CLARIANT

Here We Go

+ Integrated Report
2019

25 Years Clariant

what is precious to you?

The Clariant Integrated Report 2019 offers a detailed overview of the company's multidimensional approach to value creation, covering both tangible and intangible, and financial and nonfinancial aspects of the business.

Comprehensive details regarding the company's performance are published in several online reports: Financial information can be accessed in the online Financial Report; governance and compensation details are available in the online Corporate Governance Report and the Compensation Report; and further information on the company's commitment to sustainable value creation can be found in the online GRI Report.



THE FOLLOWING REPORTS ARE AVAILABLE ONLINE AND AS PDFS FOR DOWNLOAD:

Integrated Report
reports.clariant.com

Corporate Governance Report
reports.clariant.com/2019/corporategovernance

Compensation Report
reports.clariant.com/2019/compensation

Financial Report
reports.clariant.com/2019/financialreport

GRI Report
reports.clariant.com/2019/gri

In 2019, Clariant decided to dispose the Business Units Masterbatches and Pigments. The two Business Units concerned have been reclassified to discontinued operations in the financial reporting. Clariant's Integrated Report 2019 follows this structure for selected figures and separately reports on continuing and discontinued operations.

Performance

FINANCIAL CAPITAL in CHF m

	Continuing operations	Discontinued operations	**Total 2019**	2018
Sales	4399	2127	**6526**	6623
EBITDA before exceptional items	740	203	**943**	1018
EBITDA after exceptional items	461	158	**619**	871
EBITDA margin before exceptional items (%)	16.8	9.5	**14.4**	15.4
EBITDA margin after exceptional items (%)	10.5	7.4	**9.5**	13.2
EBIT before exceptional items	444	168	**612**	693
EBIT after exceptional items	165	124	**289**	546
Net income	–34	72	**38**	356
Basic earnings per share (in CHF)	–0.17	0.20	**0.03**	1.02
Adjusted earnings per share (in CHF)	0.87			1.50
Operating cash flow			**509**	530
Investment in property, plant, and equipment			**273**	237
Research & Development expenditures			**207**	209
Growth through innovation (%)[1]	>3.5	<0.5	**<3.0**	>3.0
Personnel expenditures[2]	1068	410	**1478**	1518
Raw material procurement	1758	884	**2642**	2948
Total assets	6681	1298	**7979**	7981
Equity			**2677**	2970
Equity ratio (%)			**33.6**	37.2
Net debt			**1372**	1374
Gearing ratio (%)			**51**	46

[1] Contains the contribution to growth of the innovation portfolio from both Top Line Innovation and Life Cycle Innovation. Potential cannibalization of existing sales by Life Cycle Innovation has not been excluded.

[2] Including own employees and external staff

INTELLECTUAL CAPITAL

	Continuing operations	Discontinued operations	**Total 2019**	2018
Patents (year-end)	>5400	>1100	**>6500**	6700
Active innovation projects	>315	>60	**>375**	>375
Of which Class 1 Projects with double-digit million sales potential or of strategic relevance	>60	>5	**>65**	>70
Scientific collaborations			**>125**	>125

MANUFACTURED CAPITAL

	Continuing operations	Discontinued operations	**Total 2019**	2018
Research & Development Centers			**8**	8
Technical Centers			**>50**	>50
Production sites	66	52	**118**	125
Countries with production facilities			**38**	39
Raw materials procured (in m t)	2.79	0.34	**3.13**	3.57
Production (in m t)[1]	3.99	0.26	**4.25**	4.34

[1] For 2018 and 2019, the production volume is based on a reduced reporting scope, which includes sites that are responsible for 95% of total production.

People

HUMAN CAPITAL in FTE (Full-time Equivalents)

	Continuing operations	Discontinued operations	**Total 2019**	2018
Total staff	11941	5282	**17223**	17901
Employees	7510	2649	**10159**	10405
Of which male	4939	1955	**6894 (68%)**	7115 (68%)
Of which female	2571	694	**3265 (32%)**	3290 (32%)
Workers	4431	2633	**7064**	7496
Of which male	4065	2538	**6603 (93%)**	6890 (92%)
Of which female	366	95	**461 (7%)**	606 (8%)
Total training hours	167150	38711	**205861**	234240
Training hours (Ø per participant)	16.7	10.0	**14.8**	15
Staff in Research & Development	>960	>90	**>1050**	>1100
Lost Time Accident Rate (LTAR: accidents with at least 1 day lost/200000 work hours)	0.15	0.13	**0.15**	0.14[1]

[1] Restated due to one reclassified injury, which was not considered by the statutory insurer as an incident but determined to be a personal health issue.

RELATIONSHIP CAPITAL

	Continuing operations	Discontinued operations	**Total 2019**	2018
Employee participation in engagement survey			**n.a.[1]**	2466
Raw material suppliers[2]	3503	3896	**6805**	7000
Raw material supply base by spend covered by sustainability evaluations (%)	80	74	**78**	74
Survey responses obtained from customer contacts			**n.a.[1]**	2791
Customers who want to continue doing business with Clariant (%)			**n.a.[1]**	90

[1] Survey is conducted every two years.

[2] Duplicate counts possible. One supplier may supply to continuing and discontinued operations.

Planet

NATURAL CAPITAL[1]

	Continuing operations	Discontinued operations	**Total 2019**[2]	2018
Total energy consumption (in m kWh)	2400	652	**3058**	3209
Energy consumption (in kWh/t production)	601	2547	**720**	739
Total water consumption (in m m^3)	25.7	17.3	**44.3**	49.0
Total wastewater generation (in m m^3)	6.7	3.7	**11.9**	12.6
Total greenhouse gas emissions (Scope 1 & 2 CO_2 equivalents) (in m t)	0.68	0.16	**0.84**	0.93
Total indirect greenhouse gas emissions (Scope 3 CO_2 equivalents) (in m t)			**4.99**	5.69
Greenhouse gas emissions (Scope 1 & 2 CO_2 equivalents) (in kg/t production)	171	609	**198**	215
Total quantity of waste (in thousand t)	215.7	32.6	**250.2**	232

[1] Every three years, Clariant validates environmental data from all production sites. The last full reporting campaign was in 2017.
In the interim years, including 2018 and 2019, the reduced reporting scope comprises the larger sites responsible for 95% of production.

[2] The difference in the sum of continued and discontinued operations compared to the group total is due to the resource consumption of non-production sites.

Integrated Report
2019

Clariant's integrated reporting is based on a framework developed by the International Integrated Reporting Council (IIRC). The IIRC promotes sustainable change through a holistic approach to corporate reporting that focuses on both financial and nonfinancial value creation.

Integrated Reporting extends traditional formats of corporate disclosure in order to communicate the full range of factors that significantly affect a company's ability to create value through its business model. In this fourth annual report published in the form of an Integrated Report, Clariant provides a comprehensive overview of its value-creation process. The resources Clariant uses and affects are categorized into the following six »capitals«: financial, intellectual, manufactured, human, relationship, and natural.

Financial capital

The pool of funds available to the company for use in the production of goods or the provision of services. This can include funds obtained through financing, such as debt, equity, or grants, and funds generated by the company, for example, through sales or investments.

Intellectual capital

Knowledge-based intangibles used and created by the company, often in collaboration with partners. This can include intellectual property, such as patents, trademarks, copyrights, software, rights, and licenses, and »organizational capital,« such as tacit knowledge, systems, procedures, and protocols.

Manufactured capital

Manufactured physical objects, such as buildings, equipment, and products. These can include objects that are available to the company for use in the production of goods or the provision of services, or that the company produces for sale to customers or for its own use.

Human capital

The company's staff and its composition, competencies, capabilities, experience, and motivation to innovate. This can include employees' alignment with corporate values and their ability to understand and implement the company's strategy.

Relationship capital

Key relationships, including those with significant groups of stakeholders and other networks. This can include shared values, the trust and willingness to engage, and related intangibles associated with the company's brand and reputation.

Natural capital

Renewable and nonrenewable environmental resources and processes that support the past, current, or future prosperity of the company or are affected by it. Examples can include resources related to air, water, and land that are utilized or impacted by emissions.

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Improving Performance by Focusing on Sustainability and Innovation

Mr. Kottmann, how did Clariant perform this past financial year? Are you satisfied?
The fact that we improved profitability and increased sales by 3 % in a difficult economic environment clearly demonstrates our company's ability to perform. We are in a very good position relative to our competition. In my opinion, this is proof that we are on the right track with our long-term strategy. At the same time, we have made significant progress in transforming Clariant in order to continue to increase sales, achieve higher profitability, and a stronger cash flow.

But were there other surprising developments at Clariant in the past financial year?
Absolutely. In the middle of the year, we had to announce Ernesto Occhiello's departure as CEO and a provision for a possible antitrust fine from the EU Competition Commission. Added to this were the expanded sales plans for the entire Masterbatches business, the separation of continuing and discontinued operations, as well as the suspension of negotiations with SABIC regarding a merger of the businesses.

The failure of the joint venture with SABIC was a surprise to many. How did it happen and how is Clariant doing now?
After the announcement of the planned joint venture with SABIC in 2018, we conducted extensive discussions and carefully reviewed the project once again based on current information. Unfortunately, we were unable to reach an agreement on the value based on this. This was not least due to the fact that, from our point of view, there were far fewer synergies than were originally identified. Pushing the matter through at all costs with the motto »Close your eyes and press forward« would definitely have been the wrong way to go. We have therefore ended these discussions for the benefit of all shareholders. It was simply a business decision.

In response to the second part of your question:
We continue to focus even more on the higher-margin specialty chemicals business. We already have this type of portfolio with Care Chemicals, Catalysis, and Natural Resources. And we are separating ourselves from businesses with more standardized products, such as Masterbatches and Pigments. We already announced this intention in 2015/2016. At the same time, we will adjust our cost structures to the new company size. We are working to change the organization accordingly. So we will first get smaller, but much more profitable by doing so. This focus leads to additional value creation for Clariant, its employees, customers, and shareholders.

How is Clariant progressing with the announced divestments? Other competitors also want to sell their businesses.
With the sale of Healthcare Packaging to Arsenal Capital Partners, which was completed in October, we made a successful start to the planned divestments. Shortly before the end of the year, we signed an agreement with the American company PolyOne, who would like to take over our Masterbatches business. We were able to achieve very good sales prices for both transactions, so we expect an inflow of around CHF 1.8 billion. This is in addition to the proceeds for the Pigments business, for which we are currently looking for a buyer. I am very confident that we will be successful with this in 2020.



Executive Committee
Patrick Jany (Chief Financial Officer, CFO), Hariolf Kottmann (Executive Chairman),
Bernd Hoegemann (Member of the Executive Committee), Hans Bohnen (Chief Operating Officer, COO)

What will be done with the proceeds from the sales?
We want to continue to invest in the innovative strength of our remaining core Business Areas and continue to deleverage, that is, strengthen our balance sheet. We also want to pass on a large part of the proceeds to our shareholders as an extraordinary distribution of CHF 3.00 per share, provided the Annual General Meeting agrees to this. In addition, we want to share our business success with our shareholders and pay out a distribution of CHF 0.55 per share through capital reduction by way of par value reduction.

What other topics were on the agenda in the past financial year?
The focus of our actions is always on our customers and their needs. And not just in day-to-day business, but also at events and trade shows such as inCosmetics, the European Coatings Show, or the K Show, the leading trade fair for the plastics industry.

The topic of sustainability in particular continues to gain more importance. It was not a matter of chance that »Add value with sustainability« has been an essential element of our strategy since 2014. In the past year, we assessed our business activities against the United Nations' Sustainable Development Goals (SDGs), which we very much welcome. In doing so, we were able to demonstrate how the implementation of our strategy makes a positive contribution to achieving the SDGs. This includes the provision of innovative and sustainable products or initiatives such as the »Alliance to End Plastic Waste,« of which we are a founding member. We also support the Responsible Care™ Charter, which is important for our industry, and commit to the United Nations Global Compact. In 2019, we also joined the World Business Council for Sustainable Development (WBCSD).

What successes are there to report in terms of sustainability?
One of the many positive results of our commitment is that we have been a member of the Dow Jones Sustainability Index, an equity index for sustainable investment, for the seventh time in a row. We are proud to be among the top 5 % in the industry worldwide. We recently received a Bronze Class award in the SAM Sustainability Yearbook 2020 for this.

For me personally, when it comes to sustainability, it is particularly important that we do not take our leading role for granted. We have to strive every day to defend and maintain this position. Being able to offer products that not only perform well, but also stand out in the three sustainability dimensions of social responsibility, environmental protection, and profitability is a competitive edge. And the competition doesn't sleep.

Another important issue is compliance. What role does that play for a company like Clariant?
The company's and its employees' adherence to laws and voluntary obligations, which is what compliance is, is a matter of course. It is based on strict compliance management, meaning a structured framework of internal rules and guidelines, and is the basis for risk minimization as well as the preservation of our reputation. Compliance ultimately ensures our license to operate. Just like with the topic of sustainability, you cannot let go of the reins here. The threat of a cartel fine shows how the misconduct of a single employee can cause significant damage to the company. This only serves to justify the high level of importance that is placed on compliance in the company. We launched an internal campaign in 2019 because we do not tolerate any violation of our compliance rules. We also want to introduce a new, updated Code of Conduct this year. We will therefore continue to deal with the issues of sustainability and compliance intensively in 2020.

How do you assess the general conditions for 2020?
The business and economic environment will remain difficult in 2020. The geopolitical risks in the Middle East, for example, the ongoing trade conflicts, and the UK's exit from the European Union continue to create uncertain conditions for specialty chemicals companies like Clariant. We also have to expect that the spread of the coronavirus will have a negative impact on global economic growth. Our industry is therefore facing the growing challenges of climate protection and sustainability in a difficult economic environment.

What are the challenges specific to Clariant in 2020?
For Clariant, I see 2020 as a year of transition on the way to significantly improved profitability. Our main tasks are to successfully complete the divestments, to achieve the expected very good results in our core Business Areas, and to consistently implement our efficiency program with regard to the cost structures in order to prepare for the new company size. In addition, the search for a suitable CEO will take priority. We have clear goals for 2020 and 2021. In order to achieve these goals, we will focus on the proven corporate strategy. That means we continue to concentrate on innovation and sustainability, on portfolio management, as well as on growth in existing businesses and on further increasing our profitability.

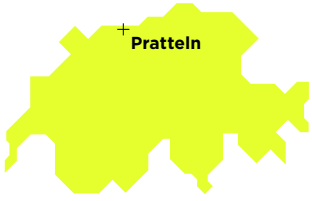
Clariant celebrates its 25th anniversary with the motto »Change: on.« Why this motto?
Our world is characterized by constant change. Just think of digitalization, the energy sector, or what is happening in the field of mobility. Of course, this also has an impact on companies. For Clariant, change has always been a normal part of our work. Change also means progress. New solutions and new products for our customers' problems. A company that is not actively and continuously changing and transforming will sooner or later become irrelevant.

I would therefore like to take this opportunity to thank our customers, employees, and shareholders for their commitment and trust, especially against the backdrop of our diverse history of the past 25 years. At Clariant, things will never get boring. Change will always be part of us.

What will Clariant 2021 look like?
Based on the current objectives, in 2021, Clariant will be a company with around CHF 1.5 billion less in sales than in 2019. However, the portfolio will contain a significantly higher proportion of businesses focused on specialty chemicals. This will make this new company stronger in terms of growth and profitability. This is the basis of our considerations and plans today.

However, we should never forget that Clariant – like most other companies – still has all the basic strategic options available, even in the current phase – be it a transformative acquisition or a merger. As I said: the change continues!

SWITZERLAND



Complying with Best Practice in Corporate Governance

Dear Shareholders

Good corporate governance is very important to Clariant. The Clariant Board of Directors has therefore decided to establish the formal role of an Independent Lead Director as long as the Chairman of the Board of Directors simultaneously serves as Executive Chairman. Clariant thereby follows the guidelines of the Swiss Code of Best Practice for Corporate Governance. This stipulates that, in the event of such a dual role, the company must ensure adequate control mechanisms by the Board of Directors appointing a non-executive, experienced member as Lead Director.

The role and responsibility of an Independent Lead Director is to ensure the independence of the Board of Directors from the Chairman, the CEO, and the Group's management, and to support the Chairman and CEO. The tasks also include supervising Group management, particularly with regard to compliance with the law, the articles of association, regulations, and instructions. The Lead Director becomes the mediator between the Chairman and the Board of Directors as needed. The Lead Director ensures communication by convening and chairing a Board of Directors meeting at the request of a member of the Board of Directors or the CEO. In the absence of the Chairman, the Independent Lead Director chairs meetings of the Board of Directors. Furthermore, the Independent Lead Director is available to members of the Board of Directors to discuss matters they would like to raise in the absence of the Chairman.

My role as Lead Director will end as soon as a new CEO has been appointed and Clariant once again has two people for the positions of CEO and Chairman.

On behalf of the Board of Directors, I would like to take this opportunity to thank you, our shareholders, for the trust you have placed in us.

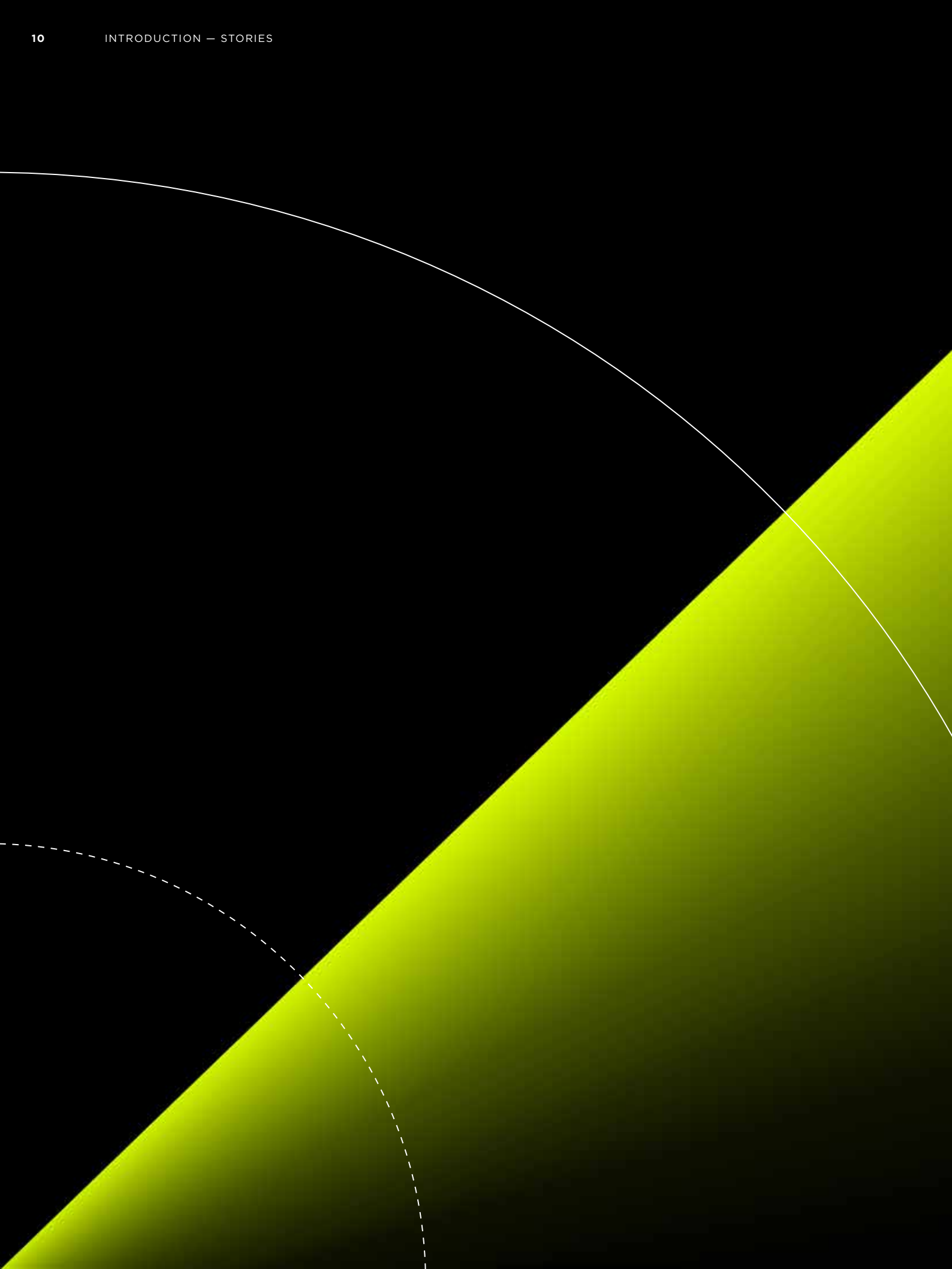
Sincerely,

E. Saupper

Eveline Saupper
Independent Lead Director



Eveline Saupper
Independent Lead Director



Here We Go

In this Integrated Report we take our time to review our position in all the areas we are active in. We explore trends that can guide our progress. We examine new developments that show up on our radar. How close are they to what truly matters to us? And are we trendsetters or followers? This report provides answers. It shows where we stand today and where we want to go from here regarding the most material topics of our Materiality Matrix. → PAGE 27

Innovation and Technological Advances
032 **Make Use of Nature's Design Process**

Talent Attraction and Development
048 **Find Skills for the Digital Age**

Digitalization
064 **Manage Risks Faster and Smarter**

Product Stewardship/Sustainable Chemistry
080 **Advance Natural Ingredients**

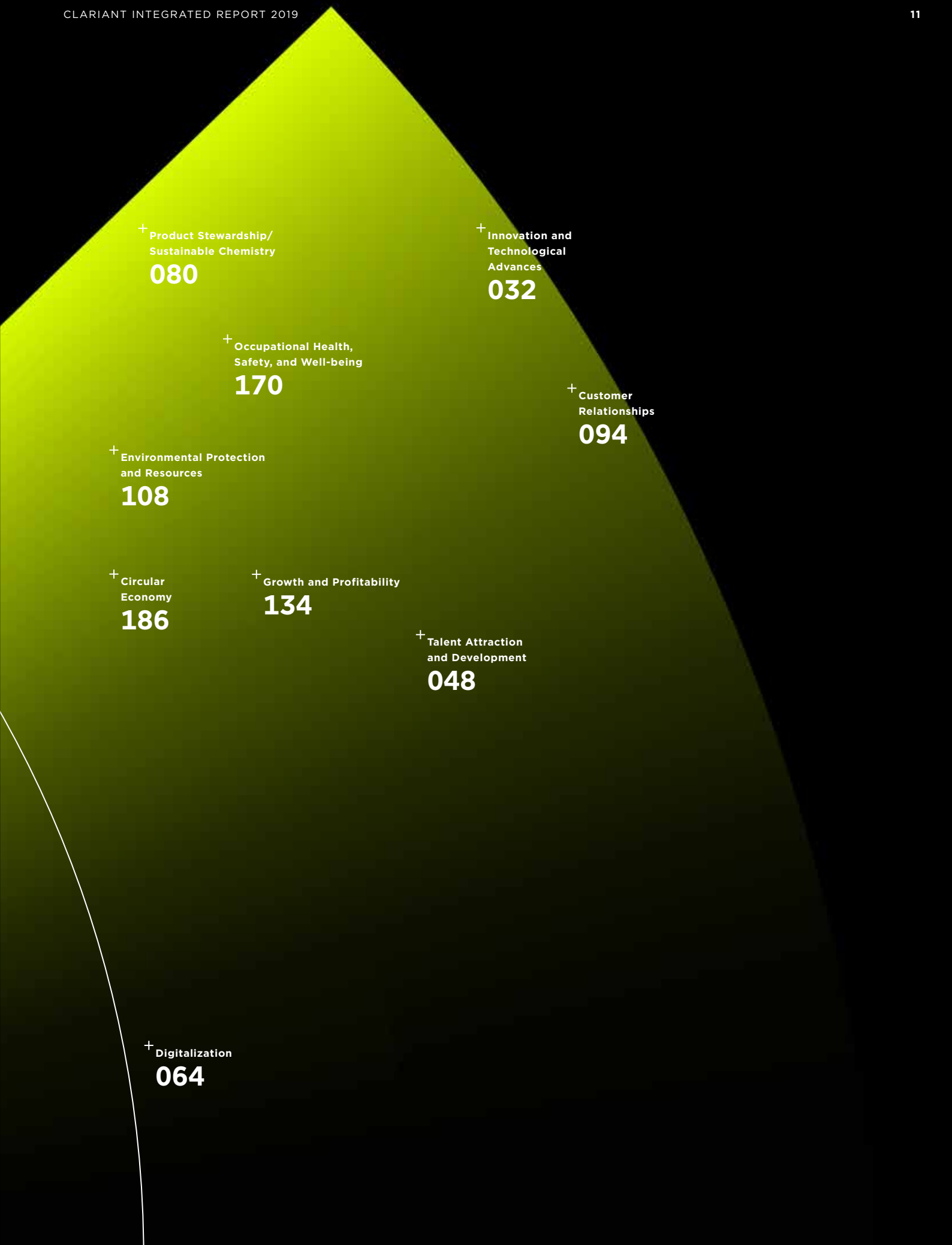
Customer Relationships
094 **Be a Local Partner**

Environmental Protection and Resources
108 **Help Cities Move Forward**

Growth and Profitability
134 **Focus on the Core Businesses**

Occupational Health, Safety, and Well-being
170 **Keep the Team Safe**

Circular Economy
186 **Drive Change in the Industry**


+ Product Stewardship/ Sustainable Chemistry
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+ Growth and Profitability
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+ Talent Attraction and Development
048
+ Digitalization
064

The Foundation of Success

The »Foundation of Success« chapter provides an in-depth overview of Clariant's holistic approach to creating added value. It delves into each layer of Clariant's integrated business model, from the external business environment to the three internal value-creation processes, and details how each supports the Business Areas in achieving key outcomes for the company and its stakeholders.

014 Trends in the Specialty Chemicals Value Chain

016 Operating an Integrated Business Model

020 Building on Vision, Mission, and Values

022 Internal and External Stakeholder Engagement

024 Addressing Societal Needs

026 Materiality Assessment

028 Becoming a More Focused Specialty Chemicals Company

032 Make Use of Nature's Design Process

042 Overview on Corporate Governance

046 Leadership in Times of Change

048 Find Skills for the Digital Age

054 Overview on the Compensation Policy

056 Core Processes for Value Creation

064 Manage Risks Faster and Smarter

Whether short-term or long-term, value creation depends on a combination of assets, whether financial or nonfinancial, tangible or intangible. A company must be attuned to the needs of its customers, shareholders, and other stakeholders in order to provide valuable differentiation from its competition.

Clariant's success is founded on its ability to operate with efficiency and integrity while providing innovative and sustainable solutions for its customers. Clariant's business model perfectly illustrates how the company's Business Areas transform financial and nonfinancial inputs into valuable outputs by applying the three main value-creation processes to all of its corporate activities.

Clariant's ambition to create sustainable value is guided not only by its vision, mission, and corporate values, but also by its corporate governance principles, strong leadership culture, and compensation principles.

Clariant stays attuned to the needs of its customers, employees, shareholders, and society by assessing market trends, engaging in dialog with stakeholders, and embracing their feedback to improve its business.

Trends in the Specialty Chemicals Value Chain

To create value for all stakeholders and ensure long-term success, Clariant must be agile and resilient in the dynamic specialty chemicals market environment. This is achieved by collaborating with partners to capture opportunities that mitigate the effects of the economic downturn, address the market need for sustainable solutions, and enhance differentiation with products that benefit end consumers.

1. A high-value position in an industry with great responsibilities

Chemistry is the science of transforming matter. Through chemical reactions, the chemical industry converts raw materials into more than 70 000 different products used in all sectors of the economy. The specialty chemicals industry, in which Clariant is a major global player, provides high-value and often custom-manufactured materials with specific performance and functionality and is thus a particularly customer-centric part of the chemical industry. → FIGURE 001

In the global industrial sector, chemical manufacturing is one of the largest consumers of energy, making it a significant contributor to greenhouse gas emissions. It also uses significant amounts of oil and gas as feedstock. In addition, the industry handles many hazardous materials. Although this confers great responsibility, it creates opportunities for companies to become industry leaders in sustainable development and thereby capture competitive advantage.

2. Trends concerning raw materials and basic chemical inputs

The chemical industry uses raw materials derived from crude oil, natural gas, metals, minerals, and, increasingly, biomass as a renewable organic feedstock. Basic chemical companies use these materials to make products such as polymers, bulk petrochemicals, and intermediates in large quantities, often in single-product, continuous processing plants.

Currently, these companies are facing lower prices and margins due to the global economic downturn combined with recent increases in basic chemical production capacity. As a result, after higher raw material prices in 2017 and 2018, Clariant as a buyer of these chemicals experienced lower cost pressure in 2019. This trend is expected to continue in 2020.

3. Developments in the specialty chemicals industry

Specialty chemical manufacturing is an entrepreneurial, innovative, and customer-driven part of the chemical industry value chain. To cater to customers' needs for specific chemical performance or function, specialty chemicals are often manufactured by batch processes, requiring regular changes in raw materials, operating conditions, and equipment. Compared to the continuous processing in basic chemical production, these batch processes tend to be less capital-intensive, require less energy, and result in lower CO_2 emissions.

Like Clariant, many specialty chemicals companies are divesting the parts of their businesses that are most impacted by commoditization. In addition, the industry is working to balance the need for cost control to respond to cyclical economic impacts with the necessity to engage in long-term, strategically focused innovation to develop products that meet customers' sustainability and performance needs.

4. Trends in customer markets

In general, the global economic slowdown is affecting durable products more strongly than consumer products, but customer demand develops differently for each application and market. As Clariant serves a broad mix of industries, the company has a good natural hedge against pronounced cyclical economic impacts. In addition, time-lag effects, such as the increased demand for catalysts due to investments in capacity made by customers several years ago, also decrease Clariant's exposure to the current economic cycle.

While some customers respond to current market dynamics by focusing on costs, others strengthen their position through differentiation. Whether Clariant products save customers money or differentiate their offerings, value-based pricing helps the company capture part of that benefit. Clariant also works closely with customers, scientists, and other partners to develop more sustainable products in response to increased awareness of climate change, plastic waste, sustainable chemistry, and overall circular economy needs.

5. Changing needs in end-consumer markets

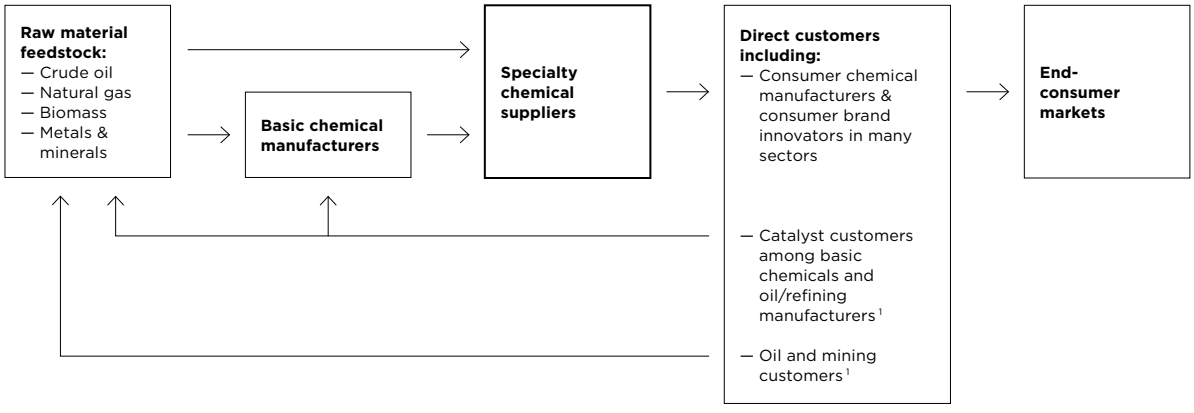
Clariant customers include producers of consumer goods who manufacture the products that end consumers use in their daily lives, such as electronic gadgets, home construction materials, and cosmetics. These end consumers are increasingly seeking more sustainable solutions (such as naturally derived cosmetics or recyclable plastics), convenience products (such as quick-dry home care formulations), or more individualized solutions (such as vegan or ethnic beauty products). These evolving demands are also changing Clariant's customers' markets.

6. A strong foundation to navigate dynamic markets

Changes in the business environment create risk, but also opportunity. Responding to such shifts allows companies to differentiate themselves and reduce the danger of margin erosion from commoditization, which is more pronounced in slow-changing industries.

Clariant's integrated business model, with its emphasis on sustainable innovation, customer collaboration, and excellence in execution, provides a strong foundation for the company to navigate the current market dynamics successfully. → **PAGE 16**

001 **THE ROLE OF SPECIALTY CHEMICALS FIRMS IN THE CHEMICAL INDUSTRY VALUE CHAIN**



1 Contribute to raw material feedstock availability

Operating an Integrated Business Model

By transforming various resources into innovative, sustainable solutions, Clariant meets the evolving needs of its customers while also creating value for shareholders, employees, and the environment. In 2019, Clariant adapted its business model to reflect its focus on three core Business Areas.

1. Pursuing a strong corporate strategy

Based on a clear vision, mission, and strong corporate values, Clariant fulfills its five-pillar strategy to achieve ambitious corporate objectives and financial targets. In 2019, Clariant successfully closed the divestment of its Healthcare Packaging business and agreed to sell its entire Masterbatches business to PolyOne, a leading global provider of specialized polymer materials, services, and solutions. The divestment of the Masterbatches business is expected to be closed by the third quarter of 2020. As part of the portfolio repositioning announced in 2018, Clariant also continued with the divestment of its Pigments business, which it expects to conclude by the end of 2020. This will allow Clariant to focus more intently on the three core Business Areas that offer differentiated products and services with above-average growth potential. → PAGE 28

2. Creating value by transforming six kinds of capital

Clariant's business model is designed to create innovative, sustainable solutions that benefit all stakeholders – customers, employees, shareholders, and the environment – by drawing on six kinds of capital: financial, intellectual, manufactured, human, relationship, and natural. Clariant categorizes these six different capitals under its brand values of Performance (financial, intellectual, and manufactured capital), People (human and relationship capital), and Planet (natural capital).

— Financial capital is the pool of funds available to produce goods or provide services. This includes funds obtained through financing, such as debt, equity, or grants, and funds generated through sales or investments. According to Clariant's Business Model, these are, for example, raw material spend as an input and the EBITDA margin as an output.
— Intellectual capital is the knowledge-based intangibles used and created by the company and its partners. This can include intellectual property, such as patents, trademarks, copyrights, software, rights, and licenses, as well as »organizational capital,« such as tacit knowledge, systems, procedures, and protocols. Examples of Clariant's intellectual capital include active innovation projects as an input and the resulting growth as an output.
— Manufactured capital includes physical objects owned by the company, such as buildings, equipment, and products. These can include objects that are used to produce goods or provide services, or materials that the company produces for internal use or sale to customers. In Clariant's business model, production facilities are an example of an input, and products awarded with Clariant's EcoTain® label are an output.

— Human capital is the company's employees, including their competencies, capabilities, experience, and drive to innovate. This form of capital includes the employees' alignment with corporate values and their ability to understand and implement the company's strategy. At Clariant, inputs include new employees hired, while outputs are, for example, a successful employee health and safety record.
— Relationship capital refers to key relationships, such as those with significant stakeholders and network partners. This capital can include shared values, trust, engagement, and related intangibles associated with its brand and reputation. For Clariant, client interviews are an input, and customer satisfaction is an output.
— Natural capital includes the renewable and nonrenewable environmental resources and processes that support or affect the prosperity of the company. Examples include air, water, and land resources that are utilized or impacted by emissions. In the Clariant business model, water consumption is an example of an input, while wastewater is an output.

3. Ensuring excellence in execution with three value-creation phases

To ensure excellence in execution throughout all business activities and realize the goals of above-market growth, high profitability, and strong cash generation, Clariant's Business Areas follow three value-creation phases:
— Idea to Market
— Market to Customer
— Customer to Cash

The Idea-to-Market process comprises all innovation-related activities that contribute to a strong innovation pipeline and subsequent output. Market to Customer covers Clariant's thrust to achieve true customer centricity in all marketing and sales processes. The Customer-to-Cash process ensures Clariant's safe, efficient production and reliable delivery of finished products and services.

Reading the report along three thematic »focus routes«

In addition to a sequential read-through, the Integrated Report 2019 can also be explored along three »focus routes« that follow the themes of innovation, customer experience, and operational excellence. To simplify navigation, the content of each focus route is highlighted with a specific color, icon, and vertical line.



IDEA TO MARKET

The Idea-to-Market focus route encompasses the innovation-themed parts of the Integrated Report. Starting with the »Idea to Market« chapter, this focus route takes readers through the Business Areas' innovation projects and an evaluation of the results achieved regarding innovation-related topics. → PAGE 56

MARKET TO CUSTOMER

The Market-to-Customer focus route ties together the sections that detail Clariant's customer-centric approach. Launching from the »Market to Customer« chapter, this focus route examines the evolution of the Business Areas' marketing and sales practices to achieve true customer centricity as well as the results achieved regarding customer-related topics. → PAGE 60

CUSTOMER TO CASH

The Customer-to-Cash focus route includes the portions of the Integrated Report that focus on Clariant's efforts to guarantee safe, reliable, and efficient operations. Starting with the »Customer to Cash« chapter, this route delves into how the Business Areas optimize procurement, planning, production, and delivery, and details the results regarding operations- and procurement-related topics. → PAGE 62

Business Model

External Environment

Societal trends and market drivers

Input (Total Group)

Resources and relationships that Clariant draws upon for its business activities.

PERFORMANCE

207
R&D spend in CHF m

2 642
Raw material procurement in CHF m

> 375
Active innovation projects

> 125
Scientific collaborations

118
Production facilities

3.13
Raw material procured in m t

PEOPLE

1 570
New employees hired

205 861
Training hours

404
Client interviews

78 %
Raw material supply base by spend covered by sustainability evaluation

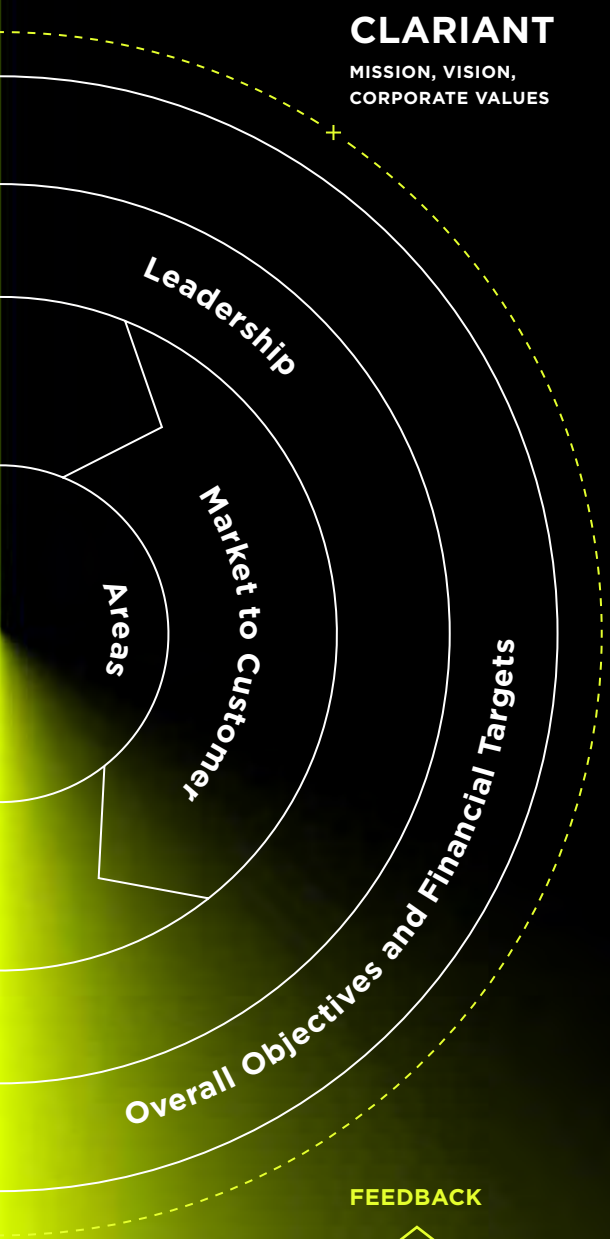
PLANET

3 058[3]
Energy consumption in m kWh

44.3[3]
Water consumption in m m^3



- Financial capital
- Intellectual capital
- Human capital
- Manufactured capital
- Relationship capital
- Natural capital



FEEDBACK

Stakeholders

Clariant constantly engages with its stakeholders to stay attuned to their needs and gain feedback on how to best create value for them.

OUTCOME ACHIEVED FOR

Output (Total Group)

Results from Clariant's business activities.

PERFORMANCE

6 526
Sales in CHF m

9.5 %
EBITDA margin after exceptional items

< 3 % [1]
Growth through innovation

> 6 500
Patents at year-end

4.25 [2]
Production volume in m t

27
Products awarded the EcoTain® label

PEOPLE

17 223
Staff in FTE at year-end

0.15
Lost time accident rate (LTAR)

PLANET

0.84 [3]
Greenhouse gas emissions (scope 1 & 2) in m t

11.9 [3]
Waste water in m m³

[1] Contains the contribution to growth of the innovation portfolio from both Top Line Innovation and Life Cycle Innovation. Potential cannibalization of existing sales by Life Cycle Innovation has not been excluded.

[2] For 2019, the production volume is based on a reduced reporting scope, which includes sites that are responsible for 95% of total production.

[3] Every three years, Clariant validates environmental data from all production sites. The last full reporting campaign was in 2017. In the interim years, including 2019, the reduced reporting scope comprises the larger sites responsible for 95% of production.

Building on Vision, Mission, and Values

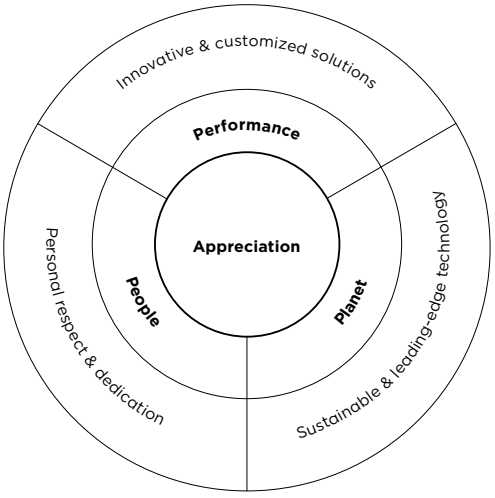
Clariant is defined by a guiding vision, well-defined mission, and a culture that encourages every employee to capitalize on their ability to create value for all stakeholders.

1. Vision and mission focused on value creation

Clariant is focused on becoming the globally leading company for specialty chemicals and standing out by achieving above-average value creation for its stakeholders. To bring this vision to fruition, the company builds and maintains leading positions in all its businesses and strives for functional excellence in innovation, commercialization, and operations as a defining part of its corporate culture. Clariant's vision is supported by its mission to create value by appreciating the needs of

— customers, by providing competitive and innovative solutions;
— employees, by adhering to corporate values;
— shareholders, by achieving above-average returns;
— the environment, by acting sustainably.

001 **BRAND VALUES WITH A FOCUS ON PERFORMANCE, PEOPLE, AND PLANET**



2. Appreciation, culture, and reputation as drivers for success

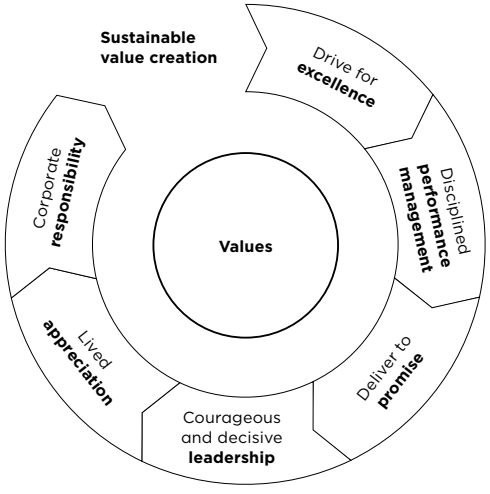
Clariant believes strongly that its brand essence of appreciation is a key driver for successful value creation. For Clariant, appreciation means putting values at the center of everything the company does in each area where it has an influence: performance, people, and the planet. → **FIGURE 001**

— Performance: Clariant appreciates its customers by striving for exceptional performance and offering innovative, customized, high-quality solutions.
— People: Clariant expresses appreciation of its stakeholders and employees with an unflagging commitment to transparency and integrity, and by fostering a culture of dialog and mutual respect.
— Planet: Clariant embodies appreciation of the planet by protecting the environment and safeguarding natural resources. By using sustainable, cutting-edge technologies, Clariant meets the most stringent standards and sets new industry benchmarks.

Cultivating a corporate culture that balances business performance, social commitments, and environmental targets while also supporting stakeholder priorities is essential to generate value and sustainable growth. Therefore, appreciation is embedded throughout the company's culture and corporate values, defining the expectations of employee behavior and building the company's reputation and brand. → **FIGURE 002**
These values include:

1. Drive for Excellence: Clariant establishes the highest standards to profitably meet customer needs while aspiring to achieve even more.
2. Disciplined Performance Management: People at Clariant set, and ask for, clear direction and challenging but achievable targets. They give, and invite, open feedback on measured progress.
3. Deliver to Promise: Clariant counts on motivated employees who fully leverage their capabilities and do not over-promise or under-deliver.

002 **CORPORATE VALUES FOR SUSTAINABLE VALUE CREATION**



4. Courageous and Decisive Leadership: Clariant chooses the right people for the right jobs, supporting risk-taking and accepting failure while learning from results.
5. Lived Appreciation: People at Clariant acknowledge strength, advise on areas for improvement, acknowledge outstanding contributions, and celebrate success.
6. Corporate Responsibility: People at Clariant attend to the welfare of all stakeholders, protect the environment, and respect communities. They live Clariant's Code of Conduct and never shortcut a safety procedure.

Internal and External Stakeholder Engagement

Continuous dialog with key stakeholders allows Clariant to stay attuned to their needs and gain insight into changing market requirements, future trends, and global developments. This helps Clariant understand the value stakeholders are seeking and to respond quickly with corresponding solutions.

1. Appreciation lies at the core of Clariant's stakeholder engagement

Clariant's key stakeholders are its customers, employees, and shareholders, as well as the environment. Clariant shows its appreciation to all its stakeholders by fostering a culture of dialog and mutual respect, dedicating itself to sustainable, innovative technologies, and unflaggingly committing to transparency and integrity. Appreciating stakeholders' needs and developing corresponding solutions that meet stringent standards and set new industry benchmarks lie at the core of Clariant's holistic approach to value creation.

2. Gaining valuable insights for value creation from ongoing stakeholder engagement

Clariant constantly engages with its stakeholders in multiple ways to stay attuned to their needs, understand their concerns, and gain valuable insights for sustainable value creation. → FIGURE 001

To understand customer needs and develop the respective solutions, Clariant focuses on building strong customer relationships. Besides daily interactions, Clariant engages with its customers in various forms, such as trade fairs, customer interviews, innovation workshops, and its biennial customer satisfaction survey. → PAGE 60 → PAGE 163

Clariant is committed to creating a collaborative working environment that focuses on its core value of appreciation. As Clariant's people are an invaluable competitive factor, the company engages with all its employees on all levels to realize the full potential of its diverse workforce. → PAGE 46 → PAGE 154

As a publicly listed company, Clariant strives to maintain a broad shareholder base and reliable long-term-oriented anchor shareholders. The company emphasizes achieving above-average returns and transparently communicating its financial and nonfinancial performance, for example, through its annual Integrated Report and regular investor updates. → PAGE 124

Protecting the environment by providing safer and more sustainable solutions is one of Clariant's top priorities. Clariant also minimizes the impacts of its operations on the environment and safeguards natural resources. → PAGE 149 → PAGE 178

As suppliers are critically important to Clariant's value creation and impact the company's overall sustainability performance, Clariant continuously analyzes spend effectiveness, reduces procurement risks, and engages with its suppliers through performance assessment reviews, the Together for Sustainability initiative (TfS), and yearly procurement events, for example. → PAGE 62 → PAGE 167 → PAGE 63

Participating in relevant public policy developments is an important aspect of Clariant's corporate responsibility. The engagement in trade associations and other platforms brings forward Clariant's views and positions on various policy areas and supports strategic alignment

001 **EXAMPLES OF STAKEHOLDER ENGAGEMENT**

Stakeholder Group	Examples of engagement formats	Key needs and concerns
Customers → **PAGE 60** → **PAGE 163**	— Daily interactions — Marketing and Innovation Excellence Initiatives: Customer interviews, innovation workshops, joint ideation, iGarage — Best practice exchange sessions — Co-branding EcoTain® — Biennial customer satisfaction survey — Trade fairs and international conferences	— On-time, in-full: quality, reliability of supply, prices — Innovative solutions — Achieving sustainability goals — Circular economy
Employees → **PAGE 46** → **PAGE 154**	— Personal dialog — Intranet, newsletters, town halls — Biennial company-wide »Pulse Survey« — Annual Performance Dialogs/360-Degree Feedbacks — MySuccess platform — Special recognition awards — »Speak-up Campaign« and »Safety Moments« — Integrity Line — Evaluation of training and development programs	— Wages, salaries, and benefits — Competence building — Leadership skills — Occupational health, safety, and well-being — Integrity — Diversity — Digitalization
Shareholders → **PAGE 45** → **PAGE 132**	— Integrated Report — Annual General Meeting and regular investor updates — Investor relations iPad application — Presentations at analyst conferences and roadshows	— Growth and profitability — Impact of climate change
Environment → **PAGE 63** → **PAGE 178**	— Corporate culture that prioritizes environmental stewardship — Innovative and sustainable products and solutions — Environmental management tools and programs — Low-Carbon Emitting Technologies in the Chemical Industry initiative of the World Economic Forum — Alliance to End Plastic Waste (AEPW)	— Minimizing impacts on the environment — Safeguarding natural resources
Suppliers → **PAGE 62** → **PAGE 167**	— Together for Sustainability initiative (TfS) — Supplier performance assessment reviews — Chemberry™ — Regularly communicating updated standard information package — Yearly procurement events — EcoTain® and other partnerships — Open Innovation initiative	— Prices, payment practice — Leadtime — Supplier Code of Conduct — Safety — Circular economy — Digitalization
Policy-makers and Civil Society → **PAGE 166**	— Engagement in trade associations, interest groups, sectorial associations, and scientific and research associations — Community dialogs — Sustainability dialog	— Governance and compliance — Sustainable chemistry — Circular economy — Bio economy

across the industry. → **PAGE 166** Clariant recognizes the opportunity offered by the United Nations Sustainable Development Goals to share a common framework of action and language when communicating with stakeholders about its sustainability performance. → **PAGE 24**

3. Stakeholder views are an integral part of Clariant's materiality assessment

Stakeholder perspectives are also an integral part of Clariant's materiality assessment. A systematic process ensures that their views are thoroughly reflected when identifying the economic, social, and environmental topics that offer the highest value-creation potential for stakeholders and Clariant. The prioritization of the topics related to performance, people, and planet helps Clariant further develop its integrated management approach. → **PAGE 26**

Addressing Societal Needs

Clariant actively contributes to advancing the Sustainable Development Goals (SDGs) adopted by the United Nations member states in 2015. These 17 goals marked a milestone on the global path to a more sustainable future, and they present a strong business opportunity for the company.

1. Tapping into market potential

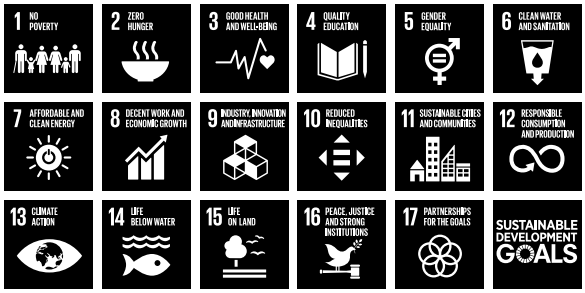
There is a growing understanding among businesses that the SDGs have the potential to unleash innovation and growth. This potential was captured by the Business & Sustainable Development Commission's »Better Business, Better World« report, which outlined USD 12 trillion of additional market value that could be unlocked by 2030 if the SDGs are achieved. → FIGURE 001

The goals provide a global framework to translate the most pressing societal and environmental needs into a common language and a defined set of actions for all stakeholders. Clariant is committed to delivering on this ambitious and transformative agenda with its innovative and sustainable products and services, sound environmental management, and by respecting human rights in its operations and supply chain.

2. Evaluating and prioritizing impact on the SDGs

In 2019, Clariant further evaluated its business activities in relation to the SDGs — including the underlying 169 targets and the corresponding indicators — by reviewing the positive and negative impacts of its products and services, operations, value chain, corporate citizenship activities, and collaborations.

001 **THE 17 SUSTAINABLE DEVELOPMENT GOALS**



Source: United Nations Department of Public Information

The analysis was done centrally by Corporate Sustainability and Regulatory Affairs, and the outcome was reviewed and validated by Clariant's Business Units, Group Technology & Innovation, and Corporate Planning & Strategy.

While Clariant contributes to all 17 SDGs in varying degrees, five priority SDGs were identified:
— SDG 3 »Good Health and Well-being« and SDG 12 »Responsible Consumption and Production«
— SDG 7 »Affordable and Clean Energy« and SDG 13 »Climate Action«
— SDG 9 »Industry, Innovation, and Infrastructure«

The five goals are clustered in three groups because SDGs 3 and 12 and SDGs 7 and 13 cannot be seen in isolation in relation to their relevance for Clariant. In addition, certain Business Units also contribute to SDG 2 »Zero Hunger,« SDG 6 »Clean Water and Sanitation,« and SDG 15 »Life on Land.«

3. Addressing the SDGs in practice

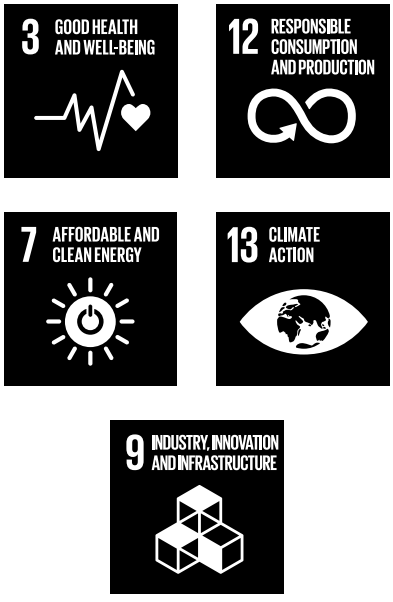
Clariant's strategy execution will result in positive progress toward the SDGs. For example, Clariant has set clear 2025 environmental targets for its operations that

drive toward continuous improvements in energy reduction, climate action, and responsible consumption and production. These targets support SDG 7 »Affordable and Clean Energy,« SDG 13 »Climate Action,« and SDG 12 »Responsible Consumption and Production.« → PAGE 178

The company also helps its markets and customers advance sustainability with its EcoTain® products and the Portfolio Value Program. With its strong product stewardship and innovation capabilities, Clariant continuously develops products and solutions that support the sound management of chemicals and waste, reduce resource consumption, and improve production efficiency. Through these efforts, Clariant supports SDG 12 »Responsible Consumption and Production.« → PAGE 149 Clariant's sunliquid® technology directly supports SDG 7 »Affordable and Clean Energy« and SDG 13 »Climate Action.« → PAGE 89

Clariant's contribution to the SDGs is further illustrated with practical examples throughout the Integrated Report. The company's holistic approach to risk management, its high-performing catalysts, and its natural clay bentonite all address SDG 9 »Industry, Innovation and Infrastructure« and SDG 12 »Responsible Consumption and Production.« → PAGE 108 → PAGE 94 → PAGE 64 With its EcoCircle initiative, which tackles the plastic waste problem, Clariant supports SDG 12 »Responsible Consumption and Production« and links to SDG 17 »Partnerships.« → PAGE 186 By developing new business in the biotechnology and biofuel sector, the company contributes to SDG 12 »Responsible Consumption and Production.« → PAGE 32 In addition, its natural active ingredients support SDG 3 »Good Health and Well-being« and are linked to SDG 15 »Life on Land.« → PAGE 80 By making the delivery of materials safer, Clariant tackles SDG 3 »Good Health and Well-being« and SDG 9 »Industry, Innovation, and Infrastructure.« → PAGE 170 The company also contributes to SDG 8 »Decent Work and Economic Growth« and SDG 9 »Industry, Innovation, and Infrastructure« by providing fair working conditions and continuous learning opportunities, by upholding growth and profitability, and by investing in digitalization. → PAGE 48 → PAGE 134

Clariant's priority Sustainable Development Goals



Materiality Assessment

Clariant regularly conducts comprehensive materiality assessments in order to assess which material topics have the greatest impact on long-term value creation. The prioritization of material topics related to performance, people, and planet is well aligned with Clariant's strategic pillars.

1. Ongoing assessment of material topics
Clariant continually assesses the materiality of economic, environmental, and social topics. In 2017, a comprehensive materiality assessment identified and prioritized the issues that were most relevant to Clariant and its stakeholders. In 2018, discussions with stakeholders and management indicated that the topics of Circular Economy and Digitalization were increasing in importance, and consequently, the materiality matrix was updated. The materiality assessment review in 2019, however, did not reveal any change in relevance of any particular topic.

2. Based on recognized standards and procedures
The 2017 comprehensive materiality assessment was based on two internationally recognized frameworks: the Integrated Reporting 〈IR〉 framework issued by the International Integrated Reporting Council (IIRC) and the sustainability reporting standards of the Global Reporting Initiative (GRI). First, Clariant compiled an extensive list of economic, environmental, and social topics that are included in these frameworks as well as in others, such as those of the Sustainability Accounting Standards Board (SASB), the UN Global Compact, and the UN Sustainable Development Goals. The list was supplemented with Clariant's previously determined material topics and topics defined by peers. The resulting list of over 400 topics was then consolidated to less than 50.

Second, the materiality of each topic was evaluated by stakeholders who provided feedback on the relevance for Clariant from their point of view and senior Clariant managers who assessed the importance for Clariant's value creation. The latter assessment included the possible influence of each topic on strategy development and achievement, market positioning and growth opportunities, risk and reputation management, and compliance. By considering the risks and opportunities, Clariant indirectly accounted for impacts on sustainable development.

3. Broad stakeholder inclusion
As part of the 2017 assessment, external and internal stakeholders were asked to share which topics they deemed most relevant to future value creation. Clariant applied carefully defined selection criteria in order to ensure a balanced representation of interests. Worldwide surveys of management and stakeholders were conducted with the latter offered in English, German, Spanish, Portuguese, and Mandarin.

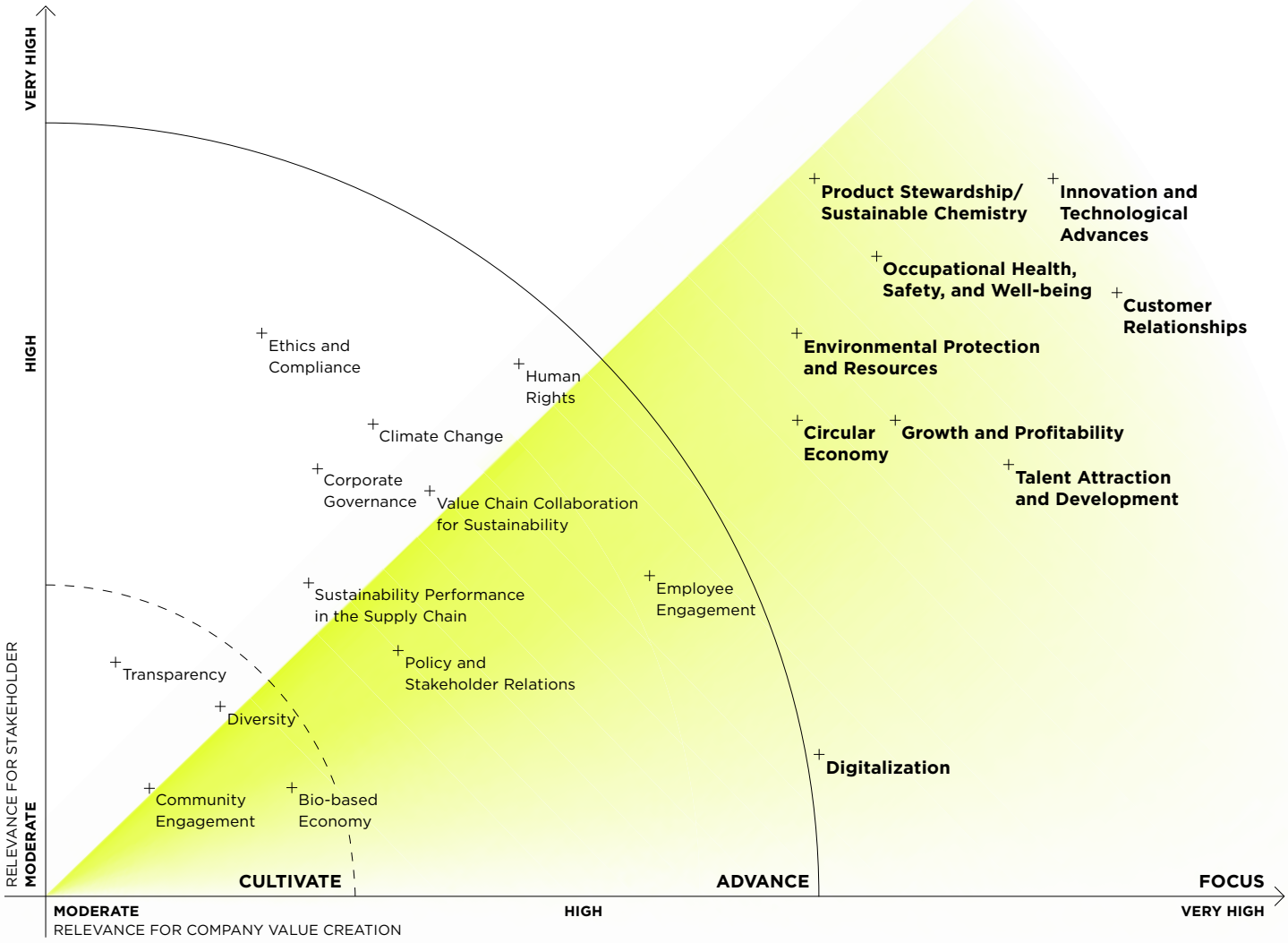
Overall, 131 external stakeholders, 69 employees, and 36 managers gave feedback. External stakeholder respondents included customers, non-governmental organization representatives, sustainability experts, scientists, and suppliers. Senior management evaluated and validated outcomes in a workshop.

4. Materiality Matrix

The Clariant Materiality Matrix summarizes the results of the materiality assessment. → **FIGURE 001** Topics considered moderately to highly relevant for Clariant's value creation are shown on the horizontal axis, while the relevance of the topics for stakeholders are depicted on the vertical axis.

The topics fall into three categories: Cultivate, Advance, and Focus. Focus topics are at the core of Clariant's ability to create long-term value; further improvements regarding Advance topics will allow Clariant to better meet expectations; Cultivate topics support successful value creation in the future.

001 **CLARIANT MATERIALITY MATRIX**



Current developments, activities, and achievements for each material topic can be found throughout the Integrated Report, especially in the Multicapital Review. → **PAGE 122**

For Focus topics as well as for Advance topics, Clariant has formulated dedicated management approaches that can be found in the GRI Report. → **REPORTS.CLARIANT.COM/2019/GRI**

Focus topics are further illustrated with practical examples: Customer Relationships → **PAGE 94**, Circular Economy → **PAGE 186**, Digitalization → **PAGE 64**, Environmental Protection and Resources → **PAGE 108**, Growth and Profitability → **PAGE 134**, Innovation and Technological Advances → **PAGE 32**, Occupational Health, Safety, and Well-being → **PAGE 170**, Product Stewardship/Sustainable Chemistry → **PAGE 80**, Talent Attraction and Development → **PAGE 48**

Becoming a More Focused Specialty Chemicals Company

In its three core Business Areas, Clariant focuses on developing differentiated, customer-specific products and offerings that have attractive growth prospects and above-average value potential. The alignment of Clariant's five-pillar corporate strategy with most material topics, must-win battles, and the company's excellence program supports the achievement of these goals.

1. Same goal, different means

Given current market conditions, Clariant and SABIC decided in 2019 to suspend discussions on creating a joint High Performance Materials (HPM) Business Area in order to protect the best interests of the respective shareholders of both companies. Consequently and as announced in 2015, Clariant continued focusing on its high-value specialty portfolio and decided to divest one third of its activities.

Clariant successfully divested its Healthcare Packaging business in 2019 and continued the divestments of its Pigments business and entire Masterbatches business. In the latter case, Clariant agreed to sell the business to PolyOne, a leading global provider of specialized polymer materials, services, and solutions. This divestment is expected to be closed by the third quarter of 2020. In addition to strengthening the company's balance sheet and returning capital to shareholders, the proceeds from the divestments will be used to invest in innovations and technological applications within Clariant's core Business Areas.

2. Guiding objectives underpin Clariant's vision and mission

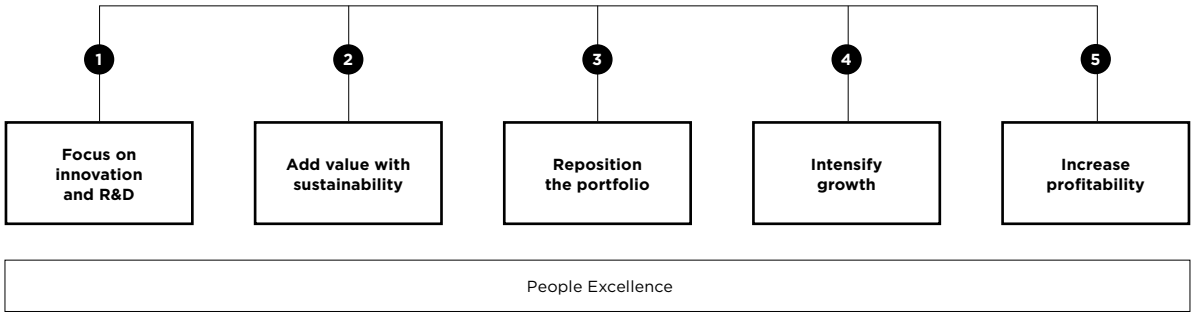
Clariant focuses on guiding objectives related to its different stakeholder groups. The company strives to

— be known as a powerhouse for R&D and innovation and increase value by applying a forward-looking sustainability lens to operations and market offerings;
— serve markets with future perspectives and strong growth rates and focus on businesses with good competitive positions;
— be a publicly listed company with a broad shareholder base, reliable long-term anchor shareholders, and a strong reputation for above industry-average profitability, growth, and Total Return to Shareholders (TRS); and
— be a preferred employer.

3. Staying the course on the five-pillar strategy

Clariant continues to be guided by its five-pillar strategy. With the ongoing divestment of the Business Units Pigments and Masterbatches, the company focused on the reposition the portfolio pillar in 2019. With the resulting, more streamlined portfolio structure, Clariant will be able to intensify its focus on customer experience and fast, reliable customer fulfillment, as well as on the development of innovative and sustainable products and applications. This will further support the first two strategic pillars, focus on innovation and R&D and add value with sustainability. With cutting-edge innovation formats, such as the iEngine and the iGarage, and the introduction of a strategic innovation process, Clariant strengthened the first pillar, focus on innovation and R&D, considerably in 2019. With 68 % of the screened

001 **THE FIVE-PILLAR STRATEGY**



continuing operations' product portfolio meeting the company's sustainability definition, the launch of new sustainability designators, its EcoCircle initiative, and being listed in the top 5 % of companies in the Dow Jones Sustainability index, Clariant's efforts in 2019 regarding the second pillar, add value with sustainability, were highlighted. Regional growth initiatives in China and North America, as well as the ongoing Clariant Excellence programs, further strengthened the two strategic pillars, intensify growth and increase profitability. → **FIGURE 001**

4. Strategic pillars well aligned with most material topics

The strategic pillars are well aligned with the topics deemed most material for Clariant and its stakeholders. The material topic Innovation and Technological Advances corresponds to the first strategic pillar, focus on innovation and R&D. The topics of Product Stewardship/Sustainable Chemistry, Circular Economy, Environmental Protection and Resources, Occupational Health, Safety, and Well-being, and Customer Relationships are all essential aspects of the second strategic pillar, add value with sustainability. The pillar portfolio repositioning toward high-value specialties is linked to multiple material topics. The fourth strategic pillar, intensify growth, and the fifth strategic pillar, increase profitability, correspond primarily to the material topic Growth and Profitability. All five strategic pillars are underpinned by Clariant's People Excellence initiative, for which the material topic of Talent Attraction and Development is important. By capturing digital business model opportunities and digitally enabled operating models, the material topic Digitalization supports all five pillars with new business models, data science, robotics and automation, and digital operating models. → **PAGE 26**

5. Strategic Management Process underpins must-win battles

Clariant's Strategic Management Process (SMP), conducted by the Business Units in collaboration with Corporate Planning & Strategy, ensures that overall strategy development is an iterative process at the Group level as well as for the Business Units. Each Business Unit addressed the megatrends observed by Clariant – Digitalization, Future of Oil, Future of Plastics, Future of Transportation, and Circular Economy – contributing to the Business Units' strategy development. The strategy update for each Business Unit was presented to the Board of Directors in December 2019. In the course of the SMP, must-win battles for each Business Unit were also developed. Overall, 31 must-win battles in line with the five strategic pillars were identified. → **FIGURE 002**

Must-win battles are the focus areas for the Business Units' strategy implementation and are aligned with strategic investment activities, such as enhancing investments in China and North America, which both present significant growth potential.

002 **EXAMPLES OF MUST-WIN BATTLES OF ONE OR SEVERAL BUSINESS UNITS**

Corporate strategic pillars	High-level sample content of must-win battles 2019 – 2021
Focus on innovation and R&D	— Enhance focus and accelerate innovation process execution — Innovate through digitally enhanced business models and customer interfaces
Add value with sustainability	— Differentiate with EcoTain® products; sustainable manufacturing with renewable raw materials — Accelerate solutions to circular economy/recycling through product and/or formulation innovations
Reposition the portfolio	— Strengthen portfolio in existing and adjacent markets through cost-effective investments — Review portfolio mix by focusing on high-value-added products
Intensify growth	— Grow above markets and strengthen presence in Asia and North America — Become a leading solution provider and preferred partner for customers through geographical expansion, diversification of customer base, and new business development
Increase profitability	— Enhance customer orientation by creating customer value proposition — Increase collaboration with key accounts and local heroes — Optimize operating model according to market needs — Optimize spend effectiveness and asset utilization

6. Investments in growth regions

China is the largest chemical-producing global region and is expected to also become the largest chemical market. Trends such as urbanization, mobility, stricter environmental regulations, and the industry and market shift toward specialty chemicals create opportunities for Clariant with its focus on safety, compliance, customer experience, excellence in execution, and sustainability. Clariant's new head of Region China, together with the Region China top management team, will ensure the »Fringe to Core« strategy to bring Clariant's China business to the fore, which includes investment in the One Clariant Campus, an integrated regional headquarters and innovation facility being built in Shanghai.

In North America, following significant investment in its Midland, Texas, and Clinton, Oklahoma, facilities, Clariant opened two new facilities in 2019. With its new High-Throughput Experimentation (HTE) laboratory in Houston, Texas, Clariant is the first company to adopt HTE technology, which achieves optimized formulations in a rapid time frame, as a standard tool for the Oil and Gas industry. → **PAGE 142**

The new Clariant Consumer Care Innovation Center (CCIC) near New York strengthens collaborative innovation with North America's consumer care brands by focusing on trends impacting North American consumers, where the need for convenient products for busy lifestyles overlaps with the demand for more sustainable products. → **PAGE 76**

7. Financial targets and overall objectives

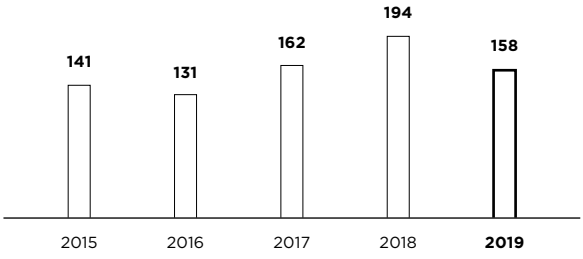
Plans for executing the Business Unit strategies and must-win battles underpin the development of financial plans for each Business Unit, which are refined alongside the Group financial targets. Regarding growth, the Business Areas Care Chemicals and Natural Resources are expected to deliver an annual sales growth of 5 – 7 %, while Catalysis is expected to deliver a 6 – 9 % sales growth per year. With respect to EBITDA margin ambitions, expectations are 18 – 20 % for Natural Resources, 19 – 21 % for Care Chemicals, and 26 – 30 % for Catalysis.

EXPECTED SALES GROWTH AND EBITDA MARGIN AFTER EXCEPTIONAL ITEMS

	Care Chemicals	Catalysis	Natural Resources
Sales growth expectations p.a.	5 – 7 %	6 – 9 %	5 – 7 %
EBITDA margin ambition	19 – 21 %	26 – 30 %	18 – 20 %

With respect to Group financial targets, Clariant expects its continuing businesses to achieve above-market growth, higher profitability, and stronger cash generation based on its focused, high-value specialty portfolio.

003 **NET BENEFIT BY CLARIANT EXCELLENCE** in CHF m



8. Clariant Excellence supports value creation

Clariant Excellence (CLNX), the company's Business Excellence program, supports the Business Units in their strategy execution. Over the last decade, the program evolved from focusing on operational efficiency to becoming a holistic driver for profitable growth. The program comprises Clariant Innovation Excellence (CIX), Commercial Excellence (CCE), and Operational Excellence (COX), which includes excellence in Procurement, Production, and Supply Chain, as well as Clariant People Excellence. In total, CLNX projects delivered estimated net benefits of CHF 158 million in 2019, of which CHF 112 million were cost savings. → **FIGURE 003** → **PAGE 56** → **PAGE 60** → **PAGE 62**



Make Use of Nature's Design Process

Innovation and Technological Advances

Engineering serendipity

Clariant's Biotechnology Center in Planegg near Munich uses nature's playbook to find powerful biochemicals and new business opportunities.

Contribution to SDGs

This story is an example of Clariant's contribution to SDG 12.
Read more on → PAGE 24



The history of scientific discovery is full of happy accidents. From X-rays to penicillin and from rubber tires to Velcro – some of humanity's most consequential discoveries and inventions were to some degree hard-earned flukes. Purposefully engineering the right conditions for serendipity to strike may then be the best way to drive innovation. This is exactly what Clariant does at its biotechnology research facility – by using a Nobel Prize-winning mix of high tech and natural diversity.

»You're looking at the first step in scaling up our fermentation,« says Lina Tubes, a scientist in the fermentation and downstream team at the Clariant Biotech Center (CBC) near Munich, as she points to a row of small glass containers filled with a bubbly brownish fluid and entangled in a seemingly chaotic mess of tubes, cables, valves, and displays. The air is filled with the whirr of countless pumps and fans as well as a distinctly yeasty smell. Lina Tubes works on industrializing fermentation and downstream processes. »A process that works in a glass bottle is one thing,« she says as she leads us along another row of ever larger stainless-steel reactors. »Getting the same fermentation to work in an industrial fermenter measuring many cubic meters poses a whole range of challenges every time,« she says. For a start, there are inevitable differences in temperature and pressure throughout such a large vessel that the fickle microorganisms need to cope with.

Precision fermentation – the art of getting microorganisms to produce specific and often complex organic molecules such as proteins – lies at the heart of most biotechnological productions. And it is the core driver in the CBC's efforts to develop new business in the biotechnology and biofuel sector. The CBC was established in 2015 to bundle and intensify all of Clariant's endeavors in industrial biotechnology. There are currently over 100 people working at the CBC. It is located in Planegg. The small suburb of Munich is home to an impressive cluster of biotech firms. Both the biotech campus of the Ludwig Maximilian university and the renowned Max Planck Institute of Biochemistry are just a few minutes away. In fact, the Max Planck cafeteria is a lunchtime hotspot for biotech professionals. »Being on the head chef's menu mailing list is a must for anyone who works around here,« says Michael Zavrel, who heads Development and Biomanufacturing at the CBC.

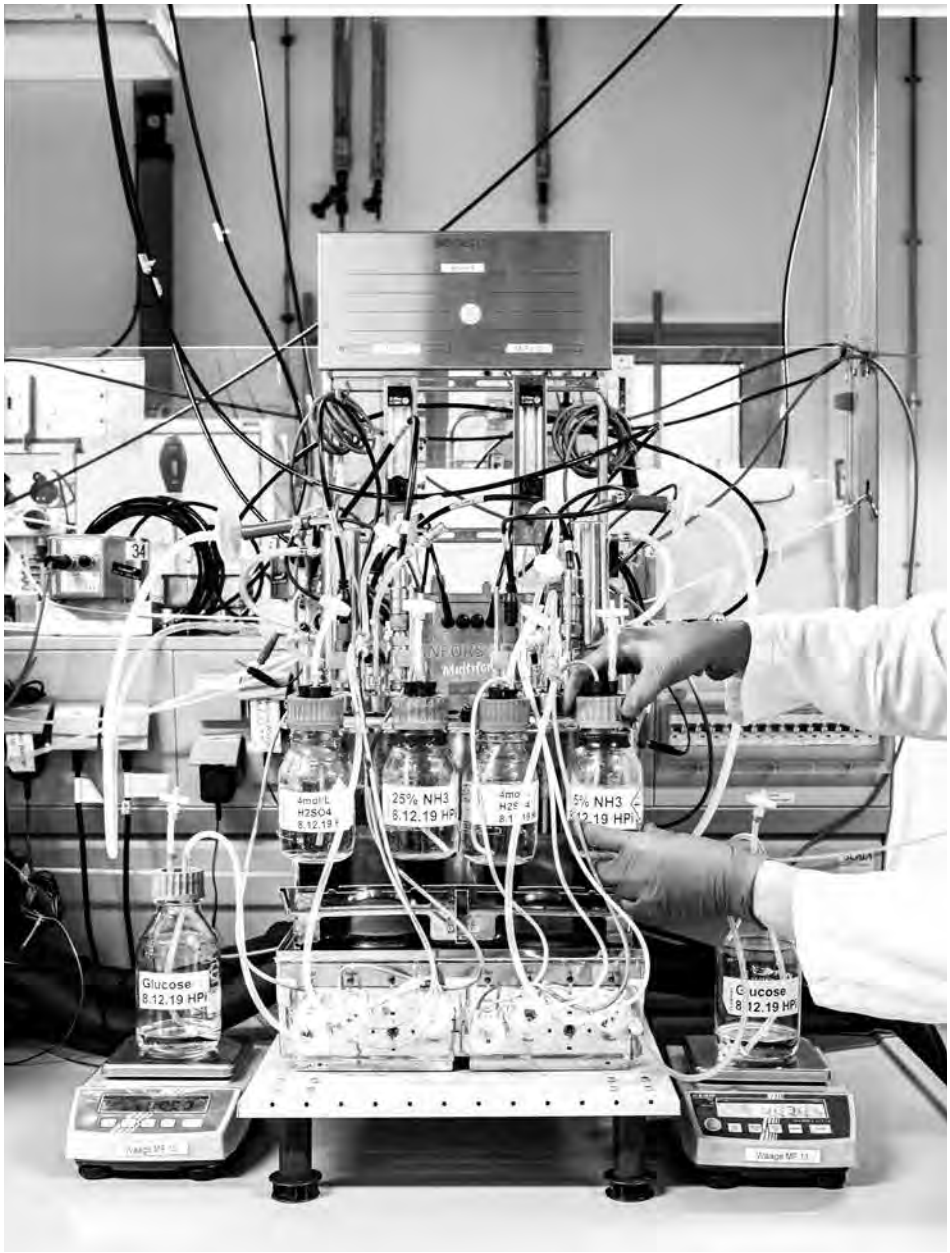
001 Going strong
The CBC was established in 2015 to intensify Clariant's endeavors in industrial biotechnology.

002 Starting small
Scaling up biotechnological processes for industrial use is an important part of the work at CBC.

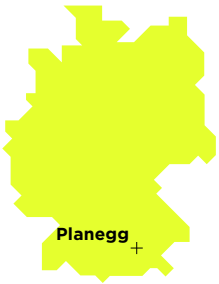


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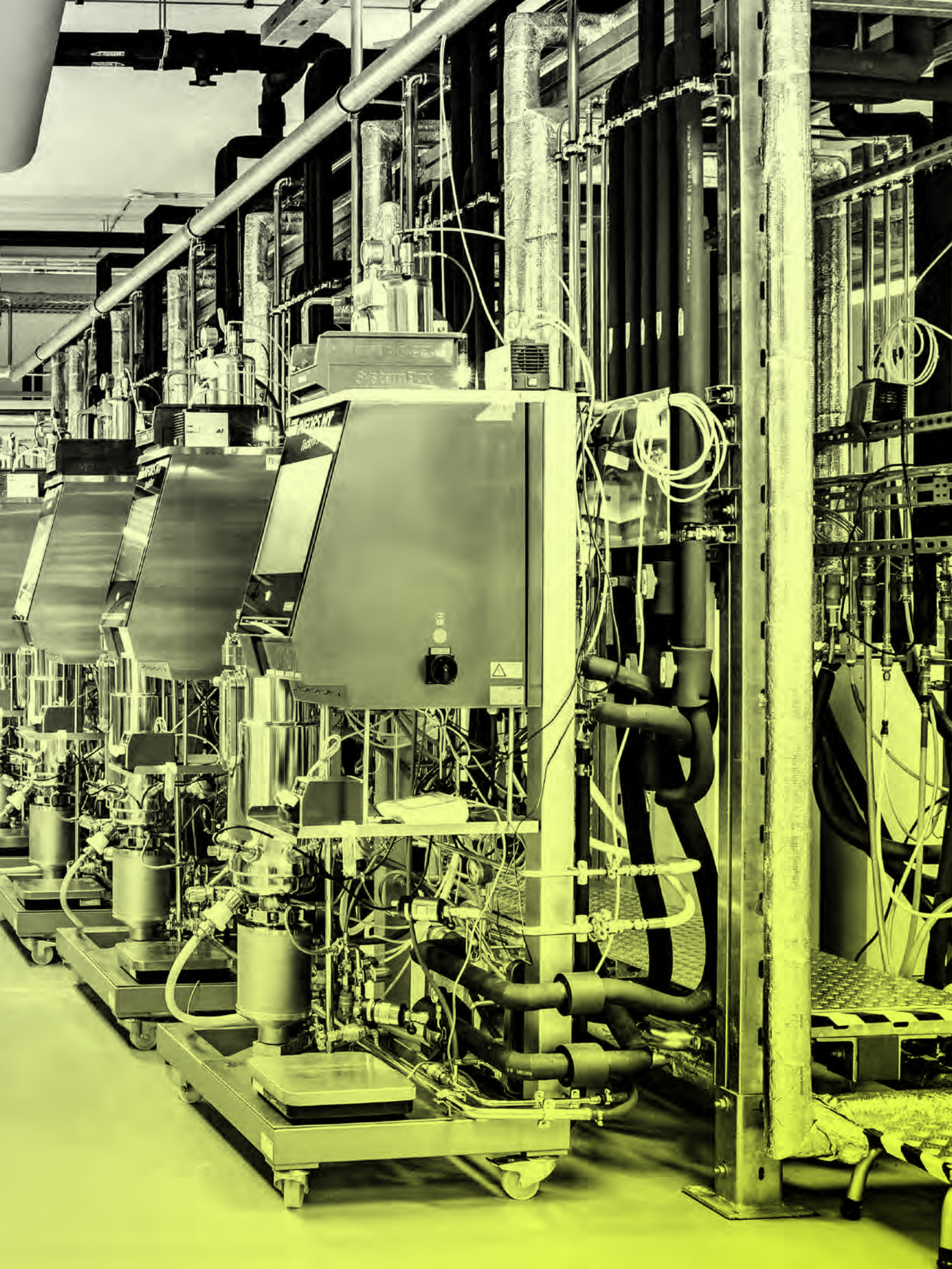


GERMANY





Hard at work
These bioreactors at the CBC contain billions of specifically tailored microorganisms that churn out desired compounds.



Zavrel is one of many at the CBC initially hired to work on a novel process for converting agricultural waste into biofuel. »That project was what essentially sparked the whole biotech group for Clariant and established our impressive expertise in second-generation biofuels based on non-food biomass,« says Markus Rarbach, who was an integral member of the research team at the time and today heads up Clariant's Business Line Biofuels & Derivatives. »It is an exemplary success story that came out of the CBC.« The final process has since been brought to market as sunliquid® technology. Clariant broke ground on its first-of-its-kind full-scale commercial ethanol plant in Romania in 2018, and the company is licensing the technology to others. Nonetheless, Lina Tubes and others at the CBC are still working on future process improvements to increase the efficiency of the technology for feedstocks which are abundant in different parts of the world, including wheat straw in Europe, rice straw in Asia, sugar cane bagasse in South America, and corn stover in the USA.

A key component of the sunliquid® process, as in most industrial biotech, are enzymes. They convert indigestible parts of wheat, rice, and other biomass into a form of sugar that microorganisms can only then convert into biofuel. Such enzymes, or »biological catalysts,« are highly complex protein molecules that can induce and speed up chemical reactions. They serve a wide range of functions in any living organism. But they can also do nifty tricks for a host of industries by promoting reactions that are otherwise very difficult to achieve.

For millennia, enzymes have played a role in making bread, cheese, and beer. More recently, they have found applications in anything from personal care and pharmaceuticals to industrial processes and household products. Enzymes help modern laundry detergents dissolve stains at lower temperatures. Others can stop what's called »pilling.« »We program these enzymes to essentially nibble away those tiny ugly knots that form on

Asking an expert

»At the very heart of sustainable chemistry«



Ling Hua
Head of Group Biotechnology, on the impact of »directed evolution« and the overall benefits of industrial biotech

Ling, you've worked with Nobel Prize laureate Frances Arnold, haven't you?
Yes, about 20 years ago. In fact, she was influential in getting me my first job. I was looking for a post-doc position in her lab and she forwarded my CV to a friend of hers, who was building a biotech start-up. I was one of their first hires and later collaborated with Frances and her lab to work on enzymes for the bioconversion of active pharmaceutical ingredients.

How has »directed evolution« impacted your own work?
It is a powerful tool for any of us playing in the field of industrial biotechnology. Without directed evolution, we only can look for whatever enzymes or microorganisms are out there in nature, most of which obviously have not evolved to fit industrial applications. Frances' contribution in directed evolution changed that and now allows us to evolve enzymes specifically to fit any industrial application and to enable chemical conversions through biocatalysis that were impossible before.

How can this concept and industrial biotechnology in general benefit mankind?
By creating diversity in the lab and then selecting for desired properties via High-Throughput Screening we are using nature's algorithm to find powerful enzymes quickly and reliably. Those can open up opportunities for industrial enzymes in various applications. Anything from efficient detergents that help washing machines and dishwashers save energy and water to the use of biocatalysis for more sustainable transformation pathways in chemical and pharmaceutical productions.

Speaking of the environment, what can the Clariant Biotech Center (CBC) contribute to a sustainable future?
Research at CBC has brought us the sunliquid® technology to breakdown biomass into sugars and then ferment them into ethanol with a high yield. This alone contributes tremendously to the circular economy and reduces CO_2 footprints. In addition, microorganisms allow us to produce even the most complex compounds very energy-efficiently and using natural renewable resources. At the CBC, we also focus on the development of biobased and fully biodegradable materials. So I see our work at the very heart of Clariant's efforts towards sustainable chemistry. And keep in mind, industrial biotech as a discipline is still fairly young. So is the CBC. We're only getting started!



»We run thousands of samples per week to select them for specific properties.«

Katja Kirsch
Scientist, Group Biotechnology

synthetic and woolen fabrics,« says Timothy O'Connell, who heads Research and Application at Clariant Biotechnology. O'Connell joined Clariant in 2016 from one of the world's largest household care companies. »I've spent much of my professional life battling food stains,« is how he puts it. While the right enzymes can make life a lot easier, »programming« them is extremely difficult.

Copying nature's design process

That's where a method called »directed evolution« comes in. It was pioneered in the early 1990s by an American chemical engineer named Frances H. Arnold at the California Institute of Technology (Caltech). In 2018, it won her the Nobel Prize in Chemistry. Arnold herself has called it a way of »copying nature's design process.« The idea is to take any microorganism, such as a bacterium or fungus, that has the potential to produce a certain type of enzyme. The next step is to then spawn thousands upon thousands of new varieties of that organism by inducing random mutations. This can today be done easily and reliably with certain chemicals, radiation, or even just with UV light. After that, it's a matter of selecting which, if any, of those new organisms produce an enzyme that fits the task at hand.

Clariant uses proprietary technology to carry out protein engineering and directed evolution. That involves first creating diversity both at the protein and the organism level and then selecting for the specific properties that fit the desired industrial application. However, testing thousands upon thousands of individual organisms and proteins is both hard and tedious. Luckily, Katja Kirsch has two untiring robotic arms at her disposal, bulky metal contraptions that rotate and jerk at all kinds of unnatural angles. Kirsch is a scientist at the CBC and her robotic arms are part of a High-Throughput Screening (HTS) system. Clariant runs two of these at the CBC. The robots slide up and down a lab bench taking every variant sample through various tests to determine which one fits the intended process best. It is Kirsch's job to design the specific sequences of steps and tests. To speed things up, each sample occupies a position in a microplate, a plastic rectangle with up to 1536 wells or tiny test tubes, arranged like boxes in a crossword puzzle. »For size reference: An individual well holds only a fraction of a raindrop,« says Kirsch.

Once the robots have taken the microplates through the tests, they store them in a fridge. »With this setup, we are able to process many thousands of samples per week,« says Kirsch, as she points to a display next to the fridge.

It shows results for each and every well on any of the microplates in the fridge. Those results can be the concentration of a specific enzyme or any of its useful properties needed in an industrial process. They can even be the result of thousands of tiny washing cycles. For that, Kirsch will have put a minuscule piece of purposely stained cloth into each of the wells before she lets a scanner determine how effective each enzyme was in removing the stain. »Then it's just a matter of defining which variants give the results that we find promising, and the robots will select the corresponding samples from all the plates in the fridge for further tests or as starting point for a new cycle of evolution,« explains Kirsch. That's the beauty of directed evolution: The CBC uses nature's toolbox to come up with new solutions to a problem and then has robots select the best fit for an industrial process, which is then developed for production.

One of the latest innovations using directed evolution to come out of Clariant's Biotechnology is a brand new biopolymer. »The term gets thrown around a lot,« says Zavrel. »For us, a biopolymer is both derived from a natural, renewable resource and is also fully biodegradable.« He and his team were able to develop such a material with the help of a microorganism. »It produces the polymer as a defense mechanism using natural sugars,« says Zavrel. What's even more interesting, the biopolymer does not pollute the ocean with microplastics because natural microorganisms can completely break down and digest any leaked product just like a regular sugar. »This could be a great sustainable alternative for traditional polymers in many different industries,« Zavrel says.

A new solution to an old problem

Another recent innovation connects the CBC with one of mankind's oldest uses for fermentation: brewing beer. While working on sunliquid® in its earliest stages, Zavrel developed an entirely new process to extract the alcohol from a fermentation. He stumbled upon the solution by accident when he stored a sample of the brew together with one of Clariant's own products. What he found was that the material soaked up alcohol like a sponge. In a small room next to the main laboratory, Zavrel assembled an apparatus, which is about the size of a small car, and tried it with a case of lager beer that he bought from the shop across the street. Without much tinkering, he was able to reduce the alcohol level by 90 %. That left him with a beer that qualifies as »alcohol-free« but still has all its complex flavor compounds intact. »This technology fits perfectly the unmet needs in the non-alcoholic beer or wine market,« says Zavrel. He is not alone in seeing the potential. According to market research performed by external partners as well as internal market intelligence, sales of non-alcoholic and low-alcohol drinks are growing steadily in most industrial countries, in line with other health-conscious trends. Even in beer-thirsty Germany, non-alcoholic brews are the only kind that have seen substantial growth in recent years. And then there are new markets in the Middle East and parts of Asia, where people abstain from alcohol for religious reasons.

As with any of its innovations, Clariant's Biotechnology team has intensively evaluated the market potential early on. But unlike most new technologies coming out of the CBC, dealcoholizing beer is a completely new business for Clariant. »That's why we've put resources for commercialization in place ourselves and want to act as an incubator in this development phase,« says Andreas Reindl, who heads Business Development at Clariant Biotechnology. »The key is to now bring this true innovation to market quickly, ideally starting with strong mid-sized brewing companies.« This means that Clariant Biotechnology is breaking new ground for the company. Then again, being open to new opportunities seems essential to Clariant's Biotechnology. Or as Louis Pasteur, one of the fathers of microbiology, once famously said: »Chance favors only the prepared mind.«

Hold the booze

How Clariant's new way of dealcoholization works

Clariant's unique process for dealcoholization uses a method called gas stripping. A pump streams the mixture of carbon dioxide, water vapor, alcohol, and esters accumulating atop the brew through a bed of zeolite. This specific type of microporous aluminosilicate is produced by Clariant's Business Unit Catalysts. Its microscopic pores capture only the alcohol. That is because water molecules are too small and the complex esters responsible for distinct beer aroma are too large to get stuck. Both can simply be pumped back into the beer. Once the zeolite is saturated with pure alcohol, it's then easily emptied out with a vacuum pump, and the cycle continues.



001

001 Michael Zavrel
Head of Development & Biomanufacturing, Group Biotechnology

002 Harnessing diversity
With the help of state-of-the-art automation, the CBC screens microorganisms by the thousands.



002

Overview on Corporate Governance

Clariant is committed to international compliance standards, ensuring checks and balances between the Board and Management, as well as a sustainable approach to value creation.

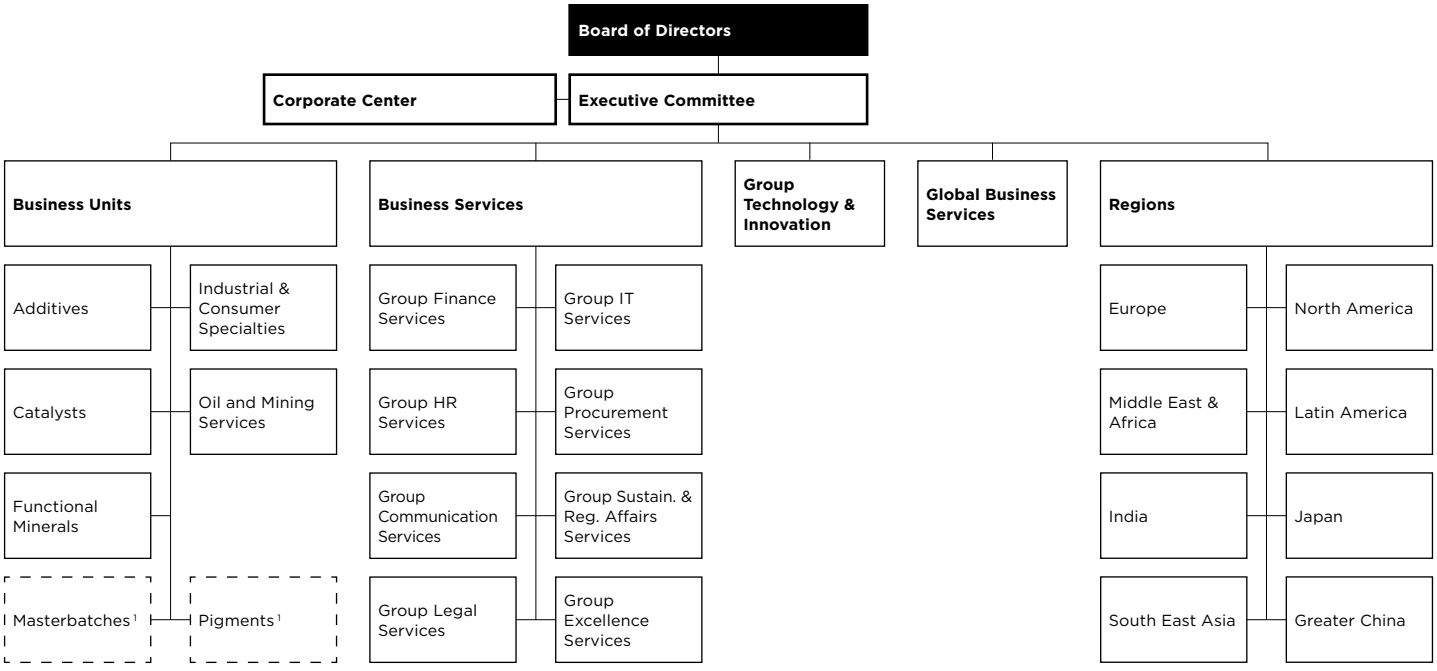
1. Principles of Corporate Governance

The Group commits to Swiss and international standards of corporate governance by following the respective statutory provisions and the rules issued by the SIX Swiss Exchange and by implementing the principles of the Swiss Code of Best Practices for Corporate Governance.

2. Organizational overview

Clariant is headquartered in Muttenz, Switzerland. The Group's continuing operations comprise five Business Units (Additives; Catalysts; Functional Minerals; Industrial & Consumer Specialties; Oil and Mining Services), which are reported in the three Business Areas Care Chemicals, Catalysis, and Natural Resources. The Business Units Masterbatches and Pigments are held for sale and report under discontinued operations.

001 **CLARIANT ORGANIZATIONAL STRUCTURE AS OF 31 DECEMBER 2019**



[1] In 2019, Clariant decided to dispose the Business Units Masterbatches and Pigments. The two Business Units concerned have been reclassified to discontinued operations.

The organizational structure → **FIGURE 001** is further comprised of eight Business Services, Group Technology & Innovation (GTI), Global Business Services, the Regions, and the Corporate Center, which centralizes key corporate functions. The Executive Committee is responsible for the management of the Group.

Corporate Governance Report

This short overview summarizes some aspects of corporate governance that are particularly relevant for integrated value creation at Clariant. For more detailed information, see the separate Corporate Governance Report → reports.clariant.com/2019/corporategovernance

3. The Board of Directors

The members of the Board of Directors of Clariant Ltd, the Chairman of the Board of Directors as well as the members of the Compensation Committee, are elected individually for a term of one year by the Annual General Meeting.

At the end of 2019, the **Board of Directors** of Clariant Ltd comprised of 12 members: Hariolf Kottmann (Chairman and, since 24 July 2019, Executive Chairman), Dr. Khaled Homza A. Nahas (Vice-Chairman), Abdullah Mohammed Alissa, Günter von Au, Calum MacLean, Geoffery Merszei, Eveline Saupper (independent Lead Director since 24 July 2019), Carlo G. Soave, Peter Steiner, Claudia Suessmuth Dyckerhoff, Susanne Wamsler, and Konstantin Winterstein. All members of the Board of Directors, except for Hariolf Kottmann, who held the position of CEO until 15 October 2018 and who has been serving as Executive Chairman since 24 July 2019, are considered to be independent in accordance with best-practice standards.

Of the nine male and three female members of the Board of Directors, five have German citizenship, two Saudi Arabian, two British, one Swiss, one Canadian and Swiss, and one US citizenship. Concerning education, Board members hold PhDs or other degrees in the following fields: four in economics, political economy, languages and economics, or law; three in chemistry; three in industrial engineering, production engineering, engineering management, mining and engineering, or engineering and economic systems; and two in business administration. With regard to age, one member of the Board is 50 years or younger, one is 51 – 55 years, four are 56 – 60 years, three are 61 – 65 years, and three are 65 – 70 years of age. Concerning the first year of election to the Board, two Board members were first elected in 2008, two in 2011, one in 2015, three in 2016, and four in 2018.

4. The Board of Directors' responsibilities and committees

The Board of Directors is the ultimate decision-making authority for Clariant Ltd in all matters except those decisions reserved by law or the Articles of Association for the shareholders. The Board also provides the strategic direction for the Group and reviews and further develops the company's strategy annually during a two-day Board of Directors' meeting.

Further duties of the Board include ensuring a management and corporate culture that is appropriate for the company's objectives, as well as an internal control system and adequate risk and compliance management, particularly regarding financial, corporate governance and citizenship, personnel, and environmental protection matters.

Members of the Board of Directors constitute the following committees: the Nomination Committee, whose duties include drawing up principles for the selection of candidates for election and reelection to the Board of Directors, the CEO and the other members of the Executive Committee, and preparing the corresponding recommendations; the Compensation Committee, which reviews and proposes to the Board of Directors the compensation and benefits policies and programs, evaluates the performance criteria relevant to compensation, and determines individual executive compensation and benefits of the members of the Board of Directors and the Executive Committee, subject to the approvals of the total compensations by the Annual General Meeting; and the Audit Committee, whose duties include

»The Board of Directors has reviewed the 2019 Integrated Report and proposes its approval to the Annual General Meeting.«

Hariolf Kottmann
Executive Chairman



Hariolf Kottmann
Executive Chairman



Hans Bohnen
Chief Operating Officer (COO)



Bernd Hoegemann
Member of the Executive Committee



Patrick Jany
Chief Financial Officer (CFO)

reviewing the activities of the external auditors, their collaboration with the internal auditors, and their organizational adequacy. Furthermore, the Audit Committee reviews the company's internal control and risk management systems and reviews compliance with the law and internal regulations, particularly regarding the Code of Conduct.

5. Management of the Group

The Board of Directors has delegated the executive management of the Clariant Group to the CEO and the other members of the Executive Committee. The members of the Executive Committee are appointed by the Board of Directors on the recommendation of the Nomination Committee.

At the end of 2019, in addition to Hariolf Kottmann, who acts as Executive Chairman until the position of Chief Executive Officer is newly filled, the Executive Committee consisted of Chief Financial Officer Patrick Jany, Chief Operating Officer Hans Bohnen, and Bernd Hoegemann.

Not counting Hariolf Kottmann, whose background is already included in the summary of the composition of the Board of Directors, the other three male members of the Executive Committee have German citizenship. Concerning education, Executive Committee members hold PhDs or other degrees in the following fields: one in chemistry and business administration; one in economics, psychology, and business administration; and one in economics. With regard to age, one of the members is 50 years or younger, and two are 51 – 55 years. The first year of membership in the Executive Committee was 2006 for one member, 2018 for one member, and 2019 for one member.

The Executive Committee is primarily responsible for the implementation and monitoring of the Group strategy, the financial and operational management of the Group, and the efficiency of the Group's structure and organization.

6. Enterprise risk management

In the framework of Enterprise Risk Management Policy, risk assessments are prepared by Business Units, Service Units, Corporate Functions, and Regions to assess threats that will impact the achievement of Clariant's objectives. These objectives are a result of the overall strategy of the Group as set by the Board of Directors and implemented by the Executive Committee. The Executive Committee is responsible for monitoring the risk assessments for relevance and consistency.

The Executive Committee has formed an Ethics and Risk Management subcommittee, which maintains an up-to-date understanding of areas where Clariant is, or may be, exposed to risk issues, and seeks to ensure that management is effectively addressing those issues. The Ethics and Risk Management Committee meets on a quarterly basis.

A summary risk assessment is submitted annually to the Executive Committee, Audit Committee, and Board of Directors for review. In the event of new or changed risks, reporting is accelerated.

To support functional responsibility, certain functions have access to risk assessments to assist them in their roles. Examples of such functions are Environmental Safety & Health Affairs (ESHA), to identify key sites for their property risk survey program, or Group Procurement, to ensure reliable and compliant supply of raw materials.

7. Significant shareholdings and shareholders' participation rights

At 31 December 2019, the following shareholders held 3 % or more of voting rights in Clariant Ltd: SABIC International Holdings B.V., 25.77 %[1]; APG Asset Management N.V., 5.01 %; Blue Beteiligungsgesellschaft mbH, 3.49 %; Citadel Multi-Strategy Equities Master Fund Ltd, 3.285 %; and Millennium Partners LP, 3.04 %.

Subject to certain limitations on voting by nominees, each registered share entitles the holder to one vote at the Annual General Meeting. Shareholders have the right to receive dividends and such other rights as are granted by the Swiss Code of Obligations. However, only shareholders entered in the Clariant share register may exercise their voting rights.

Shareholders representing shares with a total par value of CHF 1 million have the right to submit written requests that an item be included on the agenda at least 45 days prior to the 26th Annual General Meeting on 7 April 2021.

[1] SABIC acquired 24.99 % of the shares of Clariant Ltd on 17 September 2018. The difference between this figure and the above-mentioned 25.77 % corresponds to the amount of treasury shares held by Clariant Ltd, which have to be aggregated to the shares held by SABIC solely for regulatory disclosure purposes due to the Governance Agreement entered into by SABIC and Clariant on 17 September 2018.

Leadership in Times of Change

Strong leadership and a commitment to continuous development drive value creation at Clariant. The company believes that creating a collaborative working environment based on trust and appreciation is vital, particularly in times of change. This inspires and motivates teams to continuously learn and cultivates a high-performance culture.

1. Leading people in transformative times

People at Clariant are working in a fast-paced environment. In the midst of a rapidly changing market and advancing digitalization in the industry, the company is adjusting its portfolio and redirecting its strategy. These developments require flexibility and willingness from every employee to continuously develop their skills. For leaders, empathy, change management competencies, and end-to-end thinking are now a prerequisite to motivate and inspire people in times of change and uncertainty.

These developments also impact how people work together and require adjustments in leadership. For example, as employee location loses importance, remote leadership skills become more crucial; as digitalization increases the availability of information, organizations must promote collaboration and skill-building. In addition, Clariant's focus on innovation and the ambition to grow the continuing operations requires advanced competencies and an upgrade of commercial skills. Clariant's leaders need to identify each employee's potential to contribute to these goals and support them to turn these capabilities into strong performance.

2. Implementing the People Excellence strategy at the regional level

Clariant rolled out its People Excellence strategy in 2017 to promote an organizational culture of learning and development and ensure high performance in times of fundamental change. Since 2018, Clariant has cascaded this strategy down to the Business Units and the regional level. This included identifying key opportunities and challenges in people-related processes, such as recruiting or skills development, as well as supporting key leaders in the Business Units to develop organizational change and customized support measures, from recruiting to building competencies.

At Clariant, strong leadership and sophisticated human resources processes go hand in hand. Different human resource functions thus play a key role in implementing the identified measures, such as a new talent management initiative, an innovative recruitment campaign, or improvements to the performance management system.

3. Fostering continuous learning and promoting internal talent

For Clariant, continuous learning and development is crucial to maintain a high level of competitiveness and advance employees on their career path. The company helps employees cultivate interpersonal as well as technical skills at all levels and focuses on shaping new leaders to ensure continuity and build organizational knowledge. To do so, Clariant relies on a well-developed talent management program, which includes structured talent identification and review processes, diverse formal and informal talent development measures, and career management.

To make it easier for high-potential candidates to evaluate their future career opportunities, Clariant launched the Capability Development Program in 2018. It provides leaders with clarity on competence requirements for various job levels and offers an assessment process to identify development opportunities based on transparent criteria. In 2019, leaders of three additional functional areas were incorporated into the program: finance (pilot project in Asia), operations, and human resources. This contributed to a high success rate regarding internal talent development. In 2019, Clariant promoted internal candidates into 87 % of senior management positions and filled 90 % of group management positions from the internal population. → **PAGE 155**

4. Advancing efforts in employer branding

Positioning Clariant as a preferred employer and retaining employees are business imperatives, given the global hunt for talent and the rapidly evolving skill requirements. Clariant thus aims to provide challenging positions across functions, foster individual learning and development, and recognize the efforts of its employees through appreciation programs. → **PAGE 157**

For Clariant, being a preferred employer means offering a fair and healthy work environment and promoting team collaboration. Clariant also encourages and values diversity of thinking and acting. By hiring and promoting people of different genders, ages, cultural backgrounds, and career paths into key positions, Clariant lays the foundation for long-term success.

To secure a strong position in business-critical segments of the talent market, which include digital talents and talents with skills in social entrepreneurship, Clariant expanded its partner network in 2019 to include the Impact Hub in Basel and renowned universities. Clariant also revised its job ads and careers portal to be brand-consistent, adding a new company description and links to additional sources about the company. These measures helped increase the share of internal applications by 30 %. In addition, Clariant recorded a very high talent retention rate of 93 % in 2019.

»In times of change, empathy and change management skills are prerequisites of strong leadership.«

Klementina Pejic
Head of Group Human Resources


CLARIANT
JOIN US ON
OUR JOURNEY
SHAPE
THE FUTURE
Interested? We are always available to help you out.
GET IN TOUCH

Find Skills for the Digital Age

Talent Attraction and Development

»Techies love solving problems«

Kimberley McCall talks about her work as Clariant's first Digital & IT Talent Acquisition Specialist and why new job profiles call for new ways of recruiting.

Contribution to SDGs

This story is an example of Clariant's contribution to SDG 8 and SDG 9.

Read more on → PAGE 24



Kimberley, your job is recruiting tech talent. What are the profiles that Clariant looks for?

The chemical industry as a whole has championed automation and the use of digital equipment since very early on. But when it comes to new digital business models and leveraging big data or even artificial intelligence, we still have a way to go. And those areas are where we at Clariant are now looking for new kinds of tech talent. Data scientists, full-stack software developers, and user experience (UX) designers are just some of the job profiles a typical chemical company would not have had that much use for ten or even five years ago. Not to mention the need for even more complex »hybrid« profiles, which require a combination of tech and specific business acumen.

Why do these profiles need a specific recruiter like yourself?

Make no mistake, when I joined a little less than two years ago, my colleagues in Talent Acquisition were already hiring these specialists. But with so many new and highly specific profiles, there was a need for someone to really dive deep and learn exactly what we need and where to find it.

How did you learn that?

I did a lot of reading and googling at first. But more importantly, I went out to conferences, expos, and other events to meet people and talk to them about what they do and why.

Is the »why« important?

Absolutely. What motivates techies was one of the key things for me to understand. I learned that they generally have a few things in common: they love solving problems, the more challenging and meaningful, the better. They share a need to have a positive impact. They want the ability to make decisions and implement changes effectively and efficiently. These key insights help me highlight why Clariant and its digital start-ups are such interesting places to work.

You joined Clariant less than two years ago yourself. What drew you to the company?

I have spent most of my professional life in the chemical industry and have always appreciated the opportunities



»It takes time to build a network and create a name for yourself.«

Kimberley McCall
Digital & IT Talent Acquisition Specialist

and positive challenges I was given, even though I don't have a science background. I moved into recruiting a couple of years before joining Clariant. Some of that work was as a consultant in London for a range of industries. There, I gathered invaluable experience working in a fast-paced, competitive agency environment, but realized that I would, at some point, want to continue my work internally. It would allow me to deep dive into a specific company to make sense of its intricacies and stay connected and closely follow the progress of those I had helped hire. So when Clariant offered me the opportunity to recruit for them and to actually help establish a new approach to their tech hiring process, that really appealed to me.

What's your role today?
I'm responsible for digital & IT recruitment for Clariant and all vacancies related to our digital start-ups, most notably Chemberry™ and Navigance™. I play a consultative role for Business Units and departments that are looking to hire people with tech-related skill sets or to staff upcoming digital ventures.

Where do you find a data scientist or a software developer?
You mostly find them where these skills are taught, developed, and engaged, so in university towns and technology hotspots. Then, it's a question of identifying and engaging the most suitable candidates for

Corporate learning

What to teach and how

Clariant's corporate learning strategy is reshaping how the company trains and develops professionals.



Kirsten Neumann
Head of Center of Excellence
»Learning & Academy«

Technology is transforming the workplace. With digitalization seeping into more and more jobs, there is a growing need for what some are calling hybrid skill sets. From marketing managers who work with chatbots to chemists who delve into big data – Clariant increasingly needs people who can straddle those fading lines between different domains. »Some of these very specific skill combinations are almost impossible to find on the market. That's why systematically up-skilling the experts you have makes a lot of business sense,« says Kirsten Neumann, Head of Clariant's Center of Excellence »Learning & Academy.« That is one reason why Clariant recently reshaped its corporate learning strategy. One of its pillars is to provide best-in-class learning formats.

Neumann and her team, who are all consultants for personal development and instructional designers, use their knowledge to tailor every course to fit Clariant's needs. That starts with first going out to all businesses and actually asking what a department or team wants to achieve in the short and medium term. »A nice side effect of involving supervisors this way is that it makes them more likely to later encourage our participants to actually apply what they have learned,« says Neumann.

Neumann also found that every course benefits from incorporating interactive or even playful exercises, preferably based on a practical case study. Another rule is to keep those courses short and focused on the defined key competencies. That's in keeping with Clariant's special emphasis on what's called social learning: »We set up learning communities where the participants meet in moderated classes and share their experiences – both good and bad – with applying new skills in their day-to-day work,« Neumann explains. »That helps a lot more than any formal training ever would.« Additional virtual briefings both before and after each training session provide for a better preparation, help to transfer knowledge, and encourage the group to connect with their new network across regions.

Unsurprisingly, Clariant aims to increase the impact of each and every training. To monitor this, Neumann and her team survey participants and their supervisors after a few months. One thing they ask is how much of the curriculum participants were actually able to apply. »And we're already getting really good scores here, which tells us we're on the right track,« says Neumann.

Another shift involves the Clariant Academy, the company's global framework for courses mainly on leadership, personal development, and change. »While most of our courses are still face-to-face, we are moving into online learning and also test what recognized business schools can offer here,« says Neumann. »And we are incorporating more offerings on, for example, virtual leadership and online collaboration as well as self-directed learning elements, such as peer coaching groups. All of these can be conducted remotely.«

Additionally, Clariant is running a pilot for its IT department on LinkedIn Learning. The popular online platform features a vast library of technical and business training courses, mostly in the form of online instructional videos. »If you look at IT, it's not just about new technology, but also about business acumen and new ways of collaborating – agile work, Scrum, working in sprints, and so on,« Neumann explains.

For Clariant as a company, using new ways of learning has become crucial to achieving its business goals. And for everyone individually, it helps to grow further, to stay motivated, and to ensure lifelong employability. While digitalization may put pressure on people and businesses to change, it also offers new ways to do so.

our vacancies. It takes time to build a network and create a name for yourself, which is what I've been doing for almost two years now by attending after-work events and meet-ups. And it will remain a crucial element for continued success. Referrals and suggestions from current Clariant employees are also a highly valuable source for suitable applicants.

With whom does Clariant compete for this kind of tech talent?
The skills these specialists have and the tools they employ are applicable in a wide range of industries. So we're naturally competing with a lot more companies and organizations than we would, say, for a chemist.

And everybody wants to work for well-known tech giants…
Not necessarily! People are generally motivated in different ways and will pursue the employer that they feel will help them fulfill their individual needs and aspirations. I would, however, dare to say that somebody who really dreams of working for the known tech giants would likely not thrive in our work environment.

How so?
Working for one of those data giants has its allure and its perks. But these companies employ hundreds, if not thousands, of tech specialists, and for some, this may seem as though they are a small fish in a big pond. When you join a company that is still building up its data and tech acumen, I'd argue that you get a lot more in terms of exposure, responsibility, and creative freedom.

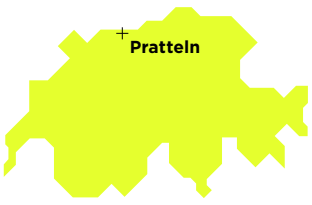
Are you yourself using tech to recruit people?
Yes. We work closely with Clariant's Employer Branding to make use of digital channels a lot more professionally. We're also interviewing people via video chat. That helps a lot. Candidates may be based anywhere in the world and they simply expect that sort of flexibility from an employer. It is also a great way of getting candidates in touch with our tech experts on the inside early on. That's something that works extremely well. It's important for digital talent to see that their employer understands what they do, speaks their language, and offers interesting projects.

How do you »sell« Clariant to a prospective hire?
I don't. Or rather, I don't try to portray Clariant as anything different than what it is. I don't believe that would be a sustainable way of engaging employees. I let the facts speak for themselves. We offer interesting and diverse greenfield projects and provide a space to develop ideas and create a significant impact – in addition to other great perks. But although we have a good value proposition as an employer and strive for continuous improvement, there are areas where we could do even better.

Where do you see a need for Clariant to improve?
This is a rapidly changing world, and we need to continue to adapt to maintain our strong position in the market. Corporate culture, flexible work models, incentive options, innovation, and the utilization of the newest technologies as well as a positive social impact are key to both attracting and retaining our tech workforce. We are working on these things, but there's still a way to go.

Do you notice a difference between recruiting for Clariant's core business and for its digital start-ups?
Yes, recruiting for a start-up is different than recruiting for a big corporation. The good thing about us is that we offer the best of both worlds and can leverage our synergies. The different sides of the business have very different pros and cons, so they attract applicants with varied needs and motivations. There are those that thrive in a less developed working environment with all its uncertainties, and then there are those that value the more established structures of a big corporation. At the end of the day, it all comes down to establishing the best possible fit at the right point in time.

SWITZERLAND



Overview on the Compensation Policy

Clariant's compensation policy supports its ambition to be an employer of choice and strives to attract, motivate, and retain committed employees.

1. Compensation concept

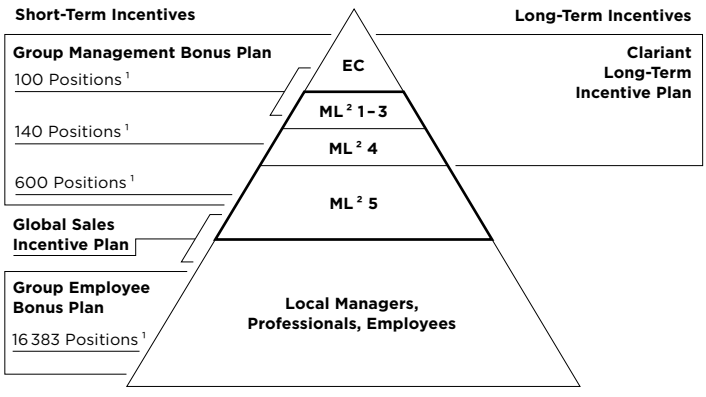
To attract, motivate, and retain qualified and committed employees throughout the organization, Clariant's remuneration policy is based on the following main principles: remuneration components are aligned with and designed to support the Clariant business strategy; regular benchmarking studies are conducted to ensure compensation levels are competitive and in line with market practices; compensation practices always comply with local regulations, such as laws and collective union agreements; compensation policy and practices ensure consistency and a fair treatment of employees working for Clariant; remuneration components incentivize business and individual performance through performance-based pay; and remuneration components are made transparent to the individual and the organization.

Clariant considers six main remuneration principles

- Alignment with business strategy
- Competitiveness
- Compliance
- Internal fairness
- Performance-based pay
- Transparency

The structure of total remuneration is highly performance and success-oriented to ensure that shareholder and management interests are aligned. While Long-Term and Short-Term Incentives for management are based on Group Performance Indicators only, individual performance – measured through a consistent, global Performance Management system – is a determining factor in career development and the annual salary review process. Within the Global Performance Management System, each manager's or employee's performance is assessed and discussed on a yearly basis. This process includes regular 360-degree feedback for all management levels (ML).

001 **CLARIANT INCENTIVE SCHEME LANDSCAPE**



1 Number of positions as of 31 December 2019 2 ML: Management Level

2. Linking compensation to sustainable value creation

Short-term incentive plans (cash bonus) include the Group Management Bonus Plan, the Group Employee Bonus Plan, and the Global Sales Incentive Plan. Long-term incentive plans offer equity-based compensation for approximately 240 senior managers worldwide (Executive Committee and Management Level 1 – 4). → FIGURE 001

Compensation Report

This short overview summarizes some aspects of compensation that are particularly relevant for integrated value creation at Clariant. For more detailed information, see the separate Compensation Report → reports.clariant.com/2019/compensation

The Group Management Bonus Plan (GMBP) is anchored in the overall Performance Cycle at Clariant, which ensures a challenging business-specific target agreement for each Business Unit and Service Unit.

The individual GMBP amount of bonus payments generated in a year is determined by the results achieved by the Clariant Group measured against defined objectives. The achievement is calculated based on three elements: financial result of the Group; financial results of the Business Unit or Service Unit; and defined top priorities (Group Performance Indicators and strategic projects). In addition to financial indicators, the Group Performance Indicators include, for example, inventory targets, Clariant Excellence (CLNX) benefits, innovation sales, and occupational health and safety (lost time accident rate).

The Group Employee Bonus Plan (GEBP) is a globally aligned and standardized bonus plan for non-management levels for all legal entities around the world that apply (where legally compliant and possible) the global Group Achievement or a combination of Group Achievement and local Top Priorities as the basis for bonus payouts. For the sales force, the Global Sales Incentive Plan incentivizes premier sales performance and growth by focusing on the individual sales performance in the areas of sales, margin, and trade receivables.

After five years without any plan changes, the Compensation Committee decided to amend the Long-Term Incentive Plans for senior management starting in 2019 to better reflect Clariant's strategic targets, more closely align shareholder and management interests, and to ensure the remuneration package for senior management is competitive and reflects market best practices. Based on intensive benchmarking, this revised Long-Term Incentive is now based on the two key performance indicators relative shareholder return and economic profit reflecting both the external and internal view. The new Clariant Long-Term Incentive Plan (CLIP) was granted for the first time in April 2019. Participation in the CLIP is limited to the Executive Committee and senior managers of Management Level 1 – 4 (approximately 1.4 % of employees). The CLIP implementation eliminated the bonus deferral with matching shares and resulted in a shift from short-term incentive remuneration to long-term incentive remuneration.

The two previous Long-Term Incentive Plans, the Performance Share Unit (PSU) Plan and the Group Senior Management-Long-Term Incentive Plan (GSM-LTIP/Matching Share Plan), were discontinued and granted in 2018 for the last time.

3. Compensation of members of the Executive Committee

The Executive Committee participates in the same compensation elements as Clariant's senior managers, receiving a fixed annual base salary, an annual cash bonus, and Long-Term Incentives. The annual bonus is based on achieved results for the particular financial year according to the criteria mentioned above with respect to the Group Management Bonus Plan. For further information on the compensation of the Executive Committee and the Board of Directors, see the separate Compensation Report.

Core Processes for Value Creation

Idea to Market, Market to Customer, and Customer to Cash are key value-creation processes at the core of Clariant's business model. Underpinned by Clariant's Innovation Excellence, Commercial Excellence, and Operational Excellence initiatives, these processes turn customer needs into innovative and sustainable solutions that create value for all stakeholders.

The Idea-to-Market process involves scouting global trends, identifying business opportunities, exploring unmet customer needs, developing products, and commercializing and monitoring business performance. This process is essential for developing a well-filled product and service pipeline that delivers marketable innovations.

The Market-to-Customer process includes assessing market attractiveness, developing clear value propositions, and capturing the value created through the relationship-building and sales processes. To achieve a seamless customer experience, these steps are well connected and focused on customer needs.

The Customer-to-Cash process comprises balancing supply and demand, optimizing sourcing for spend effectiveness, monitoring production efficiency, and delivering finished goods to customers on-time and in-full in order to achieve safe, reliable, and efficient operations that support profitable growth.



IDEA TO MARKET

1. Idea to Market

Developing market-ready solutions that satisfy unmet customer needs requires a strong focus on innovation and technology. With its extensive Research & Development resources and a strategic innovation approach, Clariant is well-equipped to exploit opportunities presented by emerging trends and to stay ahead of the competition.

1.1. Supporting the transition to a sustainable economy

Sustainability and the circular economy continued to dominate the innovation agenda in 2019. The circular economy challenges the chemical sector to better understand end-to-end material flows and find new ways to reuse products at the end of their life cycle. Driven by stricter regulatory requirements and increased ecological sensitivity to issues such as the persistence of plastics in the environment, Clariant set out to create high-performing solutions with distinct environmental benefits and support the transition to a system with closed material loops. The latter is important for Business Units that are working on products that are recyclable or supporting their customers' recycling objectives, particularly the Business Units Additives, Masterbatches, and Pigments. The transition to a sustainable, circular economy is also supported by Business Unit Functional Minerals through its adsorbent products, for example, as well as by Business Units Industrial & Consumer Specialties (ICS) and Catalysts through their use of agricultural waste streams, as another example. → PAGE 72

»The new innovation unit combining Innovation Excellence and Clariant's Business Incubator will drive strategic innovation focusing on discovery, incubation and acceleration and help Clariant to create bigger, more strategic innovation projects and ensure a healthy innovation pipeline for the coming five years and beyond.«

Martin Vollmer
Chief Technology Officer and Head of Group Technology & Innovation

Clariant also focused on advancing the use of renewable and natural raw materials, particularly within its consumer goods and additives businesses. Given the strong demand for plant-based ingredients, Clariant unveiled its new »Envisioning Beauty« brand in 2019 and introduced an active ingredients platform that allows customers to discover the entire portfolio of natural ingredients in order to label their own products as »natural.« → PAGE 74 → PAGE 80 → PAGE 184

1.2. New innovation governance fosters strategic innovation management

In 2019, Clariant restructured its innovation organization by establishing an Innovation Committee, which immediately began to oversee all innovation activities at Clariant. This committee reviews and shapes Clariant's innovation strategy and ensures best practice application in innovation to maximize the value and delivery of the innovation pipeline.

At the operational level, Clariant Innovation Excellence (CIX) and New Business Development (NBD) were merged into the new unit »Innovation Excellence & Business Incubator,« belonging to Group Technology & Innovation (GTI). The reorganization expands Clariant's innovation capabilities and enables more strategic innovation management in order to commercialize innovative products faster and more reliably.

Going beyond the current Idea-to-Market approach, the new strategic innovation process consists of three phases: Discovery, Incubation, and Acceleration (DIA). The underlying idea of this approach is to increase the speed and impact of innovations by applying agile project management and lean start-up methodologies, helping the innovation teams to adopt entrepreneurial behaviors and mindsets. → PAGE 141 Innovation Excellence continues to provide state-of-the-art innovation and capacity-building tools, including Innovation Green Belt and Innovation Black Belt trainings, innovation workshops, and innovation portfolio management support.

1.3. Gaining innovation efficiency through digitalization

Increasing efficiency in the innovation process by exploiting the potential of digitalization is imperative to Clariant's competitiveness. Therefore, Clariant enhanced the capacities for High-Throughput Experimentation (HTE) by opening a new laboratory in Houston, Texas, USA. By applying automation and robotics, HTE enables Clariant to synthesize a vast variety of new molecules and test large numbers of formulations in parallel, discovering and delivering value-adding solutions to its customers at an unprecedented speed. → PAGE 142 Further, an Electronic Lab Notebook (ELN) was introduced to gain efficiency in the R&D system. The cloud-based tool works as a digital knowledge base that captures all relevant information along the innovation chain. → PAGE 143

1.4. Driving research with a strong innovation network

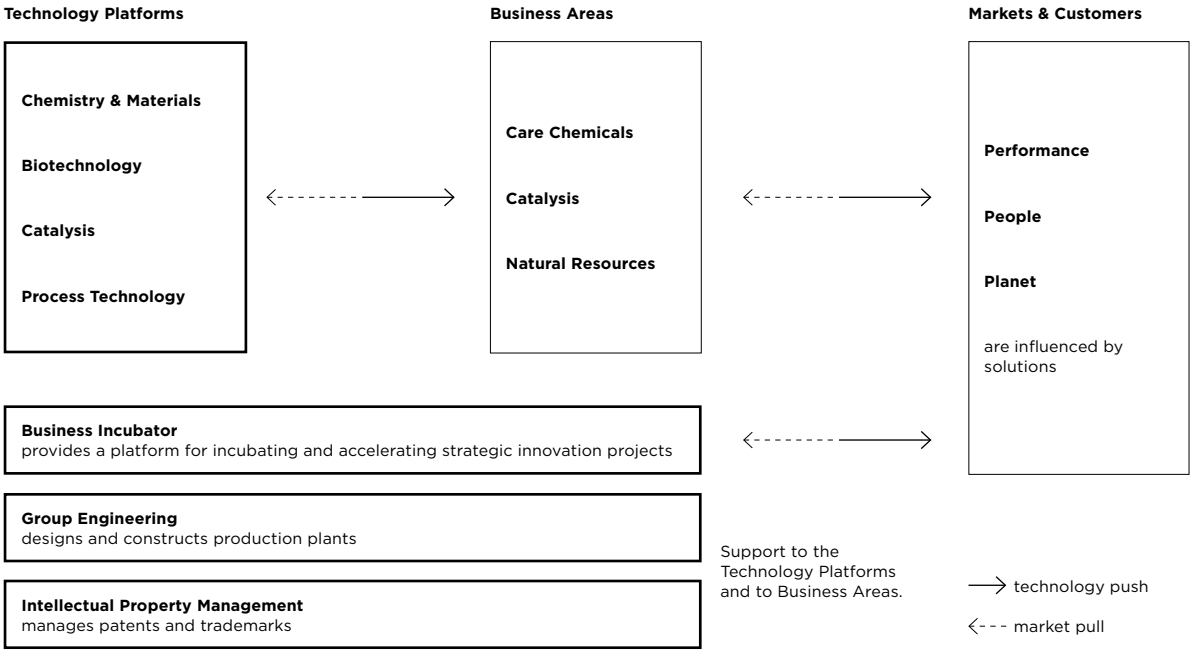
Clariant's Research & Development network consists of eight Research & Development Centers, more than 50 Technical Centers, and over 1000 employees. Under the umbrella of Group Technology & Innovation, research activities are structured along four Technology Platforms: Chemistry & Materials,

Biotechnology, Catalysis, and Process Technology. These work closely with the Business Units to ensure that technology push and market pull go hand in hand.

In 2019, the Technology Platform Chemistry & Materials focused, among other things, on computational chemistry as a new technology focus field – including a collaboration with the Barcelona Supercomputer Center (BSC). This opens a new dimension in chemical product design deploying in-silico chemistry. → **PAGE 144**

The Technology Platform Biotechnology uses cutting-edge technology, such as molecular biology, bioinformatics, and High-Throughput Screening, to further develop improved enzyme solutions for biomass degradation and to continuously support the Business Line Biofuels & Derivatives in further developing the sunliquid® technology. This includes research on a new yeast strain, which showed very high ethanol yields in the fermentation step of the sunliquid® process. By applying Lean Six Sigma tools as part of the LabX program → **PAGE 142**, it was possible to quickly and reliably set up many small-scale bioreactors, which are necessary to identify improved strains that deliver superior performance under industrial-scale conditions.

001 **CLARIANT INNOVATION CHAIN**



In 2019, R&D in the Technology Platform Catalysis has developed a number of new products, including new catalyst generations for the production of styrene, formaldehyde, and on-purpose propylene. These catalysts significantly enhance the efficiency of the customers' chemical processes and improve their environmental footprint. In addition, the R&D team has increased its capacities in China to optimally serve local customers and to further strengthen the presence of Business Unit Catalysts in this important market.

One of the technology focus fields for Technology Platform Process Technology is data science and artificial intelligence. In 2019, Clariant's Data Science Competence Center further supported Clariant's ambition to speed up product development by capitalizing on the large amounts of data that are collected every day by applying data mining and simulation methodologies. The team supports the Business Units in developing digital tools and applications to speed up product development, improve production processes, and intensify customer interaction. → PAGE 147

The four Technology Platforms are complemented by the new unit Innovation Excellence & Business Incubator, as well as Group Engineering and Group Intellectual Property Management. In 2019, Group Engineering, which is responsible for the management and execution of capital investment projects, focused on the integration of a database system that facilitates the adjustment of technical specifications of factory components across a large number of connected documents. This allows Clariant to create a digital twin of a plant and facilitates building similar plants in different regions. The tool is already partially deployed to support the licensing of the sunliquid® technology. In the near term, it will enable the quick transfer of technical modifications and learnings from one licensing project to another.

Group Intellectual Property (IP) Management, which secures the generated value through intellectual property protection and enforcement, actively engaged in all Digital4Clariant projects in 2019 to ensure that Clariant's digital knowledge is well protected in the future. Further, it drove the digitalization of Clariant's IP management by establishing the Digital Patent File, which improves efficiency and supports better collaboration between innovation teams across sites.

1.5. Fostering innovation through new internal collaboration formats and scientific partnerships

Clariant runs several initiatives to strengthen collaboration across functions and businesses, as well as with external partners. The Open Innovation initiative identifies collaboration partners ranging from large corporations to start-ups, universities, and other research institutions. In 2019, Clariant received more than 400 technology proposals through the initiative. Launched in 2015, the Open Innovation approach is now well embedded in most strategic innovation projects and has led to many promising partnerships across all businesses. → PAGE 144

The innovation potential within Clariant's workforce is leveraged by innovation formats such as the iEngine (Innovation Engine) and the iGarage (Innovation Garage). In 2019, Clariant started several iGarages to explore new business opportunities, including one in the field of hydrogenation technology. → PAGE 88 Six iEngines were conducted, and the identified potential technology solutions are now being pursued as part of various Idea-to-Market projects. → PAGE 141

Cutting-edge innovation formats iEngine and iGarage

iENGINE

The format consists of an elaborate sequence of virtual and face-to-face workshops to collect, prioritize, and refine potential high-quality technology solutions for unmet customer needs. The goal is to identify less obvious solutions. Since iEngines are conducted at a very early stage, and the development of viable technology options could take several years, the challenge is to sort out unfeasible options as early as possible.

iGARAGE

By using agile design thinking and lean start-up methodologies, a cross-functional team supported by external experts and innovation coaches convenes off-site over two to six months to develop business options through constant interaction with prospective customers and other stakeholders. The objective is to develop market-validated innovations through discovery and incubation, which will be further scaled in the market by a Business Unit.

MARKET TO CUSTOMER

2. Market to Customer

Clariant's success relies on its ability to understand customer needs along the entire value chain, develop solutions to address those needs, and capture the value created for profitable growth. To attain these goals, Clariant focuses on building strong customer relationships and strengthening its marketing and sales capabilities.

2.1. Addressing new market opportunities and customer demands

Customer demand for sustainable products and solutions continued to increase in 2019. To meet this demand, Clariant is continuously bringing forward new solutions that are more sustainable without compromising on performance or the company's commitment to fulfilling customer needs. Using 36 sustainability criteria to screen products across their entire life cycle as part of its Portfolio Value Program (PVP), Clariant awarded 27 new products the EcoTain® label in 2019 to recognize their outstanding sustainability profile. → PAGE 149

The continuing commoditization trend in the chemical markets has required Clariant to increasingly provide innovative products and services to meet customer-specific needs, while also maintaining cost-efficient operations in order to stay competitive. Clariant addresses these challenges by leveraging digitalization capabilities in its operations and services in order to improve production efficiency and customer service. Clariant plans to further incorporate customer needs into the definition of customer segments to refine value propositions and further focus marketing and sales activities.

Ongoing consolidation in the chemical sector intensified competition for Clariant in 2019. This trend was particularly apparent in Clariant's customer base, where upstream and downstream processes are increasingly integrated within the supply chain. By better linking business forecasts to production planning, Clariant helped its customers continue to build more integrated end-to-end supply chains.

2.2. Understanding the customer journey

Looking through a »customer lens« allows Clariant to understand changing product and service needs, as well as discern how the customer perceives the company. Clariant manifests its customer centricity through the Commercial Excellence initiative established in 2011, which facilitates dialog with customers, partners, and prospects to evaluate and improve commercial strategies, customer engagement, and sales and marketing operations. In 2019, Clariant continued to implement the Marketing Excellence Find & Win process to systematically understand each touchpoint along the customer journey. This allows the company to develop tailored products and solutions and maintain long-term relationships with customers. In 2019, 404 structured interviews with customers and 144 with industry experts were conducted to gain insights. Clariant also launched a strategic key account management program aimed at more effectively transforming market opportunities into sales.

Marketing Excellence Find & Win

Find & Win maps a market's value chain and customer needs by interviewing customers and industry experts.

To leverage customer feedback, Clariant conducts biennial customer satisfaction surveys, which provide insights into how Clariant's operational, commercial, and innovation performance is perceived. Customers of all Business Units in all regions were surveyed in 2018.

2.3. Sharpening value propositions with a holistic approach

The volatility of raw material prices over the last several years requires Clariant to closely monitor costs and supply chain competitiveness while also focusing on sales growth.

In 2019, Clariant initiated additional holistic pricing projects to maximize long-term value. By applying new online tools and practices that furthered transparency of costs, Clariant was able to pass cost increases on to customers. Simultaneously, Clariant evaluated several software providers to develop procurement forecasts for raw materials and margin scenarios. In addition, Clariant continued to refine its value-based and transactional pricing with software improvements and new applications to gain better insights into extraordinary price points, for example.

By carving out the savings or revenue upside in terms of total cost of ownership at a mutually beneficial price point, Clariant's commercial organization transforms value created for customers into profitable growth. Clariant's value calculators are a helpful tool to demonstrate a product's value to customers, as they quantify and visualize the financial benefits of using Clariant's products as compared to the next best competing alternative.

To develop solutions that create value for both the customer and Clariant, cross-functional teams are formed that combine expertise and training in innovation, marketing, sales, procurement, and operations. With this holistic approach, Clariant is able to detect optimization potentials in pricing and commercialization that ultimately lead to a compelling value proposition.

2.4. Enhancing commercial capabilities through the Leading Marketing Organization

In 2017, Clariant launched the Leading Marketing Organization, an initiative that further integrates marketing within the Business Units. In 2018, all key positions of the redefined marketing organizations were filled, and a training program that reinforces marketing skills was piloted. In 2019, an advanced strategic management program was launched to strengthen the commercial competencies across Clariant. Extensive internal and external training increased the quality and visibility of Clariant's marketing experts.

The Marketing Advisory Board, comprised of the Marketing Heads of Business Units, Head of Marketing Communications, and Head of Sustainability, continued to share best practices and drive further development of marketing processes, tools, and capabilities. In 2019, emphasis was placed on solving commercial challenges by developing best-in-class practices. By looking deeper into portfolio management, the customer journey, and commercial data analytics, Clariant will focus on the priorities defined as must-win battles of the Business Units in 2020. → PAGE 30

CUSTOMER TO CASH

3. Customer to Cash

Clariant continually optimizes planning, procurement, production, and delivery with a holistic and cross-functional approach. Operational Excellence balances supply and demand, resulting in improved product availability, reduced supplier cost, and lower risk. This results in shortened lead times and deliveries that are on-time and in-full, raising both customer satisfaction and Clariant's profitability.

3.1. Advancing end-to-end supply chains and operational excellence

Clariant's customers express continual interest in moving forward and connecting their supply chains. Thus, Clariant is building integrated end-to-end supply chains, enabled by digital dexterity, technology, and an agile mindset. The aim is to translate customer requirements into rigorous demand planning, facilitated by statistics, machine learning, and demand sensing. This ensures continuous interlinkage of the commercial with the operational value chain.

In 2019, Clariant implemented tactical sales and operations planning cycles under the leadership of profit and loss owners to ensure profitable and proactive balancing of demand and supply. The company further developed and implemented an end-to-end supply chain management dashboard using the Gartner Hierarchy of Supply Chain Metrics framework. The dashboard offers quick focus diagnostics while enabling deep dives for root cause analysis and solution definition, taking into account the delicate balance between service, cost, and net working capital. Clariant aims to further strengthen business planning to allow proactive monetized scenarios for business steering. The use of advanced analytics and tools in the organization will also help detect demand outliers and supply constraints in order to optimize network and logistics costs.

The Integrated Planning Landscape (IPL) and Inventory Health Checks optimized organization, capabilities, and IT tools and improved inventory performance throughout Clariant's operations. The Manufacturing Execution System (MES), rolled out in 2017, is a powerful tool that provides a real-time view of production status and enables continuous improvement.

3.2. Converting data into seamless processes

Digitalization offers plenty of opportunities to enhance operations. For example, in 2019, Business Unit Catalysts set up data infrastructure to gather information from different sources such as the SAP warehouse, the supply chain, the quality system, and production sensors and machines. By recording, cleaning, extracting, and modeling data, as well as connecting it with other information such as financial data, throughput, yield, and energy efficiency can be increased. Furthermore, the conversion costs of individual elements may be quantified. This big data analytics approach will be rolled out company-wide in 2020.

3.3. Nurturing agility

Customers across all markets are becoming ever more agile and expect the same from Clariant. In the past, large volumes with long lead times were the norm, while today small volumes and short lead times dominate business. By focusing on systematic demand and supply planning and the technology required to anticipate, detect, and directly react to production bottlenecks, Clariant is able to significantly reduce lead times. Projects to improve the operational chain are always run with a customer approach and divided into weekly work packages. Periodic feedback from users in the different Business Units, for example, in controlling, procurement, and production functions, is gathered, resulting in process adaptations where necessary. Clariant's efforts substantiate its reputation as a fast and reliable supplier.

3.4. Continuous cost saving and risk reduction in procurement

Clariant is embedded in an extensive global supply chain. In 2019, more than 6 800 vendors delivered raw materials worth CHF 2.6 billion to Clariant. Careful procurement is therefore vital in overall cost savings. In 2019, Clariant analyzed spend effectiveness in areas such as direct spend for chemicals, IT, site services and maintenance, and energy. The company identified a long-term savings potential of around CHF 135 million, of which CHF 50 million were already realized by 2019. Further, the company is developing the category strategies in alignment with the Business Units for direct spend.

In 2019, Clariant's efforts to reduce supplier risks was recognized externally. The company's integrative approach helps to select and manage suppliers meeting strict sustainability and risk expectations. Thus, Clariant received the World Procurement Award 2019 for the implementation of a holistic risk management process. Among other elements, the jury was impressed by Clariant having real-time information available to assess its supply chain. → PAGE 64

3.5. Sustainability supports operational efficiency

Sustainability topics are also gaining in importance for Clariant's operations. Clariant has continually embraced sustainable production as a driver for cost savings not only by increasing yield and reducing emissions, but also to save energy. The Production System Yield, Energy, Environment (YEE) and the eWATCH™ program both support these efforts. Through YEE, production processes and units are analyzed in order to optimize energy use, while eWATCH™ creates opportunities for savings by analyzing energy consumption across Clariant's entire operations. The environmental targets 2025 quantify Clariant's ambition to reduce energy consumption, greenhouse gas emissions, waste production, and water use, and drive environmental protection and operational efficiency. → PAGE 178

3.6. Safe and healthy operations

Running a safe operational chain is not only a stipulation of a responsible employer; it also minimizes disruptions in production. Clariant's ambitious health and safety target of zero accidents reflects both of these factors and is a top priority in operations. In 2018, »Safety Moments« – brief documents containing safety messages – were rolled out internally and used at the beginning of meetings to raise safety awareness. The lost time accident rate (LTAR) remained stable at 0.15 days lost per 200 000 hours of work in 2019. → PAGE 160


PROCUREMENT
LEADERS

Manage Risks Faster and Smarter

+ **Digitalization**

»No more guesswork«

Artur Kulawiński, Market and Risk Manager at Clariant, talks about the company's holistic approach to digital risk management along the entire supply chain.

Contribution to SDGs

This story is an example of Clariant's contribution to SDG 9 and SDG 12.
Read more on → PAGE 24



Artur, Clariant won two awards in 2019 for its procurement. What is it you're doing so well?
Both those awards essentially recognize the way we look at sustainability and risk along our entire supply chain – what we call modern holistic risk management.

Why is there a need for that?
Supply chain risk management has never been more important. That is especially true for the chemical industry. Ever tighter regulation and increasing awareness of sustainability are reshaping our industry. Managing the risks that can jeopardize compliance with these requirements throughout a global supply chain is hard. But it is vital to our business. So Clariant established a system that looks at risks across all Business Units, involves everyone in procurement, gives deeper and more useful insights, and leverages all the best digital tools available today.

What makes Clariant's risk management »holistic«?
The new emphasis on supply chain risk was initially driven by our efforts towards sustainability. But we decided to actually take a broader view. Our system very methodically monitors all the different kinds of risks. Plus, it not only aggregates information in real time but also actively works to eliminate or mitigate those risks together with our Business Units.

What are some of those risks?
First, there are production and supply risks, anything and everything that can disrupt our ability to deliver products. That can be natural disasters, strikes, or accidents – either at a plant or in transport. Then, there are environmental risks. Those are issues our suppliers may have in terms of environmental protection at their sites, for example. That can be a question of where their sites are located, but also of how committed they are to environmental safety and protection. There are also financial risks that can arise from bankruptcy or just generally poor financial health of a supplier. And finally, there are reputational risks, if any of our suppliers were accused of, say, bribery or child labor. That risk has increased significantly with the advent of social media.



001

001 Artur Kulawiński
Market and Risk Manager

002 New premises
The new headquarters for Clariant's Global Business Service in Lodz, Poland



002

Are all of Clariant's Business Units equally affected by those risks?
That depends on the materials and the markets they deal with. Some face more environmental, others more financial risks. Some industries are prone to force majeure incidents like natural disasters simply because of where their raw materials come from. And some, such as our Business Unit Industrial & Consumer Specialties, are particularly close to consumer brands, which are very sensitive to reputational risks.

What role does regulation play?
We are a chemical company, and we work with a wide range of highly regulated industries, including food, automotive, cosmetics, pharmaceuticals, consumer goods, and agriculture. So we need to be compliant with hundreds of thousands of regulations, which are also constantly evolving. Every quarter sees a significant increase and tightening in regulations.

How has that impacted Clariant in the past?
In China, for example, we've lost suppliers literally overnight. I remember a case where a plant was closed because, according to new regulations, the site was now too close to a river. We were basically informed that our supplier didn't exist anymore – or would at least need a couple of years to relocate production.

How did you respond?
In that case, Clariant had to discontinue the product in question. The material we needed involved protected intellectual property, and there was no alternative and no other source to turn to. That shows how immediate and far-reaching the impact can be. And this kind of thing has happened more than once.

Is that a problem specific to China?
No. The regulatory environment is different everywhere. But each country has its own risks. We have long-standing relationships with suppliers in Germany, for example. That can backfire just as well.

Awards in 2019

Acclaimed procurement



Markus Mirgeler
Head of Group Procurement Services

In 2019, Clariant earned two awards for its novel approach to supply chain risk management. The first was the EcoVadis sustainable procurement leadership award for having the »Best Internal Stakeholder Engagement.« The second was the World Procurement Award 2019 in the »Supplier Risk Management« category. In both cases, the awarding organizations highlighted Clariant's efforts to go beyond its procurement team and instead involve multiple internal and external stakeholders for a more integrated supply chain process. »Integrating sustainability and risk management along our supply chains is a cross-departmental responsibility and requires a broad commitment in order to be a success,« says Markus Mirgeler, Head of Clariant's Group Procurement Services. »So we are very proud of getting this great recognition and see it as an inspiration to keep pushing ourselves.«

When you're relying on a supplier via pipeline, all it takes is one small incident for production to grind to a halt. Or think of the Rhine. Droughts and low water levels have in the past made parts of it unnavigable for weeks at a time, crippling parts of the chemical industry concentrated along its banks because they rely on it for cooling and transportation.

Single sourcing is an obvious risk. Is Clariant working on that?
Absolutely. And not just for risk mitigation. It's also hard to cut costs and increase competitiveness when you are locked in like that. So we work to combat single sourcing, most importantly by helping and challenging our Business Units to find alternatives. But that is a long-term process. It can take up to two years to qualify an alternative. And sometimes there simply isn't one. Then, all you can do is build a stock and prepare to react to any disruption as fast as possible.

How does speed help?
If we are the first to know about a potential disruption, we might be able to very quickly acquire any available stock before it runs out or the price goes up.

Has that happened?
Yes. Not too long ago, we had a case where a procurement manager received an alert about a fire at a facility of one of our suppliers. He wasn't able to contact his key account manager, so he took mitigating measures into his own hands and acquired a safety stock just before the price jumped by more than 20 %.

How do you prepare for these kinds of events?
That is where our holistic approach comes in. Identifying risks is one thing. Managing them is another. We prepare for specific scenarios by establishing action plans together with our procurement managers.

What helps you predict risks?
The traditional and most thorough way to know your vendors is to audit them. And that is something we do. But with about 66 000 listed suppliers, there is no way of covering them all. And an audit only gives you a snapshot anyway. It doesn't tell you much about what might happen next week or next month. That's why we rely on digital technology and artificial intelligence, AI, to gather a lot more information in real time. We use a digital tool that lets us monitor more than 300 000 online sources – anything from news outlets and social media channels, to insurers and credit information providers, to government agencies and NGOs.

How does artificial intelligence help?
The tool uses about 100 indicators to screen those 300 000 sources for information on around 8 000 of our direct, indirect, and logistics vendors. Without the use of AI, there is simply no way of cutting through the noise and filtering relevant information. AI also helps eliminate trolls and misinformation. That way, we get relevant alerts in real time about any event that may impact our supply chain, and I make sure that information – along with a link to the source – reaches the right person to create an action plan.

What other tools are you using?
At the most basic level, we've established a process of self-assessment for our vendors with the help of Integrity Next. This service allowed us to check more than 12 000 of our medium- and low-spend vendors within the first few weeks. We found that 6 % of those required further auditing, and we're currently extending this check to all our suppliers where assessment is needed.

POLAND





Instant alerts
Artur Kulawiński is able to monitor thousands of suppliers across the globe.

»Mitigating the impact of a single major event easily covers the cost of the entire program for a year.«

What about those vendors that are especially critical to Clariant's business?
For our most critical vendors, we have a complete system in place that provides an individual risk scorecard. We aggregate all the information we can gather from our digital tools, from external evaluations by tools such as EcoVadis and the Together for Sustainability initiative, as well as from our own audits. We add the input of anyone at Clariant who's ever dealt with the company subject to the assessment. That gives us about 100 different risk indicators and an aggregated risk score for each of those critical vendors.

Who works with that information?
We have about 200 active users. As a kind of gatekeeper, I manage the database and ensure that all collected information and the scorecards are made available to anyone within procurement. For the most part, it's procurement managers, tactical buyers, regional heads, and category managers who use the information on a regular basis.

What does that risk score look like?
We boil it all down to a score between 0 and 100, where 100 represents a disrupting event happening right now. The score is updated in real time. So while a disruption brings up the score immediately, it will also revert back to its previous level as soon as we hear the issue has been dealt with adequately.

What's the average score?
The average score is in the mid-50s. Anything below 40 is considered good or very good. The best scores are in the low 20s. But there is no business without risk, so there is no supplier scoring anywhere near zero.

How does this holistic risk management affect Clariant's bottom line?
That is not easy to measure. We obviously can't tally a number of yearly disruptions to avoid. But we confidently estimate that every dollar spent on prevention or mitigation will save roughly five dollars in damage. Or look at it this way: A single major event, like the one we had with the fire, easily covers the cost of the entire program for a year.

What are your goals?
There is always room for improvement. For example, by fine-tuning what we monitor, what is relevant, and to whom. We're working to cover even more of our spend and to identify further critical suppliers. Another aim is to bring down the average risk score to around 35 – 40 by the year 2022 and to significantly decrease our rate of single sourcing. In a way, that is the real beauty of the system: having those numbers to work with. Risk has always been something you had to take into account in procurement. What we've done is take out a lot of the guesswork. We're relying on data rather than a gut feeling.

Value Creation in the Business Areas

In the chapter »Value Creation in the Business Areas,« Clariant illustrates how each Business Area contributes to the company's overall success. By implementing the three value-creation processes – Idea to Market, Market to Customer, and Customer to Cash – Clariant's Business Areas secure opportunities for sustainable market success. They capture major societal trends and market developments, leading to the creation of customer-oriented products and solutions that enhance Clariant's growth and profitability.

074 How Care Chemicals Creates Value
080 Advance Natural Ingredients
088 How Catalysis Creates Value
094 Be a Local Partner
102 How Natural Resources Creates Value
108 Help Cities Move Forward
118 Discontinued Operations

The high-value product range of Clariant's Business Areas serves multiple industries around the world. With innovative and sustainable solutions, Clariant responds to changing customer and market needs.

In 2019, despite challenging economic conditions and modest demand for industrial applications, Clariant's sales increased in local currency. Growing demand for environmentally friendly and need-focused products provided business opportunities in all Business Areas.

In order to stay ahead of the competition, Clariant unveiled the »Innovation Excellence & Business Incubator« unit in 2019, emphasizing the company's commitment to strong innovation management. With a well-filled innovation pipeline, a more digitalized R&D system, enhanced laboratory capacity, strategic partnerships, and close collaboration between the four Technology Platforms and the Business Units, Clariant is well positioned to develop value-adding solutions at unprecedented speed.

Further strengthening commercial and operational capabilities allowed the Business Areas to provide customers with improved value propositions at the best cost-performance ratio. Through cross-functional collaboration, data-driven customer segmentation, and the implementation of new digital tools, Clariant attained a holistic picture of the customer journey and was able to offer tailored solutions, thereby increasing sales effectiveness.

To shorten lead times and systematically match supply with demand, the Business Areas focused on optimizing planning, procurement, production, and delivery. This makes Clariant an agile and reliable supplier that provides a safe and healthy working atmosphere while also protecting the environment.

Business Area Care Chemicals
comprises the Business Unit Industrial & Consumer Specialties (ICS) as well as New Businesses, which encompass Electronic Materials and Additive Manufacturing/3D Printing. These businesses focus on high-margin and low-cyclicality segments. Care Chemicals provides specialty chemicals and application solutions for the consumer care market, industrial applications, base products, food ingredients, and encapsulation technologies. The Business Area follows lifestyle-driven megatrends and strengthens Clariant's position as a supplier of sustainable products.

Business Area Catalysis
comprises the Business Unit Catalysts and the Business Line Biofuels & Derivatives. It develops, manufactures, and sells a wide range of catalyst products for the chemical and fuel industries, which contribute significantly to value creation in customers' operations, ensuring finite raw materials and energy are used efficiently. In addition, Catalysis is at the forefront of new market developments for bio-ethanol.

Business Area Natural Resources
comprises the Business Units Oil and Mining Services, Functional Minerals, and Additives. It is characterized by high growth and a strong megatrend orientation. Main drivers are the rising demand for high-value-added specialty chemicals used in the oil, mining, food, and packaging industries and the increased consumption of oil, gas, and base metals, driven by fast-growing economies. Additives provides highly customized solutions for the plastics and coatings as well as for consumer industries serving megatrends such as mobility, digitalization and sustainability.

Discontinued Operations
Since July 2019, the Business Units Pigments and Masterbatches are reported under Discontinued Operations, as they are intended to be sold by the end of 2020. Closely tied to GDP growth, they provide highly diversified end applications to the construction, automotive, electronics, and health care industries. With their innovative applications for biodegradable, compostable, and recyclable plastics, they contribute to the transition to a circular economy.

How Care Chemicals Creates Value

The Business Area Care Chemicals encompasses Industrial & Consumer Specialties (ICS) and New Businesses. With high-performing ingredients, formulation expertise, and an integrated value chain, Care Chemicals concentrates on markets with high margins and short cyclicality and responds quickly to consumer-driven trends.

1. Addressing market developments and changing consumer behavior

Growing consumer demand for sustainable, safe, and convenient ingredients creates a favorable business environment for Business Area Care Chemicals. With its high-performing, sustainable products and customized solutions, Clariant meets global market expectations while also addressing the rising importance of fulfilling local customer needs. → **FIGURE 001**

001 **CARE CHEMICALS**

OVERVIEW

The Business Area Care Chemicals comprises the Business Unit Industrial & Consumer Specialties (ICS), which serves customers in the personal care, home care, paints and coatings, and crop solutions markets, and New Businesses.

APPLICATIONS

Business Unit Industrial & Consumer Specialties

- Automotive fluids
- Aviation
- Construction
- Crop solutions
- Gas treatment
- Heat transfer fluids
- Industrial and home care
- Industrial lubricants
- Paints and coatings
- Personal care
- Special solvents

New Businesses

- Additive Manufacturing/3D Printing
- Electronic Materials

PRIORITY SDGs

- SDG 2 Zero Hunger
- SDG 3 Good Health and Well-being; SDG 12 Responsible Consumption and Production
- SDG 6 Clean Water and Sanitation
- SDG 15 Life on Land

The Personal Care market is confronted with a dynamic and demanding marketplace as end-consumers increasingly challenge brand owners to create positive social and environmental impacts. By developing new solutions for an increasingly diverse population, Clariant is helping to transform the beauty industry into a more innovative and multifaceted industry.

In the Industrial and Home Care market, the rise of e-commerce has increased demand for easy-to-use solutions that balance customers' concerns about size and weight to ship such end products while maintaining the added benefits. In the industrial lubricant area, despite new tariffs and their impact on the global manufacturing industry, Clariant was able to respond to the sustainability and electrification trends by providing environmentally friendly solutions at the best cost-benefit ratio.

With increasing regulatory requirements regarding ecolabel criteria and discerning consumer preferences, the Paints and Coatings business capitalized on the demand for safer and more ecological ingredients by offering an extensive portfolio of neutralizing additives, wetting and dispersing agents, emulsifiers, and products to formulate biocide-free paints, which contribute to a healthier indoor environment.

The Crop Solutions business has been affected by new technologies, regulations, trade tensions, and increasing demand for bio-based solutions. Thanks to digitalization, farming practices now require new and adapted solutions, such as drone technologies. With specialized adjuvants, Clariant aims to exploit the full potential of drone application and reduce dose rates and water volumes, leading to considerable cost savings for farmers

and optimized yields in the harvest season. Further, with its previous investment in a modern crop greenhouse, Clariant is now in a strong position to benefit from the continuing global trend toward sustainable crop protection for the world's increasing nutrition requirements.

IDEA TO MARKET

2. Combining innovation and sustainability

Care Chemicals is striving for innovations in the sustainability field by finding new solutions based on renewable resources and developing more environmentally friendly substitutes. Creating disruptive innovation requires a diversified toolset, the use of new technologies, and close collaboration among different corporate functions.

Business Area Care Chemicals aims to increase the use of renewable raw materials and achieve an innovation pipeline that is predominantly based on renewable feedstock coming from agricultural waste streams. In 2019, this share was increased again.

As customization and sustainability became predominant in the Personal Care sector, Clariant developed a set of substantiated, naturally active ingredients with scientifically proven high performance. This includes the award-winning B-Circadin™ and Epseama®. → PAGE 80

Epseama® for skin rejuvenation

The new active ingredient Epseama® pioneers the targeting of long non-coding RNA nc886 to rejuvenate skin self-renewal and self-defense abilities and preserve skin youth. It is extracted from the seaweed Laminaria japonica (Kelp or Kombu), known as the »superfood of the sea.«

Through its worldwide network of local partners, Business Area Care Chemicals has access to age-old plant knowledge and exotic biomes around the globe. Complemented by transparent sourcing, responsible cultivation, and advanced formulation expertise, Clariant has developed solutions that combine sustainability and performance.

In the paints and coatings business, as trends are shifting from solvent- to water-borne systems, Clariant continued to reformulate and develop dispersants for products that are free from ingredients under scrutiny, such as biocides and alkylphenol ethoxylates (APEO)/nonylphenol ethoxylates (NPEO). Dispersogen® PLF 100, for instance, is APEO/NPEO-free, low in semi-volatile and volatile organic compounds ((S)VOCs), and free of biocides. It further improves performance and efficiency by suppressing leaching effects in paints.

3. Becoming a preferred innovation partner

To increase the speed and quality of innovation, Business Area Care Chemicals expanded its pilot of the Innovation Garage (iGarage) to develop new products and solutions according to customer needs. Two new iGarages were completed while one iGarage was conducted in collaboration with a customer from the Industrial and Home Care business. → PAGE 141 Within a short time, the combined team created early-stage prototypes using concepts and technologies from both companies and tested them with real customers. Based on the exciting outcome, the companies will investigate next steps to further develop the concepts into new products. The successful collaborations significantly enhanced trust in the developing relationships between Business Area Care Chemicals and major consumer care brand owners.

»By monitoring and anticipating consumer trends, we develop sustainable solutions that do not compromise on performance and place our customers ahead of the market.«

Vincent Gass
Head of Global Marketing, Business Unit Industrial & Consumer Specialties

MARKET TO CUSTOMER

4. Launching high-performing and eco-friendly solutions

Product launches in 2019 included a number of solutions that meet customer needs for safe and natural products.

Clariant launched its new »Envisioning Beauty« platform in 2019. Based on market and customer insights, Clariant defined five product clusters – Actives, Functional Claims, Sensorial Effects, Preservation, and Naturals – to help customers differentiate their cosmetics as sustainable, inspiring, and easy to use.

In 2019, Clariant introduced its new plant-based Plantasens® Flash 80 and Flash 100. The two ingredients represent a major milestone for formulations as they are not only eco-friendly and affordable, but also high-performing market alternatives for silicone. Another highlight was the launch of the new CareMag™ D, which draws on Dead Sea salts and is a suitable replacement for aluminum derivatives in deodorants. The product enables aluminum-free, alcohol-free, and paraben-free deodorant formulations. Moreover, NeutroTain® DMG was launched. The 75 % sugar-based, renewable, and readily biodegradable neutralizing agent is used for hair and skin products. In the Home Care business, Clariant unveiled the new concept CleanJoyable, which is comprised of TexCare® SRN 260 and EcoTain®-labeled GlucoPure® Sense and Aristocare® Smart. GlucoPure® consists of 95 % renewable raw materials.

→ PAGE 149

Clariant Naturals

The flagship platform enables manufacturers to create even 100 % natural formulations. The definition of »natural« is, for example, based on the ISO standard 16128, which uses the widely accepted Renewable Carbon Index (RCI) as its main metric to reflect the degree of naturality.

5. Capturing regional trends to strengthen customer centricity

In 2019, customer events and innovation workshops across the globe helped Business Area Care Chemicals develop client-specific solutions. The Business Area intensified its focus on the life cycle of substances that are or will be under public concern or scrutiny, to develop substitutes that will ensure its customers are ahead of their competitors. The cosmetics industry, for instance, is focusing on products that are preservative-free and use minimal water. To address this major trend, Clariant launched ReMAGINE, a water-free platform containing six formulations for daily personal care routines. The formulations contain little or no water and are a successful follow-up to last year's »Essence« initiative, which delivered 15 formulations without questionable ingredients that achieved the same performance and sensorial benefits as conventional ones.

Through the trend-monitoring platform BeautyForward®, Business Area Care Chemicals can respond quickly to market trends and customer needs in the personal care sector. For the third edition of BeautyForward®, Clariant went from a global to a more local perspective, concentrating on regional formulations. In 2019, Clariant identified five regional trends and provided illustrative full formulations.

The presence of sales, technical, and marketing expertise across the globe allows Business Area Care Chemicals to reveal regional and local market insights. In 2019, a Consumer Care Innovation Center in the New York City area, United States, was inaugurated to develop solutions derived from customer needs in North America. In the testing center, lab results can be correlated with actual consumer testing, and

the collaboration space allows interactive and creative thinking. This center enhances Clariant's innovation capabilities to leverage customer formulations and reinforces beneficial relationships in North America.

CUSTOMER TO CASH

6. Connecting the supply chain

In 2019, Clariant's Manufacturing Execution System was further rolled out to provide a real-time view of the production status. By applying analytical methods and data-driven tools, Business Area Care Chemicals further optimized the production processes. For example, it conducted a pilot project to increase efficiency in the supply chain by applying Radio Frequency Identification technology (RFID). Also, Business Area Care Chemicals explored the possibilities of automation and digitalization for its supply chain activities in order to optimize process control, reduce wait time in production, and minimize the risk of errors by better connecting and integrating its planning tools. In addition, the newly established global Supply Chain Team supported the harmonization and optimization of supply chain processes around the globe.

To improve traceability and transparency in the supply chain, Business Area Care Chemicals is looking into integrated tracking system solutions that provide customers with timely information about orders and shipments. This supports Clariant's efforts to connect suppliers with end customers.

Translating five regional beauty trends into concrete formulations

USA – BLUE GOLD

Due to increasing water scarcity in North America and demand for water saving products, Clariant designed an exceptionally gentle Polish Powder Cleanser with no sulphates, betaines or fragrances that uses up to 60 % less water compared to liquid cleanser.

BRAZIL – #CONSCIOUSBEAUTY

The Peace & Love Mineral Sunscreen SPF 30 is free from chemical UV filters, silicones, and fragrances and adapts to all skin types. Being vegan and 75 % plant-based, this sunscreen is COSMO-certified and enables natural beauty care routines.

CHINA – GUARDIAN ANGEL

To protect the skin against sun, environmental pollutants, and oxidative stress, Clariant developed Urban Skin Age Defense Lotion Broad Spectrum SPF 50 PA+++.

FRANCE – REDEFINING EDEN

Clariant's My Synchronizer Face Roll On is an anti-fatigue face roll-on characterized by a watery and silky sensory that is targeted to all genders, thereby countering conventional gender stereotypes in skin care.

INDONESIA – BLUE GOLD

To respond to Indonesia's lacking water infrastructure, Clariant designed the Beautiful Days Perfume Body & Hair Balm from 100 % natural ingredients. With 0 % alcohol, it uses 90 % less water when compared to a regular liquid splash.

7. Enhancing capabilities and increasing capacities

To further improve product quality and quantity at its ethylene oxide production plant in Gendorf, Germany, Business Area Care Chemicals added a production line of alkoxylates and installed a new distillation column that will operate from 2020 onward. In addition, Clariant and Saudi Kayan are currently evaluating the potential of an alkoxylates joint venture.

8. Improving the environmental footprint in operations

Business Area Care Chemicals continues to ensure sustainability and environmental protection alongside Clariant's growth strategy. In 2019, individual sites implemented several measures to improve their environmental footprint. Through improved chilled water systems and compressed air systems, as well as the installation of LED technology for illumination, Business Area Care Chemicals was able to decrease its electricity consumption. Steam consumption was also reduced by optimizing the seasonal control and temperature level of water systems as well as improving the integration of steam condensate. To reduce water and wastewater, the recovery rate of water demineralization units and waste gas treatment were optimized through a better separation of rainwater.

9. Enhancing safety along the entire supply chain

Business Area Care Chemicals places a high priority on safety. Frequent audits at all plants contributed to rigorous improvements in product quality, environmental protection, health and safety precautions, and reduced accident risk. In 2019, the Business Area undertook important steps toward Clariant's goal of zero accidents. The AvoidingAccidents program was implemented at all sites while refresher trainings were conducted at all sites that had already implemented the program. The newly inaugurated wastewater treatment plant in Bonthapally, India, also successfully launched the AvoidingAccidents program, which will be completed at the beginning of 2020. At the sites in Suzano, Brazil, and Gendorf, Germany, the Business Area implemented the Clariant Global Operational Discipline initiative. The initiative consists of safety trainings and an awareness-raising campaign. Other sites will follow over the course of 2020.

To ensure that safety is also a priority in the supply chain, the site in Suzano, Brazil, developed a new contractor management procedure to safeguard the occupational health and safety of its contractors' employees. The system will be implemented at the beginning of 2020. Additionally, Business Area Care Chemicals continued to equip its ethylene oxide transportation units, which carry potentially harmful substances, with real-time information on safety conditions such as temperature and location.

Targets

5 – 7 %
Growth potential per year

19 – 21 %
EBITDA target margin

Performance

INPUT

2.9 %
R&D spend of sales

857
Raw material procured in CHF m

> 70
Active innovation projects

13
Production sites

2 714
Number of raw materials procured

OUTPUT

1600
Sales in CHF m

– 1 %
Growth in local currencies

17.6 %
EBITDA margin after exceptional items

0.96[1]
Production volume in m t

People

INPUT

32 172
Training hours

1672
Raw material suppliers

OUTPUT

2 614
Staff in FTE at year-end (2018: 2 541)

Planet

INPUT

757.2[2]
Energy consumption in m kWh

OUTPUT

65.4[2]
Waste in thousand t

209[2]
Greenhouse gas emissions in kg/t production

Financial capital · Intellectual capital · Manufactured capital · Human capital · Relationship capital · Natural capital

[1] For 2019, the production volume is based on a reduced reporting scope, which includes sites that are responsible for 95 % of total production.

[2] Every three years, Clariant validates environmental data from all production sites. The last full reporting campaign was in 2017. In the interim years, including 2019, the reduced reporting scope comprises the larger sites responsible for 95 % of production.



Advance Natural Ingre-dients

+ **Product Stewardship/ Sustainable Chemistry**

Decoding Chinese beauty

The Chinese beauty market is growing and evolving. Brands vying for a share need to understand both natural actives and the consumers that buy them.

Contribution to SDGs

This story is an example of Clariant's contribution to SDG 3 and SDG 15.

Read more on → PAGE 24



The video is shaky, obviously filmed on a smartphone. But what Fang Junping lacks in production value, he easily makes up for in confident charm. His lab coat lends an additional air of scientific authority as he explains to a giggling woman off camera what goes into her whitening cream. It's one of Fang's early videos that went viral on Weibo, China's answer to Twitter. And it's what kick-started his career as a KOL, or »key opinion leader,« as China's internet influencers are called.

Today, Fang (better known by his online alias »Junping Big Devil«) has over 8.7 million followers on Weibo. His videos are snappy and better lit these days but their premise is unchanged. Fang is part of a movement of self-proclaimed chen fen dang (成分党), which loosely translates to »ingredient geeks.« They claim to scientifically decode the ingredient lists of popular cosmetics and to let consumers in on what really works and why. Their audience is huge and eager to learn. And the industry itself is paying attention.

The Chinese cosmetics market is the world's second largest, topped only by the United States. And it just keeps on growing. According to Euromonitor, a market research firm, Chinese consumers spent over 212 billion yuan, or around CHF 30 billion, on skincare products in 2018. That is a year-on-year growth of more than 13 %. What's more, Euromonitor sees unmet potential worth over CHF 133 billion in retail sales for beauty and personal care overall. No wonder the industry and most global brands have turned to China for growth. However, Chinese consumers are very particular about what they want. And, as ingredient geeks will tell you, they won't be fooled by simple marketing jargon.

According to a 2018 study by Clear, a global marketing strategy consultancy, 69 % of Chinese skincare consumers are willing to pay a premium for natural ingredients. At the same time, other studies show that effectiveness is their top priority. »Ten years ago, Chinese consumers might have gone for a product, say a skin cream, because it contained some floral extract that appealed to them on an emotional level,« says Christoph Yu, Head of Marketing for China and Asia-Pacific for the Business Unit Industrial & Consumer Specialties (ICS) in Shanghai. »Today, they want to know exactly what it promises to do to their skin on a cellular or even a molecular level. They still want natural ingredients. But they want science and high tech on top of that.« Clariant's Active Ingredients business, a subdivision of ICS, caters to those tastes. Its claim: »Powered by nature. Advanced with science.«

001 Christoph Yu
Head of Marketing China and Asia-Pacific, Business Unit Industrial & Consumer Specialties

002 Shanghai
Urbanization is reshaping Chinese society. It also drives new trends in personal care.



001



002

New markets

Going beyond China



Sophia Kim
Business Development Manager Asia-Pacific for Active Ingredients, Business Unit Industrial & Consumer Specialties on expanding Chinese brands and some specific needs in South Asia

Sophia, with the Chinese beauty industry growing and innovating so fast, do you see its domestic brands going global?
It is definitely possible to see trends coming from China in the future. Today, Chinese consumers still very much look to South Korea and Japan for trends, and I don't see K-Beauty and J-Beauty being replaced by »C-Beauty« anytime soon. However, that doesn't mean Chinese brands aren't expanding abroad.

Where else are Chinese brands making their mark?
We see them doing well in India, for example. That's a sizeable emerging market where the Chinese are very competitive. And Chinese brands are strong in countries like Malaysia and Indonesia. These countries are promising if you can adapt and cater to their unique requirements.

What are some of the different needs in these countries?
Price is one thing, obviously. But take Indonesia, the world's most populous Muslim country. Here, it's vital to address specific consumer needs. When wearing a hijab, for example, you need to treat your hair and scalp very differently. And brands have to document that all their ingredients and production processes meet local halal requirements. That's another thing Clariant can help its customers with.

Unique natural extracts
Active Ingredients was only established in 2017. It specializes in natural extracts that tackle very specific cosmetic issues. The offices of the business are located in the French city of Toulouse. That's also where it does most of its research to establish and substantiate product claims. But ever since Clariant joined forces with BioSpectrum, a Korean manufacturer of active ingredients, the company has had a strong foothold in East Asia too. That has proven especially helpful in finding naturally occurring molecules that not only show the desired effect but will also resonate with Asian consumers.

Many of the natural extracts Active Ingredients sells are sourced on Jeju, a volcanic island off the coast of the South Korean mainland. It is home to several world heritage sites and more than 1 800 different plant species – many of which don't grow anywhere else. »The plant extracts we find on Jeju are very unique in their composition, but the plant species themselves are also well known in Traditional Chinese Medicine,« says Sophia Kim. »Add to that our highly scientific approach to establishing and substantiating their beneficial effects on the skin, and you have a package that chimes well with Asian and especially Chinese consumers.« Kim recently joined Clariant's Active Ingredients team as a Business Development Manager for Asia-Pacific. She has close to a decade of experience in the actives industry as well as degrees from Korean, Chinese, and American universities. Bridging cultures is part of her job for Clariant too. She works closely with Yu and the ICS marketing team in Shanghai but is herself based in Seoul.

South Korea has in recent years emerged as one of the most innovative cosmetics markets worldwide, alongside Japan and France. K-Beauty, as it's widely known, has garnered huge attention with »a certain gentle, nature-meets-technology ethos,« as the Wall Street Journal once described it. Women – and some men – all over the world have adopted elaborate multi-step K-Beauty skincare routines. The idea being that the right treatment can create a complexion so healthy, even, and beautiful that there is no need to hide anything with concealers and foundations.

»China is really close to South Korea, and not just geographically,« says Kim. »We're dealing with very similar skin types and hair structures. Consumers in both our countries are deeply familiar with Traditional Chinese Medicine, and they're concerned about some of the same environmental factors that cause skin irritation and premature aging.«

Wary of air pollution

One traditional concern particular to China and some of its surrounding countries is protection against UV rays, but not just because they are a major cause of skin damage and premature aging. A pale, white complexion is seen as the hallmark of a glamorous woman in China. Darker-skinned women can even feel stigmatized. As a result, lightening and whitening products are a huge market. And Clariant's Active Ingredients does offer natural products that help repair the damage done by UV light and can even lighten the skin naturally by, for example, reducing the synthesis of pigment in the skin's melanocytes. However, the business has recently focused on skin issues that are more specific to modern life in urban China.

»Anti-pollution skincare is a big trend,« says Christoph Yu. »People are very much aware of the impact that airborne pollutants have on their health and their skin in particular.« Clariant's answer to this is called RedSnow®. It's a natural active ingredient derived from floral extracts of Camellia Japonica, the common camellia. »We use a very unique variety grown on Jeju Island,« says Kim. »It's not just a beautiful red flower that actually blooms in winter, hence the trademarked name. It's also especially rich in the type of molecule we look for.« To put that in ingredient geek terms: RedSnow® contains protocatechuic acid, a type of phenolic acid with strong antioxidant properties. It also blocks the cell's aryl hydrocarbon receptors, or AhR, which are triggered by pollutants such as particulate matter and heavy metals in the air. In short, RedSnow® helps if bad air makes your face red and itchy. Another active ingredient, called Eosidin®, specifically targets the negative effects of indoor pollution. It's derived from a certain variety of unripe citrus. These are gathered during pruning and previously went unused, which makes Clariant's product especially sustainable.

»These products have gotten a lot of attention because they are highly effective, but also because they tell a great story,« says Alexandre Lapeyre, Global Technical Marketing Manager for Active Ingredients. Stories matter. They help brands stand out. That's especially important to up-and-coming local brands in China. »There's a huge difference between today and when I was visiting Chinese trade shows eight or even five years ago,« says Lapeyre. »They're teeming with emerging local companies that have great booths and very professional marketing. They're really inspiring to talk to.« The top three global players in China, Procter & Gamble from the United States, L'Oréal from France, and Shiseido from Japan, together take up a significantly smaller share of the market in China than they do globally. Homegrown and small brands are strong. Yu sees these »local heroes,« as he calls them, as especially nimble and open to new consumer needs. »They are our main customer base in China, and they're extremely agile. These companies really have their ear to the ground,« he says. The fact that Chinese consumers tend to be less loyal to brands in general and more open to innovation works in their favor.

Never too young for antiaging

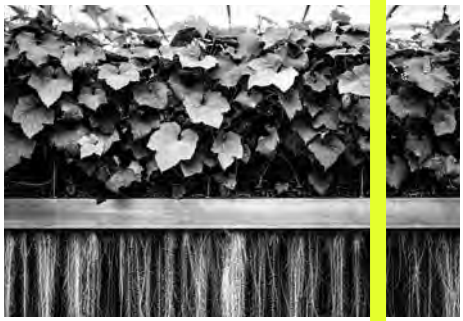
Digitalization is another reason why smaller brands are making their mark. Social media and e-commerce are huge in China. Here, the battle is not about shelf space, but more about attention. The role of department stores and traditional advertising is shrinking. And that's true not just for the young generation. The silver economy of affluent consumers is growing, and seniors are surprisingly tech-savvy. According to Daxue Consulting, around 64 % of seniors on JD.com, Chinas second largest online retailer, do their shopping on mobile devices. Meanwhile, China's young and mostly less affluent »skintellectuals« invest a significant proportion of their salary in skincare. But they pour even larger chunks of their free time into researching the most effective ingredients and the best deals – relying on KOLs to guide the way. Most recently, highly concentrated active ingredients have been creating a buzz on Chinese search engines like Baidu.

CHINA & SOUTH KOREA



New technology

Milking plants



Growing plants in aeroponic conditions allows PAT to harvest active natural compounds directly from their roots.

A new collaboration helps Clariant discover new active ingredients and makes harvesting them more sustainable.

Plants absorb and store vital nutrients in their roots. So it is no surprise that these roots often are also especially rich in some of the biochemical compounds that can prove valuable in cosmetics and pharmaceuticals. Even so, roots are often overlooked as a source for active ingredients. One reason is that they are harder to harvest than stems, leaves, and fruits. And they are almost impossible to obtain without destroying the whole plant, which makes their harvest less sustainable. Clariant's latest strategic collaboration in research and development is set to change that.

In 2019, Clariant joined forces with Plant Advanced Technologies (PAT) based in Nancy, France. As a university spin-off, PAT has perfected technologies to harvest plant extracts directly from the root. For one, PAT cultivates its plants in aeroponic conditions without the use of soil or any other substrate. That way, the roots stay easily accessible. PAT's proprietary milking technology then encourages the roots to synthesize the desired phytochemicals directly. This not only yields especially high concentrations and more active extracts than any other method, but it is also nondestructive and thus allows for several harvests per year. That way, PAT is able to produce natural extracts with a substantially smaller ecological footprint and does not compete with agricultural food production.

One thing that apparently never goes out of fashion in China is antiaging. While some parts of the Western world proclaimed »the end of antiaging,« with brands adopting age-positive messages, China is still obsessed with eternal youth. A common refrain is that Chinese women are never too young for antiaging. The hope is to maintain a youthful appearance by starting young and investing early.

Clariant's most recent innovation, called Epseama®, ties all these trends together. It's the first active ingredient to directly target a long non-coding RNA in order to fight three main causes of aging: photoaging, chronoaging, and inflammaging. And of course it's derived from natural sources. In this case, it's Laminaria japonica, a brown seaweed or kelp. As »kombu,« it's a staple in Traditional Chinese Medicine as well as in many cuisines across East Asia. »It's sometimes referred to as ›the superfood of the sea‹ because it's so full of vitamins and minerals,« says Kim. Clariant uses sustainable »ugly-food« sourcing by purchasing only the cuts that aren't square and regular enough for the food market. »Looks don't matter to us because, in Epseama®, we use an extract that works on a much deeper level,« says Kim. »It contributes to boost the expression of a certain long non-coding RNA called nc886, which in women commonly decreases significantly after the age of 40.«

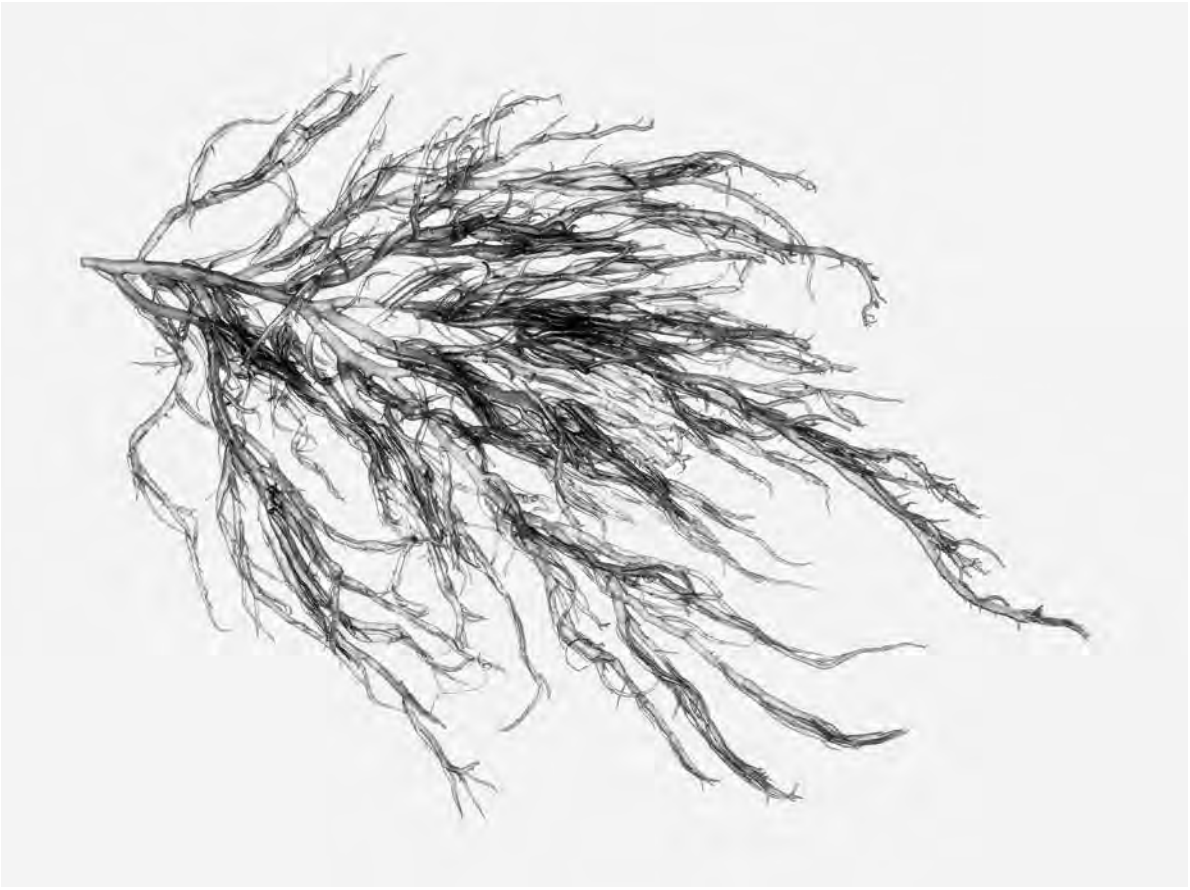
RNA, or ribonucleic acid, is central to any cellular activity, and nc886 has been found to play a role in collagen production, which is vital for smooth and supple skin. Or as the Epseama® brochure puts it, »the expression of nc886 inhibits the production of MMP-9, a collagenase that degrades collagen IV and increases the production of collagen IV, VII, and XVII, which are key components of the dermis-epidermis junction.« Now, there's something for »Junping Big Devil« and his fellow ingredient geeks to decode!

001 Alexandre Lapeyre
Global Technical Marketing Manager for Active Ingredients, Business Unit Industrial & Consumer Specialties

002 Superfood of the sea
Laminaria japonica is a staple both in Traditional Chinese Medicine and in many cuisines across East Asia.



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How Catalysis Creates Value

As sustainability becomes an imperative for businesses around the globe, Business Area Catalysis, which comprises the Business Unit Catalysts and the Business Line Biofuels & Derivatives, is thriving. With a clear focus on innovation and partnerships, the Business Area is underlining its commitment to offer high-performing catalytic and biofuel solutions to its customers.

1. Profiting from rising awareness for sustainability

With its innovative catalysts and adsorbents, Business Unit Catalysts delivers significant and sustainable customer value by driving higher production throughput, lowering energy consumption, and reducing hazardous emissions from industrial processes and combustion engines. → **FIGURE 001** Population growth and the rising standard of living in emerging countries are expected to double the demand for chemicals by 2030, simultaneously increasing the associated energy consumption. Thus, chemical production will have to be more efficient to achieve sustainable energy consumption. Business Unit Catalysts is confident in its ability to capitalize on these developments as its main products – catalysts – enhance sustainable and energy-efficient production.

For Business Line Biofuels & Derivatives, the world's growing efforts to fight climate change are paramount. To limit global warming, action to reduce greenhouse gas emissions is necessary, particularly in the transportation sector, where greenhouse gas emissions are increasing. Advanced biofuels present a low-emissions solution, and legislation around the world is fostering their proliferation. Advanced biofuels, also referred to as second-generation biofuels, are extracted from non-food crops, crop waste, or other residues. In over 70 countries, regulatory mandates for biofuels have

001 **CATALYSIS**

OVERVIEW

Business Area Catalysis comprises Business Unit Catalysts, which runs 14 production sites globally, and Business Line Biofuels & Derivatives. The applications for its product portfolio include chemical production, fuel processing, as well as custom catalysts. Business Line Biofuels & Derivatives complements the offering with sunliquid®, a groundbreaking technology to produce biofuels and renewable raw materials from agricultural residues.

APPLICATIONS

Business Unit Catalysts

- Ammonia
- Custom catalysts
- Ethylene derivatives
- Fischer-Tropsch
- Fuel cell
- Fuel upgrading
- Gas processing
- Hydrogen
- Hydrogenation
- Methanol
- Off-gas treatment for chemical plants and stationary engines
- Oxidation
- Polypropylene
- On-purpose propylene, methanol-to-propylene (MTP)
- Refinery stream purification
- Olefin purification
- Styrene
- Zeolite powders

Business Line Biofuels & Derivatives

- Biocatalysis
- Cellulosic ethanol
- Cellulosic sugars
- Low-carbon advanced biofuels
- Residue-derived biomaterials

PRIORITY SDGs

- SDG 7 Affordable and Clean Energy
  SDG 13 Climate Action
- SDG 9 Industry, Innovation, and Infrastructure
- SDG 12 Responsible Consumption and Production

been established. In the European Union, for example, the Renewable Energy Directive (RED) II foresees a 3.5 % advanced biofuels use by 2030. India's administration mandated twelve second-generation ethanol plants to be built by 2022. In China, a nationwide mandate to achieve a 10 % renewable ethanol content in transportation fuels should be established with strong governmental support for non-food-based biofuels and second-generation ethanol plants. These legislation mechanisms are expected to drive demand for advanced biofuels, offering significant growth potential.

IDEA TO MARKET

2. Advancing through innovation and collaboration

Investment in innovation is the cornerstone of success in the catalyst business. Business Unit Catalysts focuses its innovation activities on continuously increasing the efficiency, performance, and sustainability of its products. In recent years, a pronounced focus on research and innovation in China led Clariant to implement a new Research and Development initiative for catalysts in the country. As its production capacity and innovation efforts grow in the region, the company's local footprint continues to expand.

Supporting innovation and talent in China

In 2019, Clariant sponsored the »Young Scientist Award« at the National Congress on Catalysis of China. The prize recognizes researchers under the age of 45 for their outstanding contributions to catalyst technology.

As an innovation leader and an independent catalyst supplier, Business Unit Catalysts forms partnerships with leading process licensors and engineering partners globally. The combination of outstanding catalytic solutions and independent process technologies offers customers a convenient all-in-one package. An example of such a partnership is the collaboration with the engineering partner Wuxi Xiyuan to supply a joint production technology to formaldehyde plant operators. By 2019, the innovative solution based on Clariant's FAMAX® 200 DS catalyst is installed in six formaldehyde plants with an annual capacity of 825 kilotons of formaldehyde in China and India. Clariant and Wuxi Xiyuan also joined forces in innovative off-gas treatment solutions enabled by Clariant EnviCat® VOC catalysts and Wuxi Xiyuan technology for silver-based formaldehyde plants in China.

3. Maturing and modulating sunliquid®

Business Line Biofuels & Derivatives focused innovation activities on its flagship technology sunliquid®. In 2019, Clariant and ORLEN Południe signed a license agreement on sunliquid® cellulosic ethanol technology. ORLEN Południe is a member of the ORLEN Group, a leader in the fuels and energy markets in Central and Eastern Europe. This license agreement is another successful step toward the commercialization of the sunliquid® technology for advanced biofuels in Europe. ORLEN Południe plans to use the innovative and sustainable technology for project development and plant operation at its Jedlicze site in southeastern Poland, utilizing available land and the potential for integration with its existing petroleum refinery. Once inaugurated, the annual production capacity is planned to be 25 000 tons of bioethanol.

In 2019, Clariant also signed a Memorandum of Understanding (MoU) with the Chinese companies Anhui Guozhen Group and Chemtex Chemical Engineering on its sunliquid® technology. The MoU was followed by a license agreement at the beginning of 2020. The Chinese companies have agreed to form a joint venture with the aim to realize a full-scale commercial cellulosic ethanol production plant in Fuyang, China, which will have a 50 000 ton capacity with an option to double this output in a second phase. The cellulosic ethanol produced will be utilized in the Chinese regional fuels market as a gasoline additive to fulfill the national blending mandate.

FAMAX® 200 DS – a next-generation formaldehyde catalyst

The iron-molybdenum catalyst allows producers to achieve considerably higher productivity and profitability with increased efficiency and selectivity compared to traditional silver-based production methods. The catalyst's hollow, cylindrical shape reduces pressure drop over the catalyst bed by 10 – 15 % compared to conventional catalysts. This special design gives producers the flexibility to reduce energy consumption when operating at the same plant capacity or to increase production capacity at the same energy costs.

The Business Line also signed a joint research agreement with ExxonMobil and REG Life Sciences, which was acquired by Genomatica over the course of the project. The research agreement evaluates the potential use of cellulosic sugars from sources such as agricultural waste and residues to produce biodiesel. The main objective of the collaboration is to combine processes into a seamless biomass-to-biodiesel technology. In 2019, different types of cellulosic feedstock were converted into sugars under different process conditions at the plant in Straubing, Germany. Genomatica then turned these sugars into high-quality, low-carbon biodiesel in laboratory and pilot experiments. In addition, Clariant will provide a conceptual engineering study for the biomass-to-sugars portion of the project.

At the pre-commercial plant in Straubing, Germany, Business Line Biofuels & Derivatives successfully tested the energy crop miscanthus as a feedstock for bioethanol production. INA, Croatia's leading oil and gas company, has chosen sunliquid® to assess usability of miscanthus for conversion into cellulosic sugars and ethanol within the EU-funded GRACE project. These tests constitute an important milestone for upscaling sunliquid®, as they prove the flexibility of the technology platform regarding different lignocellulosic feedstock, including dedicated energy crops.

MARKET TO CUSTOMER

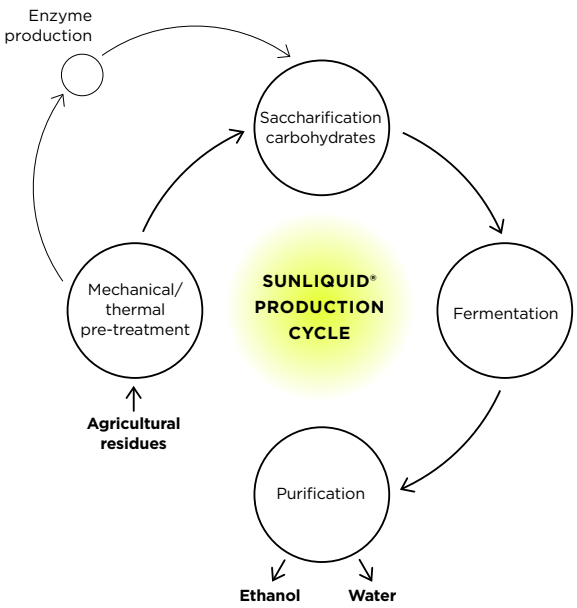
4. Creating value with innovative products and services

Another year of successful product launches for Business Unit Catalysts was experienced in 2019. The new propane dehydrogenation catalyst CATOFIN™ 311 further enhances selectivity and longevity of previous CATOFIN™ generations. Customers with typical plants could benefit from up to USD 20 million

Converting straw to biofuel with sunliquid®

sunliquid® is an innovative process to produce biofuels and biomaterials from agricultural residues. First, an agricultural residue, such as wheat straw, is treated with steam, followed by a subsequent sudden drop in pressure, which causes the straw to break down. Second, the straw remnants enter a series of reactors in which they are liquified through specific enzymes produced on-site. These enzymes break down the straw into simple sugars. Then, the sugars are fermented to create an ethanol-water mixture. In the last step, the ethanol is purified, so it can serve as biofuel or as a feedstock for biomaterials. The sunliquid® process is energy self-sufficient as it uses lignin, the insoluble part of the straw, obtained as residue in the biomass.

Clariant completed a report on the carbon footprint of sunliquid®, which revealed that the carbon intensity of ethanol produced with sunliquid® is up to six times lower compared to conventional fuels.



»Our mission is to develop and supply high-performing catalysts that create value for our partners and the planet.«

Stefan Heuser
Head of Business Unit Catalysts

in savings due to increased productivity over the lifetime of the catalyst. CATOFIN™ is a highly reliable and productive method for light paraffin dehydrogenation that operates at optimum reactor pressure and temperature, maximizing the conversion of propane to propylene, a starting product for the petrochemical industry and an important base chemical. Clariant further announced the successful start-up of the CATOFIN™ catalyst at Hengli Group's new dehydrogenation plant in Dalian, China. With a production capacity of over one million tons of olefins per year, this will become one of the world's largest plants using CATOFIN™ catalyst technology.

With OxyMax® PA 690, Clariant launched a next-generation phthalic anhydride catalyst that greatly increases yield and provides excellent product quality. The catalyst is produced using Clariant's proprietary fluid-bed coating technology, in which ceramic rings are coated with a thin shell of catalytically active materials and special promoters. This enhances mass and heat transport and reduces over-oxidation as well as formation of unwanted by-products such as carbon oxides and maleic anhydride. The OxyMax® PA 600 catalyst series has been granted two patent families due to its unique composition and formulation. The catalysts offer great flexibility as they can be tailored to individual operating and feedstock conditions.

Another example of Clariant's value-creating approach is StyroMax™ UL3. The catalyst achieves high activity and selectivity in styrene monomer production and requires less steam and associated energy consumption due to very low steam-to-oil operating conditions. Its high activity increases styrene monomer yields, while its improved selectivity minimizes the formation of by-products, such as toluene and benzene, which are typically less valuable than styrene monomer. As with most of its products and applications, Business Unit Catalysts provides engineering support with StyroMax™ UL3. The offering includes start-up services, subsequent assistance to maintain optimum operation performance, and, if required, on-site troubleshooting services. → PAGE 94

5. Strengthening customer support and increasing presence

Proximity to customers is paramount. To enhance its presence in the Asia-Pacific region, Business Unit Catalysts inaugurated its third Engineering Services office in the region to complement the offices in Singapore and Tokyo. Located near Jakarta, Indonesia, the new office focuses on technical support for ethylene, styrene, and syngas production, as well as fuel upgrading, hydrogenation, and oxidation. The office is based at Clariant's Tangerang site and relies on close collaboration with regional colleagues. Customers profit from Clariant's reduced response time and increased ability to work more closely on their challenges.

In 2019, Business Line Biofuels & Derivatives enhanced proximity to customers by establishing and extending its footprint, with team members now also based in Shanghai, China; Mumbai, India; and Jakarta, Indonesia. With a dedicated team in Romania, the Business Line offers customer support for feedstock value chain operations regarding feedstock availability and assessment, value chain contract systems, and complete value chain analyses, covering everything from baling to storage. As sunliquid® can be used with different feedstock materials, these services are crucial to carry out new, successful projects.

Business Line Biofuels & Derivatives also continued relationship-building with political stakeholders and active engagement in biofuel industry associations such as ePURE and Leaders of Sustainable Biofuels (LSB). The latter is a coalition Clariant has chaired since June 2019.

CUSTOMER TO CASH

6. Improving supply chain management

In 2019, Business Unit Catalysts made progress in streamlining supply chain handling and institutionalizing Clariant's end-to-end supply chain management dashboard. Business Line Biofuels & Derivatives has taken important measures for the successful implementation and execution of its supply chain at the sunliquid® plant in Romania. The dedicated feedstock team established long-term contracts with more than 200 farmers so far to ensure stable and reliable straw supply for the operational phase of the plant. In 2019, over 20 000 tons of straw were harvested in order to test and adjust supply chain performance. The trials were centered on efficient straw collection, transportation, and storage. The ramp-up of the supply chain will continue to work toward more than 250 000 tons for full-scale plant capacity. As of 2019, Biofuels & Derivatives features a digital application that supports supply chain operations with regard to coordinating, managing, and monitoring straw harvest operations. In addition, network systems for straw storage and just-in-time delivery were implemented.

7. Assuring safe and sustainable operations

In its production plant in Romania, Business Line Biofuels & Derivatives built up the country and site organizations for the management of Occupational Health, Safety, and Well-being. An Environmental Safety and Health Affairs (ESHA) manager was hired and intensively trained at Clariant's sites in Straubing, Pratteln, Sulzbach, and Frankfurt. The training supported the implementation of Clariant's guidelines in the newly founded organization and turned Clariant's safety culture into an industry standard in Romania. In the pre-commercial plant in Straubing, Germany, around 30 safety trainings have been performed, led by either Clariant personnel or third parties, including trainings for explosion protection, pressurized vessels, and fire extinguishing.

In 2019, Business Unit Catalysts was able to significantly improve operations in Panjin, China. As part of the extension of catalysts production capacities for maleic anhydride applications, operational processes were improved. In addition, water consumption and wastewater generation continued to decline, compared to 2013.

Targets

6 – 9 %
Growth potential per year

26 – 30 %
EBITDA target margin

Performance

INPUT

6.4 %
R&D spend of sales

272
Raw material procured in CHF m

> 100
Active innovation projects

14
Production sites (50:50 or minority joint ventures not included)

1174
Number of raw materials procured

OUTPUT

925
Sales in CHF m

9 %
Growth in local currencies

22.9 %
EBITDA margin after exceptional items

0.06[1]
Production volume in m t

People

INPUT

29 721
Training hours

538
Raw material suppliers

OUTPUT

2 113
Staff in FTE at year-end (2018: 2 061)

Planet

INPUT

609.9[2]
Energy consumption in m kWh

OUTPUT

15.5[2]
Waste in thousand t

2 746[2]
Greenhouse gas emissions in kg/t production

Financial capital · Intellectual capital · Manufactured capital · Human capital · Relationship capital · Natural capital

[1] For 2019, the production volume is based on a reduced reporting scope, which includes sites that are responsible for 95 % of total production.

[2] Every three years, Clariant validates environmental data from all production sites. The last full reporting campaign was in 2017. In the interim years, including 2019, the reduced reporting scope comprises the larger sites responsible for 95 % of production.



Be a Local Partner

+ **Customer Relationships**

Service succeeds

How a specialist team of engineers at Clariant's Business Unit Catalysts provides game-changing technical service all across mainland China.

Contribution to SDGs

This story is an example of Clariant's contribution to SDG 9 and SDG 12.

Read more on → PAGE 24



When Donny Yuan joined Clariant in 2015, he had already spent more than twelve years working in different petrochemical productions, mostly for styrene producers, including some of the biggest names in China. But even though catalytic dehydrogenation is at the heart of this type of industrial chemistry, Yuan still had a lot to learn about catalysts themselves. »So when Clariant hired me to provide technical service for their entire range of catalysts, I delved deep into Catalysts' technology,« Yuan says.

Fast forward five years and Yuan now heads Clariant's regional Catalysts Engineering Services in China, a team of ten technical engineers spread over four locations across mainland China. Donny Yuan himself sits in Shanghai. Although, as he explains, he spends most of his time neither sitting nor in Shanghai. »About 60 % of my work involves meeting customers, checking in on sites, and troubleshooting production issues out in the field.« His business trips take him all around China. The sheer size of the country means that visiting one such business can easily involve a five-hour flight followed by another couple of hours on trains or in the car. »Petrochemical production centers are often located far away from major cities. And we've had cases where some of our guys have stayed at a customer site for more than a month,« Yuan says. But to him and everyone on his team, going the extra mile is part of Clariant's approach to providing its technical service.

Clariant's Business Unit Catalysts operates globally but stresses its regional focus. Close to 1 800 people worldwide work for the Business Unit. It runs a total of 14 production sites, 20 sales offices, and just as many offices for Engineering Services around the world. Proximity matters. »Each region has very different needs,« says Roger Long, Clariant's Regional Marketing Manager for Catalysts in China and Asia-Pacific. Take feedstocks, for instance. While chemical production in Europe and the Middle East relies mostly on natural gas or petroleum, and the USA are heavy on shale gas, most of China's producers use derivatives from coal. »The applications are similar, but the processes are totally different,« Long explains. »So our Engineering Service here in China deals with catalysts that are tailor-made specifically for this type of feedstock.«



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001 Donny Yuan
Head of Engineering Services China, Business Unit Catalysts

002 Creating value
Plants using Clariant's CATOFIN™ process prove reliable and efficient.



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»You really get to know and understand how your customers operate.«

Donny Yuan
Head of Engineering Services China, Business Unit Catalysts

Service helps seal the deal

Yuan and his team of technical engineers serve more than 100 current customers at any given time. Additionally, they are called upon whenever their expertise is needed elsewhere in the world. They themselves can rely on the rest of the global network for backup too. Engineers like Yuan are involved early on in any commercial bidding. »We attend all the initial technical meetings with the customer and, for example, help select the right catalyst for their needs,« Yuan explains. More often than not, these technical discussions are actually what helps seal the deal. Yuan, his fellow engineers, and the service they provide over the entire lifetime of a catalyst are an essential part of the product offering.

Catalysts are crucial to almost every chemical production. By reducing the energy required for a certain reaction or helping to achieve higher yields with fewer by-products, catalysts are a key to both productivity and efficiency. In fact, many of the reactions used industrially today would be either uneconomical or physically impossible without specialized catalysts. »For producers, getting the optimal performance out of a catalyst can have a massive impact on their bottom line,« says Long. »Still, not too many companies provide our level of service. We are one of the few catalyst providers among our peers to have as many as four Engineering Service offices in mainland China. And today, we are the only one with such an office in Yinchuan in the Northwest, the very heart of China's coal-to-chemicals industry.«

Whenever Clariant wins a commercial bidding, that's usually when Yuan and his team really jump into action. »Loading the reactor and starting the process is the most crucial phase for any catalytic process,« Yuan explains. His team advises and trains the production crew on how to first get the catalyst into the reactor.

New offices

Help is just around the corner

A new Engineering Services office in Jakarta, Indonesia, brings Clariant's Business Unit Catalysts even closer to its regional customers.

In the second half of 2019, Clariant's Business Unit Catalysts opened a brand-new office for engineering services in Indonesia. It follows on the heels of similar new offices in Singapore and Japan, bringing the total to 20 worldwide. The expansion is aimed at enhancing regional support, particularly in southern countries of Asia-Pacific. Technical services here has a strong focus on catalysts for ethylene and styrene as well as syngas applications, distillate upgrading, hydrogenation, and oxidation. Inaugurated in September, the new Indonesian office is based at Clariant's site in Tangerang, near the capital Jakarta. Clariant already operates a joint-venture catalyst production facility near Jakarta, in Cikampek. The catalyst specialists appointed for the new service office will work closely with their regional colleagues.

Some of that happens in an actual classroom setting, and some of it on the job. »Customers will arrange for field operators, production crew management, and engineers to take part in these training courses,« says Yuan. »Even the engineers, who are absolute experts in their field, can't always know how they need to handle our product and why.« That is why Clariant provides a manual on how to load and use its catalysts and has developed a patented loading system together with the necessary equipment.

»Getting the distribution right and making sure the catalyst isn't damaged determines how efficiently you'll be able to run your production for the next couple of years,« Yuan explains. For example, Clariant puts a lot of effort into maximizing the performance of its catalysts, not least by producing them in specific shapes such as pellets, tables, or extrusions that optimize the available catalytic geometric surface area (GSA). For certain kinds of catalysts, dropping these from the top of a tall reactor would wreak havoc on those surfaces. »That's why we make sure the catalyst is loaded layer by layer and its integrity is protected at all times,« says Yuan. The whole start-up process can take up to three weeks depending on the application.

What process data reveals

Once production is up and running, Yuan and his team transition into operational support and ongoing performance evaluation. They visit key customer sites every few months but call each and every customer at least once a month to talk shop. Using specialized analytic programs, they review the data provided by the customers, which allows them to draw conclusions about how the catalyst is performing and whether the whole setup is working within the parameters the customer prescribed.

Yuan remembers one incident where a customer notified him about a sudden drop in performance, or rather a growing disparity between input and product yield. He and his team immediately got to work analyzing the latest data. »We used heat balance and material balance calculations and were eventually able to pinpoint that there had to be a mechanical failure, a leak in hydrocarbon supply,« Yuan remembers. In other words, the customer was losing input but, as the data showed, not in the process itself. The customer chose to wait for scheduled maintenance and to proceed with production. »We helped him optimize the feed and process parameters for the changed conditions. That way, we could ensure the stability of the plant operation and also secure the service life of the catalyst,« Yuan says. »In the end, it saved our customer at least another 10 % in capacity.« When the customer eventually stopped production and went in to check, sure enough, they found the leak that Clariant's team had suspected.



When troubleshooting catalytic processes, time is of the essence. Unforeseen changes in the feed or even a complete stop in production can do irreversible damage to the catalyst unless the operators take protective measures. »For some processes, if the feed or the steam cut out, you need to move quickly and protect the catalyst from water or air,« Yuan explains. »Otherwise, you risk poisoning your catalyst within a matter of hours.«

A business like no other

Yuan, like many in the industry, talks of catalysts as if they were living, breathing things. That comes with the trade: Catalysts can be fickle. Treating them right helps them excel at their job, while neglecting them can shorten their lifespan. They can be »poisoned« and »die.« That is not the only way in which the catalyst business differs from others that deal in commodities or raw materials.

»A typical catalyst stays in service for two or three years, but there are a lot that run for five to six, some even for ten and up to 15 years,« Yuan explains. Clariant guarantees technical support throughout the entire service life of a catalyst. »Those are very long-standing customer relationships built both on trust and experience,« Yuan says. He has worked with some of his counterparts on the customer side for years. »You really get to know and understand how they operate. That allows us to anticipate what they might need, and having worked together for such a long time also helps you get to the point very fast.«

Each phase of a catalyst's service life has its own set of rules. Towards the end of its life, for example, a catalyst will usually achieve lower yields but will run especially stable. »That is if you run it correctly,« says Yuan. »But in some very competitive markets, for example, companies might be pushed to run the plant very hard: They change their schedules a lot, or run an aging catalyst at a higher feed while business is good,« says Yuan. That's when he gets 3 AM phone calls, saying: »You need to come in right away!«

Having the necessary know-how to deal with many different emergency scenarios, the commitment to maintaining optimal performance over the entire service life, and the manpower to do all that for every customer anywhere in China – those are some of the attributes that make Clariant's work exceptional. But an important factor is not just what Yuan and his fellow engineers do at Clariant but also what they did before. Every one of them has at least five years of experience working in chemical production. »They can talk to customers in their language,« says Yuan. And it shows. »When I was in production and dealt with catalyst suppliers, they would go on and on about their product. We don't do that. We talk about the process and what the customer needs. We understand what they're dealing with and help them achieve what they're trying to do.«

Pleased customer

»Fast, smooth, and successful«

Clariant helped its customer Chinese Hengli Group to initiate its latest groundbreaking production.

Some major start-ups of catalytic productions make headlines in the industry. Like when, in the summer of 2019, Clariant announced the successful start-up of its CATOFIN™ catalyst for the Hengli Group, one of China's largest petrochemical suppliers. Their new mixed-feed dehydrogenation plant in Dalian is designed to process 500 000 annual tons of propane and 800 000 annual tons of isobutane to produce over a million tons of propylene and isobutylene. That makes it the world's largest plant to use Clariant's CATOFIN™ catalyst technology and a major milestone for the industry. »We are very proud of our achievements with respect to this groundbreaking project,« says Guangqin Peng, Chief Engineer of Hengli Petrochemical (Dalian) Refinery Co Ltd. »The fast, smooth, and successful start-up of this unit would not have been possible without reliable and experienced partners like Clariant.«



Crucial delivery
Processes for the chemical industry revolve around catalysts. In some cases, that means they need to be lifted into reactors at the heart of production facilities.

How Natural Resources Creates Value

Business Area Natural Resources, which comprises the Business Units Oil and Mining Services, Functional Minerals, and Additives, offers high-performing solutions for mineral, oil, and gas extraction businesses, as well as for plastics, coatings, and inks applications. Driven by growing consumption of oil, metals, and food, and increased electrification around the globe, the Business Area addresses challenges in multiple industries while also capturing emerging trends.

1. Capturing positive market dynamics to drive business growth

In 2019, Business Unit Functional Minerals benefited from increased edible oil use in emerging countries, changing food consumption patterns, and stricter food quality standards. These developments provided growth opportunities for purification products and increased demand for Clariant's products that bleach edible oil and reduce concentrations of harmful substances in end products.

The global automotive industry is undergoing significant changes, with increasing pressure to reduce emissions in foundries and to decrease fossil energy consumption for transportation. This trend supported Clariant's sales of low-emission foundry additives and increased demand for specialty adsorbents based on second-generation biofuels made from agricultural residues and other waste.

Business Unit Oil and Mining Services improves efficiencies in aging mines, thereby increasing the demand for solutions such a such FLOTIGAM™ 7100, HOSTAFLOT™ 7257, and MONTANOL™ 800. Despite the slowdown of Chinese mining activities and reduced chemical expenditure, Clariant registered increased demand for its high-quality products that improve efficiency. Business Unit Oil and Mining Services also captured the trend of rising demand for solutions that ensure production efficiency with oil and refinery customers.

Sustainability prevails being the main transformation for the portfolio of Business Unit Additives in 2019. For example, Clariant's wood-coating solutions, such as Ceridust® 8090 Vita, a surface modifier based on renewable raw materials, have become more popular as the use of wood in the building sector has increased. Clariant's portfolio of sustainable and safe solutions for the electrics and electronics industry, including Exolit® flame retardants and Nylostab® S-EED®, is sought after as the age of digitalization generates further demand for materials that support new electrification, electronic equipment, and smart devices.

Electromobility provides new business opportunities

Electromobility is expected to reduce carbon emissions from road transportation. This presents opportunities for Clariant's nonhalogenated flame retardants as electric vehicles have their specific material and safety requirements. Because of the high energy content of the battery and the high voltages and currents employed, not only flammability is a risk but also electrical arcing, which can in turn lead to a fire. Being phosphorus-based and halogen-free, choosing Exolit® OP as a flame retardant is not only a safer and an environmentally superior option compared to legacy brominated flame retardants, but it also helps reduce the weight of automotive parts as well. Exolit® OP continues to deliver the same high-level fire protection throughout many recycling and reuse cycles, and provides manufacturers with a genuine alternative to the use of new material.

IDEA TO MARKET

2. Innovating for sustainability and increased efficiency

In 2019, Business Unit Functional Minerals addressed circular economy concerns by enhancing its mineral-based performance dewatering system Invoque®. Invoque® improves liquid-solid separation for operational processes, tailing circuits, and reprocessing in mines. This enables the mining industry to decrease costs, increase yield, and reduce water usage and dependency on tailing dams. Clariant also focused on the development of Tonsil® grades for the edible oil industry, which remove harmful substances and reduce the risk of their formation, thereby increasing food safety.

Additionally, Low Emissions (LE+) products in the Ecosil™ and Geko® LE+ range were optimized for the foundry industry. Development projects focused on preventing the creation of volatile organic compounds (VOCs), allowing customers to reduce harmful emissions and overall costs while increasing quality. A substantial amount of development effort was also spent on second-generation green diesel to supply high-performing adsorbents and provide superior technical support.

With regard to digitalization, Clariant's Electronic Lab Notebook and Laboratory Information Management System improved the use of data analytics to customize products in an economically viable way. For example, data on variations of bentonite revealed unknown correlations for potential customer applications and helped Clariant fulfill specific customer needs faster and more economically. → PAGE 143

Business Unit Oil and Mining Services invested in several innovation activities to enhance infrastructure and supply security in new regions across Asia, Africa, and the Americas. In North America, Clariant Oil Services opened a High-Throughput Experimentation (HTE) laboratory in Houston, Texas, a first for the Oil and Gas industry. The HTE laboratory is a fast-response unit for application, discovery, and development of optimized formulations for customers. → PAGE 142

Making Additives fit for re- and upcycling

The Fraunhofer Institute confirmed that Clariant's Exolit® OP 1400 flame retardant fully supports the demanding recycling conditions for PA6 and PA66 engineering plastics used in the transportation and electronics industries.

001 **NATURAL RESOURCES**

OVERVIEW

The Business Area Natural Resources is comprised of Functional Minerals, Oil and Mining Services, and Additives. Functional Minerals operates a fully integrated value chain, from the exploration and mining of bentonites to the processing of finished products to the application of technical know-how at the customer's operations. Oil and Mining Services provides innovative chemistry, technology, and service solutions for the oil, mining, and refinery industries. Additives serves markets for plastics, coatings, inks, and consumer applications ranging across transportation, packaging, electrical and electronics, consumer goods, medical, textile, building and construction, as well as agriculture industries.

APPLICATIONS

Business Unit Functional Minerals

- Oil purification
- Foundry additives
- Cargo and device protection
- Filtration and separation solutions
- Civil engineering
- Wastewater treatment
- Clay specialties
- Paper additives
- Detergent additives
- PVC stabilizers
- BTX catalysts
- Kerosene and jet fuel purification

Business Unit Oil and Mining Services

- Pour point depressants
- Cold flow improvers
- Froth flotation chemistries
- Chemical delivery and data management systems
- Integrity management
- Fluid separation
- Flow assurance

Business Unit Additives

- Antifouling agents
- Antistatic agents
- Acid scavengers
- Antioxidants
- Heat stabilizers
- Light stabilizers
- Processing stabilizers
- Lubricants
- Processing aids
- Release agents
- Slip control agents
- Surface modifiers
- Surfactants
- Halogen-free flame retardants

PRIORITY SDGs

- SDG 2 Zero Hunger
- SDG 3 Good Health and Well-being; SDG 12 Responsible Consumption and Production
- SDG 7 Affordable and Clean Energy; SDG 13 Climate Action

MARKET TO CUSTOMER

3. Addressing customer needs with new products and solutions

In 2019, Clariant brought to market a number of products that combine innovation and sustainability. The mineral filler Opazil™ controls migration of mineral-oil-based impurities present in recycled paper pulp and thus enables producers to safely use recycled paper and cardboard fiber for food packaging.

The Humitector® Type 2 Humidity Indicator Card was launched to provide a fully compliant, yet more environmentally friendly, non-reversible humidity indicator for electronic components. The indicator is used in dry pack environments for moisture sensitive products such as surface mount devices (SMD), and is halogen- and cobalt dichloride-free.

Business Unit Oil and Mining Services introduced WAXTREAT™ SubZero Pour Point Depressant technology for cold climate regions. The innovative product received the EcoTain® label and helps oil production customers increase operational efficiency by improving the flow properties of oils while mitigating paraffin buildup in crude oil pipeline systems.

Additionally, the Business Unit has invested in expanding the application field beyond iron ore flotation to leverage mining expertise into dewatering, filtering, and tailings treatment, following environmental pressure on mining companies to grow flotation operations.

Business Unit Oil and Mining Services also expanded its overall services to customers by implementing the hardware and software application VERITRAX™ 3.0 SAP across North America. The improved digital chemical management system eases communication between Clariant and oil producers with real-time information on the entire chemical management process, thereby increasing efficiency.

To enable recycling in combination with low resource consumption as the basis of a circular economy, Business Unit Additives, for example, developed AddWorks® PKG 906 Circle. A proprietary recycling aid, which enables manufacturers of polyolefin film, such as food packaging film, to incorporate recycled content by up to 30 % without loss in quality and while improving process efficiency.

Business Unit Oil and Mining Services has expanded infrastructure in new regions such as Western and Sub-Saharan Africa, enabling copper, gold, and oil development activities. This supports the oil and mining industries in Algeria, Angola, Mozambique, South Africa, and Zambia.

Business Unit Additives focused on translating sustainability and performance requirements into innovative solutions for customers. In particular, Clariant is enhancing the circularity of plastics by developing additives that improve recyclability. Furthermore, solutions using renewable, bio-based additives to boost resource efficiency are being developed. For example, bio-based additives derived from rice bran wax, a non-food-competing by-product of rice bran oil production, support high performance processing and enhance surface properties of plastics and coatings. Another example are the new Licocene® solutions used in adhesion applications to bond or de-bond challenging materials.

A safer, better alternative to Xanthates

HOSTAFLOT™ 7257 and HOSTAFLOT™ 7800 allow operators in mining to discontinue the use of sodium isopropyl xanthate and potassium amyl xanthate. Xanthate is a hazardous material typically used in sulfide flotation that is liable to spontaneous combustion and produces decomposition products that are toxic for humans and the environment. In the form of a copper flotation and disposal solution, Clariant developed alternatives that enable safer handling and disposal solutions for mines, lower capital expenditure, and a longer shelf life than solid xanthate.

»Customers are at the heart of what we do. We take individual input very seriously and come up with customized solutions.«

Sven Schultheis
Head of Business Unit Functional Minerals

Clariant teamed up with renewable hydrocarbon producer Neste to offer a wide range of additives based on mass balance-certified ethylene and propylene from renewable feedstock. These additives include the adhesives and plastic additives Licocene® Terra and the flame retardants Exolit® OP Terra. Other new products brought to market include rice bran wax-based Licocare® RBW Vita, a renewable processing aid for formulators of engineering plastic and bioplastic compounds. Terra, Vita, and Circle represent three of four sustainability designators that Clariant introduced in 2019. → **PAGE 184**

Sustainability efforts are also exemplified by the fast development of EcoTain®-labeled products, which made up a significant percentage of sales volume in Business Unit Additives in 2019. Clariant is committed to further grow the share of EcoTain®-labelled products through innovation and strategic partnerships. → **PAGE 149**

4. Strengthening customer centricity

Customer centricity is an integral part of the strategic objectives of the Business Units Functional Minerals and Oil and Mining Services, and customer-oriented targets are a key element of the leadership performance objectives. In 2019, Business Unit Additives further strengthened customer centricity by refining the customer segmentation and undertaking a Value-to-Customer (V2C) initiative. With need-based segmentation, Clariant better addresses customer requirements and creates the basis for systematic value-based pricing and selling. In addition, it allows careful matching between Clariant's technical expertise and portfolio with selective growth opportunities.

In 2019, Business Unit Additives carried out two marketing excellence projects in China to accelerate business development in new market areas and better respond to customer needs. It also began collaborating with key brand owners to advance sustainability and performance. Together with Neste, Clariant started to develop state-of-the-art solutions based on renewable olefins from used cooking oils and other waste oils. Other industries such as electronics were also proactively approached with ideas on applying new technologies and solutions that benefit the entire value chain.

Increased interactions with customers and regular feedback amplifies Clariant's focus on customers. The 2018 customer satisfaction survey underscored the importance of »Technical Services,« which was rated as the second most important buying criterion, right after »Products and Packaging« in the Business Unit Additives.

CUSTOMER TO CASH

5. Increasing global capabilities

In 2019, Business Unit Functional Minerals continued to debottleneck its production in Spain, Germany, Mexico, and Indonesia to improve efficiency and flexibility. Business Unit Oil and Mining Services successfully opened a state-of-the-art laboratory in South Africa as a regional hub for mining operators in 2019. In addition, Clariant entered a partnership with ChemQuest in South Africa, which is now a distributor of Clariant products for mining operations, to increase metallurgical efficiencies and provide tailored chemical solutions to the mining sector. In Bojone-

goro, Indonesia, Clariant inaugurated a new supply base for regional oil production customers. The investment demonstrates Clariant's customer focus and will enhance accessibility of products and services for major customers in the region.

In line with the goal of becoming an industry leader in China, Business Unit Additives achieved full operational capacity of its new Zhenjiang, China, plant for the production of AddWorks® and Ceridust® products. In addition, the project to expand capacity for Licocene® production in Germany and the plan for a new light stabilizer plant in Cangzhou, China, were advanced.

6. Emphasizing the importance of health and safety

In 2019, Clariant emphasized safety awareness, the identification of workplace hazards, and improved flow of communication. Functional Minerals rolled out its Environmental Safety and Health Affairs (ESHA) strategy to enhance its safety performance. The strategy is based on continuous improvement of its safety culture, systematic identification, evaluation, and elimination of risks, and reasonable and sustainable use of natural resources. The rollout included the reinforcement of the safety policy across all levels, leader's safety awareness trainings, and the development and implementation of safety concepts for the specific risks on the site level.

24 years without a lost time accident

Clariant's Mining site Lara in Australia celebrated its 24th year without a lost time accident (LTA). This accomplishment gave the Lara site the record among Clariant's entire worldwide network for the longest LTA-free period.

Business Unit Oil and Mining Services concentrated its health and safety improvement activities mainly on the North American region. Among other initiatives, the Business Unit implemented SmartDrive, a video-assisted safety program that helps truck drivers prevent accidents. → PAGE 170

Business Unit Additives focused on stringent safety in all plants by intensifying its awareness program with trainings, safety checks, and accident-avoidance projects.

7. Achieving environmental protection in operations

In 2019, Clariant focused on optimizing its environmental footprint and further investigated how to support customers and the chemical industry overall to overcome potential waste and emissions issues along the entire value chain.

Business Unit Functional Minerals achieved emission reductions thanks to leveraging its dense network of production sites. With shorter transport distances and more reliable supply chains, Functional Minerals is closer to its customers now. Moreover, it increased the Sardinian sun-drying operation of bentonite. By using solar energy to dry bentonite, it can be transported with a significantly lower percentage of liquid, thereby reducing weight, costs, and environmental impact. Additionally, the sun drying method allows to keep higher proportions of the active product than any other heating process.

To assess the environmental performance in the supply chain, Business Unit Oil and Mining Services uses individualized review processes for suppliers. Active supplier communication and regular interactions help Clariant raise awareness on sustainability requirements.

Business Unit Additives began transitioning the production plant in Knapsack, Germany, entirely to renewable energy in 2019. This plant also achieved a significant reduction in water and energy consumption while simultaneously increasing capacity. Production processes and workflows are constantly reviewed and optimized for improved environmental performance.

Targets

5 – 7 %
Growth potential per year

18 – 20 %
EBITDA target margin

Performance

INPUT

2.0 %
R&D spend of sales

629
Raw material procured in CHF m

> 145
Active innovation projects

39
Production sites

3 697
Number of raw materials procured

OUTPUT

1 874
Sales in CHF m

4 %
Growth in local currencies

16.3 %
EBITDA margin after exceptional items

2.97[1]
Production volume in m t

People

INPUT

47 993
Training hours

1 776
Raw material suppliers

OUTPUT

3 948
Staff in FTE at year-end
(2018: 3 276; excl. Business Unit Additives)

Planet

INPUT

1 033.3[2]
Energy consumption in m kWh

OUTPUT

134.8[2]
Waste in thousand t

107[2]
Greenhouse gas emissions in kg/t production

Financial capital · Intellectual capital · Manufactured capital · Human capital · Relationship capital · Natural capital

[1] For 2019, the production volume is based on a reduced reporting scope, which includes sites that are responsible for 95 % of total production.

[2] Every three years, Clariant validates environmental data from all production sites. The last full reporting campaign was in 2017. In the interim years, including 2019, the reduced reporting scope comprises the larger sites responsible for 95 % of production.



Help Cities Move Forward

+ **Environmental Protection and Resources**

Natural clay for Paris Metro

By 2030, the Grand Paris Express will bring sustainable mobility and a new quality of life to the French metropolis. Clariant is doing its part to make it a reality.

Contribution to SDGs

This story is an example of Clariant's contribution to SDG 9 and SDG 12.

Read more on → PAGE 24

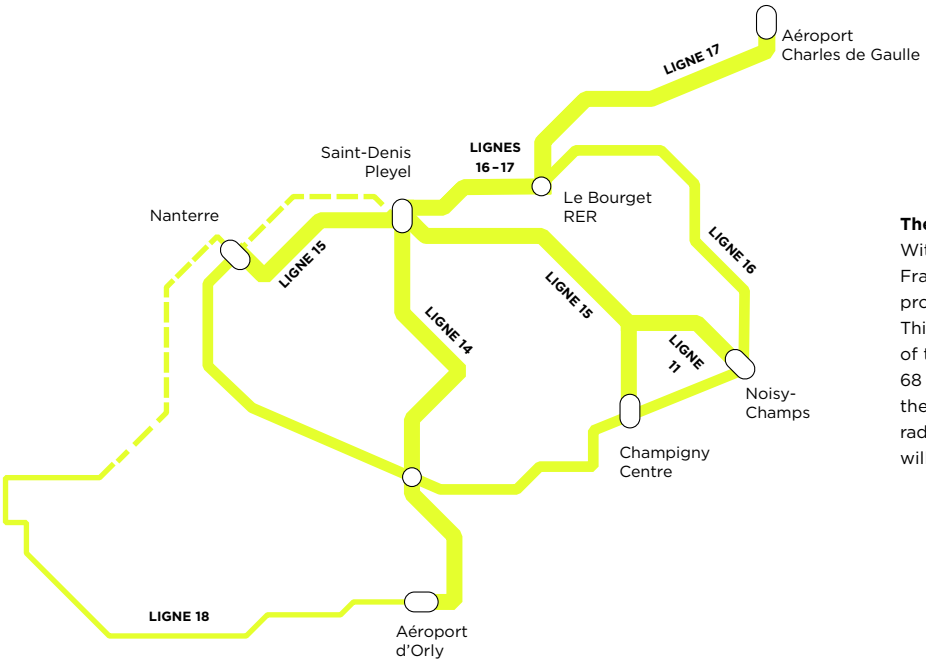


It has been called a parallel city underground and »as deeply embedded in the French psyche as it is in the limestone and gypsum of Paris itself«: the Paris Metro. With its Art Nouveau entrances, this 120-year-old subway system is a postcard icon of the French capital. But unlike other icons, say the Eiffel Tower or the Arc de Triomphe, this one is extremely useful to the roughly two million residents of Paris. And come 2030, it will serve even more people, as it turns into one of the largest and arguably most modern metro networks in Europe. The Paris Metro gets a long-overdue update – with a little help from Clariant and a natural clay that is mined not far from the city.

With its 245 stations within the historic center, the Paris Metro is one of the densest metro systems in the world today. But its layout has not kept up with the growth and sprawl of more than a century. Not even one in five of the metropolitan region's residents lives in the city's core itself – a lower ratio than in most of Europe's large capitals. The historic cores of Berlin, Rome, and Madrid all house more than half of their respective metropolitan populations. In London, it is close to a quarter. La Défense, one of the largest business districts of Paris, and indeed Europe, lies outside the well-connected center, as do some of the city's universities and most of the region's public housing.

Connecting millions more

To remedy this, Paris is expanding its metro system with what it calls the »Grand Paris Express« – a new automated transit network for the entire capital region. It will add four new lines, a total of 68 interconnected stations, and about 200 kilometers of additional tracks – 90 % of which will run underground. Grand Paris Express will add a ring route around Paris as well as new lines and line extensions going outward to connect a host of developing neighborhoods, business districts, and research clusters as well as three of the city's airports. This will in some cases cut travel times to less than a third, hopefully relieving congestion and reducing motor traffic overall. According to some estimates, Grand Paris Express will help save up to 27.6 million tons of CO_2 emissions by 2050. Once completed, the fully automated system will transport two million additional commuters per day, with some lines running every 85 seconds. It's no wonder why Grand Paris Express has been called »the most ambitious new subway project in the Western world.« And as if that weren't



Source: Société du Grand Paris
(www.societedugrandparis.fr/gpe/carte)

The largest transport project in Europe
With an eye on the Olympic Games in 2024, France has launched a massive infrastructure project, known as the Grand Paris Express. This ambitious project aims to double the size of the existing metro system by adding 68 new stations and 200 km of new track. Unlike the existing metro, which generally runs radially from the centre of Paris, the new lines will mostly form a loop around the city.

enough, France's regional commuter system Réseau Express Régional (RER) is simultaneously tunneling its own new express link, called Est Ouest Liaison Express, or EOLE, right through the heart of Paris.

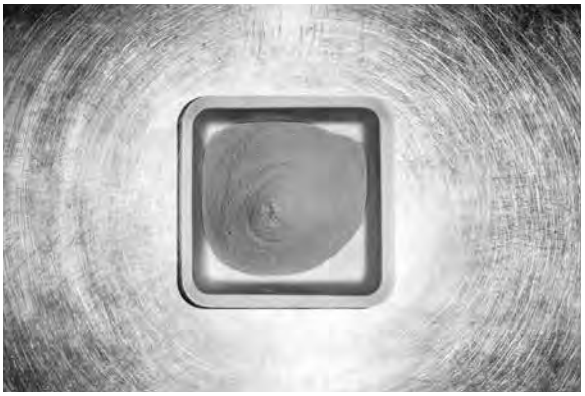
»There is a lot of digging going on,« says Laurent Nicolas, Head of the Civil Engineering group for Clariant's Business Unit Functional Minerals. »Grand Paris Express alone will involve removing a volume of soil equivalent to eight times that of the Great Pyramid of Giza.« And it's not just digging the tunnels, which run at an average depth of around 30 meters. Boreholes for safety access and ventilation shafts go down to around 80 meters, as do the excavations for some of the almost stadium-sized stations.

Clariant's Business Unit Functional Minerals and the team around Laurent Nicolas play a supporting role in these excavations – quite literally. When building any of the underground structures, construction companies first establish so-called diaphragm walls. That involves drilling deep rectangular trenches with the help of drilling fluids around the area that needs to be excavated. These trenches are then filled with reinforced concrete, essentially creating a submerged concrete box, which can then be emptied out to house anything from a stairwell to an entire multi-level metro station.

It's for drilling these trenches that Clariant delivers an essential ingredient: bentonite. The naturally occurring clay forms over eons when volcanic ash is trapped underground and chemically altered under immense heat and pressure. Clariant's Business Unit Functional Minerals is one of the world's leading bentonite providers. Every year the company mines close to two million tons of raw clay at its 25 sites in 14 countries all over the world. Clariant is especially committed to sustainable mining practices and takes great care when renaturalizing its bentonite mines, sometimes even achieving higher levels of biodiversity than before exploitation. Bentonite can be tailored for use in a whole range of industries and applications – from metal casting to paper production, and from packaging desiccant to edible oil refining. It even helps with purifying drinking water.

FRANCE





Remarkable material
Bentonite is a naturally occurring clay used in many different industries.

Acting as solid or liquid

In construction and other drilling applications, such as oil and gas production, bentonite is widely used to form drilling fluids, also known as drilling muds. When mixed with water, the bentonite powder swells and forms a slurry with extraordinary properties: Left still and unstirred, the slurry acts almost like a solid or a thick gel. But once it's moved with enough energy, it turns fluid again and is as easy to pump as chocolate milk through a straw. The technical term for this kind of behavior is thixotropy, and it is immensely useful. »There are basically two main things the drilling slurry does,« Nicolas explains. »It stabilizes the excavation and, depending on the digging technique, ensures an efficient removal of the excavated material, for example, by pumping it.«

To prevent their trenches from collapsing before they can be filled with concrete, the construction company keeps the borehole flooded with drilling slurry. »Otherwise, once you hit groundwater or loose ground conditions, the soil surrounding your borehole becomes so unstable that it would just collapse to fill the void,« Nicolas explains. Once the excavation has reached its targeted depth and the rebar cages are installed, the slurry is then replaced by simply filling the hole with concrete from the ground up.

However, getting the slurry just right for each and every borehole is a science in itself. »It all depends on the ground conditions,« says Nicolas. In order to avoid having to turn to polymer modifications, Clariant has mastered the art of gently coaxing ever more performance out of the natural and eco-friendly clay to fit almost any ground. »The deeper you go, the more complicated the geology can get, at least here in central Europe. And you can never be a 100 % certain what to expect.« Especially gypsum, which is particularly prevalent underneath Paris, can be tricky. »It can react chemically with the bentonite and degrade the properties of the slurry if you don't know what you're doing,« says Nicolas. That in turn can result in leakages and imperfections in the diaphragm walls, which spells trouble further on in the construction process.

Luckily, Nicolas and his team know how to handle almost any ground condition and adapt the use of bentonite to get the best results. A self-described »old warhorse,« Nicolas has been with Clariant for two and a half decades and has worked on some of the largest construction sites in the world. Nicolas also regularly gives workshops and helps write guidelines for industry bodies, such as the European Federation of Foundation Contractors (EFFC), on drilling techniques, support fluids, and the use of bentonite.

Still, Grand Paris Express is a one-of-a-kind project even to Nicolas. And not just because it's so vital to his home capital. »The scale of the project, the depth involved, the geology, the tight spaces in a metropolis, or the strict regulations – those are nothing new to us in and of themselves,« he says. »But with Grand Paris Express you have all these challenges coming together, which makes work on any of the more than 200 lots very complex.« And then there's the time frame. While the entire project is set to be completed in 2030, large sections of the new metro system will actually have to be running by 2024, when Paris hosts the Summer Olympics. »That is a challenge to everyone involved,« says Nicolas. However, helping drilling contractors deal with almost any challenge that mother nature or their customers might throw at them, is what Nicolas and his team do all the time.

LEFT Jérémy Prud'Homme
Technical Service Manager, Business Unit Functional Minerals

MIDDLE Laurent Nicolas
Head of Business Group Civil Engineering Europe, Business Unit Functional Minerals

RIGHT Jocelyn Ranc
Civil Engineering Product Manager, Business Unit Functional Minerals



Jérémy Prud'Homme is part of that team as a Technical Service Manager. »He is my eyes and ears on-site,« as Nicolas puts it. Prud'Homme checks in on several lots for Grand Paris Express almost every day. Like Nicolas, Prud'Homme has a background in material science and has worked as an engineer in the oil and gas industry. He is exactly half Nicolas' age. »Most of the civil engineers I talk to on the contractor's site are of my generation,« Prud'Homme says. »That helps to build a rapport.« However, unlike his contemporaries at construction or drilling companies, Prud'Homme doesn't spend months or even years working on just one site. He sees about a hundred project sites a year. This wealth of experience often helps him to identify problems and come up with a solution on the spot. If not, he gets Laurent Nicolas and the third man in their trio involved: Jocelyn Ranc. Ranc is as senior an expert as Nicolas. He is a chemist at Clariant's application lab in Portes-lès-Valence. »In the lab, we can recreate almost any ground condition in order to test and adapt the composition of a slurry,« Ranc explains. However, he not only keeps in close contact with both Prud'Homme and Nicolas but also personally visits construction sites on a regular basis. »Being that close to what you're dealing with helps a lot,« he says. »If a contractor runs into any issues, most of the time we can come up with and test a practical solution within a day or two.«


LEADERPRICE



Tight spaces
Large excavations, like the one at this construction site in Paris, rely on copious amounts of drilling slurry to stabilize trenches.

Jean-Michel Dumay can attest to that. He is a site superintendent for Soletanche Bachy, a global industry leader in foundations and soil technology. After 35 years of doing these kinds of jobs all over the world, he considers Grand Paris Express the highlight of his career: »I am sure that everyone who's worked on this will come out taller and proud of what we've accomplished,« he says. »Clariant will have earned its share of this success. Laurent is our advisor in choosing the right products, and Jérémy helps us implement them once they're delivered. The project would not have advanced the way it has without this close cooperation.«

A smaller ecological footprint

Proximity matters in other ways too. The bentonite used in Paris is mined and refined at two French Clariant sites. One is located just two hundred kilometers north of Paris, in the coastal town of Le Tréport. The other lies to the south, in Portes-lès-Valence, midway between Lyon and Avignon. Not having to ship the clay halfway around the world further improves its ecological footprint. That matters with Grand Paris Express. By design, the project will not only make the city's transportation system a lot more sustainable, it also contractually obliges each and every company involved to minimize their ecological impact. In order to reduce the number of trucks on the city's streets, for example, some of the required materials and as much excavated soil as possible is moved with barges on the River Seine or even pipelines. »Contractors also commit to reusing as much water, gravel, and sand as possible – preferably on-site,« says Nicolas.

Besides providing a level of technical service that, today, is exceptional in the industry, Clariant also delivers an especially effective product. »There are cheaper options on the market,« says Nicolas. »But using our highly tailored premium bentonite allows reducing the required amount by up to half. Additionally, the increased performance allows for a longer lifetime of the drilling fluids. That again translates to fewer trucks on the road and less space taken up on an already cramped construction site.«

Tunneling for EOLE

At the forefront of innovation

Clariant delivers bentonite for yet another groundbreaking Paris project in urban mobility.

While Grand Paris Express circles central Paris and extends lines outwards, another megaproject is tunneling its way right into the heart of the French capital. EOLE, or the Est Ouest Liaison Express, is a new commuter train project by SNCF Réseau, the infrastructure division of France's national railway company. EOLE connects, as the name suggests, communities to the east and west of Paris. It will add three new stations and eight kilometers of underground tracks to connect another 47 kilometers of modernized tracks to the existing line E. Parts of the tunnel, which is due to be finished as early as 2022, run underneath the eighth arrondissement and even just a few hundred meters away from the Arc de Triomphe. Upon completion in 2024, EOLE is expected to carry over 650 000 passengers every day. Clariant is once again involved as the key supplier for bentonite. In this case, however, the material is used as a support fluid for a new type of fully automated slurry shield boring machine. The consortium for the tunnel section (GC-TUN) is made up of Bouygues Travaux Publics, Eiffage Génie Civil, Eiffage Fondations, Razel-Bec, and Sefi-Intrafor. It uses a slurry shield tunneling machine that excavates the tunnel and installs concrete rings to make up the walls. This machine, measuring over eleven meters in diameter, uses a bentonite-based drilling slurry to stabilize the front face of the borehole and to pump the excavated soil to an impressive regeneration unit located on the surface. The soil is transported via a temporary pipeline from the construction site to the banks of the River Seine, from where it is then shipped away. The bentonite slurry is sent the other direction right up to the head of the boring machine. This reduces the number of truck movements by about 75 %. Over the course of the entire project, Clariant will have delivered several thousand tons of bentonite to help excavate a total of about 1.3 million tons of soil.

001 Proximity matters
Clariant mines and refines its bentonite for Grand Paris Express at two sites in France.

002 A new traffic artery
The longest stretch of the new tunnel for EOLE runs underneath the historic heart of Paris.



001



002

Discontinued Operations

Through continuous innovation, the Business Units Masterbatches and Pigments fulfill an increasing demand for sustainable products and contribute to the global transition to a circular economy. They engage in intensive dialog and collaboration with customers, which facilitate tailored solutions for specific customer needs. In addition, their ongoing efforts to optimize the supply chain ensure a reliable, steady supply of raw materials, supporting a high rate of On-Time, In-Full deliveries.

1. Divestment of Business Units Masterbatches and Pigments

In 2019, Clariant continued with the divestments of its Business Units Masterbatches and Pigments. The company has agreed to sell its Masterbatches business to PolyOne in December 2019. The divestment is expected to be closed by the third quarter of 2020. The divestment of the Business Unit Pigments is expected to be concluded by the end of 2020. → **PAGE 28**

2. Benefitting from the demand for sustainable and recyclable products

The plastics industry is undergoing a profound transformation. Environmental awareness of the persistence of plastics in the environment is rising, and corresponding regulations are becoming stricter. The European Union adopted new targets for plastics recycling, prescribing a gradual increase in recycling rates, which should reach 65 % by 2035. In addition, many brand owners have pledged to achieve high recycling rates for their packaging well before the required deadlines.

Business Units Masterbatches and Pigments address the persistence of plastics by promoting improved recyclability and increased usage of biomaterial. When designing a new product, they not only consider how to use recycled plastics, but also incorporate the ability to recycle the product as part of the original design. To underscore the commitment to advancing plastics recycling, the Business Unit Masterbatches is a member of the Plastics Recyclers Europe Association (PRE), an industry working group engaged in efforts to increase recycling rates.

001 **DISCONTINUED OPERATIONS**

OVERVIEW

The discontinued Business Units Masterbatches and Pigments serve markets ranging from packaging, electrical and electronics, consumer goods, medical, textile, transportation, building and construction, as well as agriculture. They deliver to local and regional customers as well as multinationals.

APPLICATIONS

Business Unit Masterbatches

— Packaging
— Consumer goods
— Fibers
— Healthcare polymer solutions
— Consumer electronics and electrical
— Automotive and transportation

Business Unit Pigments

— Applications for conventional printing inks, inkjet inks, and electrophotographic toners
— Coloration of plastic applications
— Decorative, industrial, and automotive coatings
— Special applications for, e.g., home and personal care, aluminum, seed coatings, stationery, viscose, latex, and leather

The sustainability trend is further propelled by the requirements of the automotive industry to reduce the weight of plastic components, which helps improve the fuel economy of their vehicles and reduce overall material usage. This weight reduction is an important element of the overall light-weighting strategy vehicle producers need to have in place to meet the stringent emission reduction targets required by legislation. Business Unit Masterbatches has responded to this demand by developing chemical foaming agents (CFAs), such as HYDROCEROL®, for use in automotive components.

HYDROCEROL®

HYDROCEROL® chemical foaming and nucleating agents are commonly used in consumer goods and automotive components to reduce part weight without compromising stiffness or mechanical properties.

Despite these beneficial trends, Business Units Masterbatches and Pigments were challenged by the global economic slowdown. The softer demand in China and Europe, as well as the weakness of the automotive industry, negatively impacted sales volumes in 2019.

3. Innovating for a circular economy

In 2019, the primary innovation driver was the circular economy megatrend. With regard to plastics, switching to a circular model requires adapting product formulations and designs to improve recyclability. In particular, customers are demanding solutions to enhance the quality of degraded polymers in the recycling process since the use of post-consumer recycling plastics is expected to become mandatory. To become a leading player in recycling, Business Unit Masterbatches focused its innovation activities in this area. It advanced the development of near-infrared-detectable (NIR) compounds with black pigments and dyes, which address the challenge of sorting high-appeal black packaging at recovery and recycling facilities, and invested in new solutions to improve the handling of post-consumer recycling plastics. These include color management tools that help customers utilize imperfectly colored starting materials and still achieve a constant coloration of finished products.

Near-infrared (NIR)

NIR spectroscopy is used in plastics recycling. Typically, black-colored plastic blocks NIR and thus hinders the recycling process. Clariant developed an NIR-transparent black color to avoid the contamination of waste streams.

Overall, Business Unit Masterbatches continued investing in its technical capabilities and innovation resources. For example, a new Center of Excellence on »Design for Recyclability« was built in Pogliano, Italy, in 2019. To fully support »Design for Recyclability,« the center will contain a small recycling plant and recruit external polymer and recycling experts to support the development of innovative applications in collaboration with customers. The Center of Excellence will be labeled »Cycle Works.« → PAGE 186

Through its Digital Innovation Office in Singapore, the Business Unit also advanced research in digital solutions, such as InstaColr™, a cloud-based tool for on-the-spot colormatching at the customer via an iPad based app. → PAGE 147

Given the scale of the challenge the circular economy poses for the chemical industry, Business Unit Masterbatches started leading innovation projects with several brand owners and plastic converters. It entered a partnership with Polymateria, a London-based start-up that developed a technology to biodegrade polyolefins without leaving microplastics. Another collaboration was launched with Merck and SABIC to develop laser marking solutions for flexible packaging, which improves the recyclability of polyethylene films.

Innovation in Business Unit Pigments continued with a focus on delivering powerful solutions to customer challenges and problems as well as solutions to improve the cost structure of the product portfolio. The Business Unit investigated areas closely linked to circular economy, automation, and enhanced product performance. This supports the delivery of the business growth ambitions while simultaneously increasing sustainability of products and production processes.

In addition, trends such as autonomous driving and sustainability in industrial inkjet printing influenced Pigment's innovation activities. Since autonomous vehicles can typically not recognize standard black colors, Clariant's new detectable black pigments can be used not only in the recycling of black polymers, but also to support the detection of black autonomous vehicles.

The trends toward individualization and sustainability continued driving the digital inkjet printing market. Pigments intensified its engagement in this area and is developing water-based inks, which will be presented as an environmentally sound solution at the DRUPA trade show in 2020.

4. Successful product launches

As part of Clariant's »Design for Recycling« program, Business Unit Masterbatches launched a new range of CESA® IR additive masterbatches that make dark-colored plastics visible in automated polymer sorting systems. While black-colored articles typically blind the NIR detectors, potentially contaminating waste streams, these new solutions will help increase recycling rates by making black plastic items recyclable. Specific CESA® IR formulations have been developed to enable NIR-detectability of black high-density and low-density polyethylene in injection and blow-molded products, black polypropylene in films and injection-molded products, and different types of black polyethylene terephthalate (PET) in sheets and film.

CESA® ProTect

The oxygen scavenger is suited for monolayer polyethylene terephthalate (PET) and protects oxygen-sensitive food and beverages by absorbing oxygen molecules.

At the K Show, the world's leading trade fair for plastics and rubber, Business Unit Masterbatches presented the patent-protected, high-performing oxygen scavenger additive masterbatch CESA® ProTect. This new product enhances the shelf life of food and beverages and helps reduce food waste.

The product launches of Business Unit Pigments will also make the creation of recycling streams for black plastics more viable. The Business Unit developed the first range of NIR-detectable black pigments and dyes, including: the polymer-soluble dye Solvaperm® Black PCR for the black and gray coloration of PET, polystyrene (PS), and polycarbonate (PC); the new Graphtol® Black CLN pigment, which is tailored to polyolefins and is food contact-approved in various countries worldwide; and the polymer-soluble dye Polysynthren® Black H, one of very few colorants suitable for polyamides (PA), the largest family of engineering plastics.

In 2019, Business Unit Pigments focused on introducing products that are compliant with the latest regulatory requirements. With its Cosmenyl™ 100 product range, it launched optimized cosmetic grades of pigment preparations with a new preservation system. The modified Cosmenyl™ range fulfills the new European preservative regulations for cosmetic products, meeting strict requirements regarding heavy metal content, aromatic amine components, and microbiological purity. Business Unit Pigments also enhanced its Agrocer® product range, which consists of pigments and pigment preparations for the coloration of seed, with several products customized to the global and regional seed coatings market needs. The coloration of seeds that are treated with pesticides is mandatory in most countries to avoid misuse. In addition to this safety feature, Agrocer® pigments also enable individual colors and color shades for branding purposes, identifying a specific treatment between different seed varieties and allowing for easy monitoring of uniformity and consistency of seed treatments.

5. Strengthening commercial competences

Business Unit Masterbatches further implemented its functional excellence program in 2019 by establishing a competence center for sales force effectiveness. The primary objective of the competence center is to create a high-performing commercial organization by ensuring the systematic measurement and monitoring of sales force productivity through the development of a clear measuring methodology, embedding a consistent application of the Customer Relationship Management system, and by offering training programs to strengthen commercial skills within the sales force.

Business Unit Pigments continued to implement the Leading Marketing Organization, a process that started in 2018. In 2019, a Global Marketing & Innovation group was set up as a new function. In addition, as part of the same initiative, a new Key Account Management group was also created. These activities led to a better understanding of market trends and customer needs and supported the Business Unit in improving its pricing and growing with key accounts.

»New CESA® IR Masterbatches have been developed to achieve a persuasive black color on plastics without compromising on the essential detectability during the recycling process.«

Alessandro Dulli
Head of Segment Packaging, Business Unit Masterbatches

6. Optimizing operational and procurement efficiency

The ability to react quickly to changing customer choices is a prerequisite for competitiveness. Thus, optimizing the operational chain is the key to success. To do so, Business Unit Masterbatches focused on three pillars. First, it started reducing the range of raw materials sourced, concentrating on those with an optimal price-performance ratio. Second, it improved lead times and reliability by introducing a dashboard that provides transparency on the status of all current orders, enabling the Business Unit to meet the lead times requested by its customers. Third, by better coordinating the different production sites within each region, Business Unit Masterbatches intends to further increase production volumes without investing in additional capacities, making it possible to serve customers with very short lead times.

Responsible Mica Initiative

Business Unit Masterbatches joined the Responsible Mica Initiative, an association that aims to improve the control and trackability of the extracted mica to ensure decent working conditions for the workers involved and to avoid child labor.

In order to become more independent and flexible in the sourcing of raw material, Business Unit Pigments took a new approach regarding procurement. It identified additional suppliers and decided to insource the production of certain intermediate products that had previously been procured. In addition, it continued the implementation of project »Clockwork« in order to improve effectiveness and efficiency of the end-to-end supply chain, which will lead to optimized transparency, reliability, and predictability as well as improved inventory levels and lead times. In 2019, Pigments improved its On-Time, In-Full (OTIF) performance by 10 %. To expand the production capacity for the automotive industry, it opened a facility for high-end blue pigments in Cuddalore, India.

6.1. Ensuring safe operations

Both Business Units are committed to protecting employee safety, health, and well-being and work toward the goal of zero accidents. All employees are continuously trained to optimize safety behavior and culture to reduce accidents. After significantly improving the safety performance in recent years, Business Unit Masterbatches plans to further harmonize local, regional, and global standards in order to apply the strictest safety regulations in all of its plants.

Business Unit Pigments improved accident and incident rates by conducting site-specific fitness and awareness programs and implementing a near-miss recording system in all sites. In addition, it conducted several refresher trainings and offered »Safety Moments« – brief documents containing safety messages – at the beginning of each meeting.

6.2. Improving environmental performance

Business Units Masterbatches and Pigments focus on improving environmental performance by reviewing and optimizing production processes. Both Business Units apply three layers of environmental protection. First, strict compliance with all local regulations, laws, and permits of the production sites is ensured. Second, ESHA guidelines, which typically go beyond local regulations, are followed at all sites. Third, all sites operate along ISO 9001/14001 standards.

In 2019, the Business Unit Masterbatches started an initiative to use recycled resins for the coloration of masterbatches. This will allow customers to use recycled materials while achieving the desired coloration results. It also began implementing a »zero loss pellet« approach as part of its production system. The approach minimizes the loss of plastic particles during various handling processes, thus contributing to higher yields. Blueprints for optimized processes are rolled out globally and will be audited on a regular basis.

Multicapital Review

Structured around Clariant's brand values of Performance, People, and Planet, the »Multicapital Review« outlines Clariant's progress over the reporting year on the topics deemed material for the company's long-term business success. Key performance indicators that cover economic, social, and environmental topics are explained and discussed.

124 Performance
134 Focus on the Core Businesses
154 People
170 Keep the Team Safe
178 Planet
186 Drive Change in the Industry

By drawing on various tangible and intangible, financial and nonfinancial resources, Clariant creates value for its stakeholders. Six different forms of capital – financial, intellectual, manufactured, human, relationship, and natural – all factor into the company's business performance, its support of societal needs, and its commitment to environmental stewardship. Each form of capital feeds into one of Clariant's brand values:

Performance
Clariant combines financial, intellectual, and manufactured capital into the brand value of Performance. In addition to financial performance, progress is measured regarding the most material topics of Innovation and Technological Advances, Digitalization, Product Stewardship/Sustainable Chemistry, as well as procurement, and production.

People
Human and relationship capital fall under the brand value of People. Employee-related topics, including the most material topics of Talent Attraction and Development, Employee Engagement, and Occupational Health, Safety, and Well-being, are grouped under human capital. Topics regarding customers, policy-makers, suppliers, and society at large are considered as relationship capital.

Planet
Clariant reports on natural capital as part of its brand value of Planet. This reporting includes Clariant's progress on its ambitious environmental targets and the most material topic of Circular Economy. In addition, it covers topics related to environmental stewardship, such as safeguarding resources and mitigating climate change.

Performance

Performance – Clariant's first brand value – encompasses value creation regarding financial, intellectual, and manufactured capital. By reporting achievements not only with regard to the most material topic of Growth and Profitability but also reporting progress on Innovation and Technological Advances, Digitalization, Product Stewardship and Sustainable Chemistry, procurement, and production, Clariant broadens its review of results, underscoring its holistic understanding of value creation.

1. Financial Capital

In 2019, Clariant increased its sales and improved underlying profitability despite the challenging global economic environment.

1.1. Business performance summary for 2019

Clariant reported continuing operations sales of CHF 4.399 billion in 2019 compared to CHF 4.404 billion in 2018. This corresponds to an organic growth of 3 % in local currency and a stable development in Swiss francs due to unfavorable currency fluctuations. The sales increase in local currency was driven by a progression in the Business Areas Catalysis and Natural Resources and was supported by both higher volumes and pricing.

Almost all regions contributed to the sales growth in local currency. The expansion was most pronounced in Latin America. Sales in Asia also increased, bolstered by a particularly positive development in India. Sales in the Middle East & Africa rose solidly while Europe grew slightly. Only North America reported a slight contraction.

Continuing operations EBITDA after exceptional items was negatively impacted by the one-off CHF 231 million provision, which was booked in the second quarter as a result of further developments in an ongoing competition law investigation by the European Commission into the ethylene purchasing market. Therefore, the full year 2019 EBITDA after exceptional items decreased significantly to CHF 461 million, compared to CHF 607 million in the previous year.

Excluding the effect of this provision, the continuing operations EBITDA after exceptional items rose by 14 % to CHF 692 million, supported by strong profitability improvements in both Catalysis and Natural Resources, which more than offset the softer margins in Care Chemicals. The corresponding continuing operations EBITDA margin after exceptional items, excluding this provision, increased to 15.7 % versus 13.8 % in the previous year.

In 2019, operating cash flow for the total Group declined to CHF 509 million from CHF 530 million in the previous year. This decrease was primarily attributable to a lower net result, the net working capital development, and slightly higher capital expenditures.

GRI Online Report
Management Approach Growth and Profitability
→ reports.clariant.com/2019/gri

CONTINUING OPERATIONS KEY FIGURES in CHF m

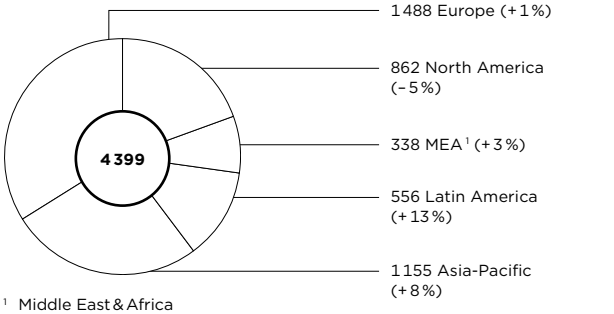
	2019	2018	Change in %
Sales	**4399**	4404	0
Gross profit on sales	**1375**	1362	1
EBITDA b.e.i.[1]	**740**	739	0
EBITDA margin b.e.i.[1] (%)	**16.8**	16.8	–
EBITDA a.e.i.[2]	**461**[3]	607	–24
EBITDA margin a.e.i.[2] (%)	**10.5**[3]	13.8	–
EBIT b.e.i.[1]	**444**	480	–8
EBIT margin b.e.i.[1] (%)	**10.1**	10.9	–
EBIT a.e.i.[2]	**165**[3]	348	–53
EBIT margin a.e.i.[2] (%)	**3.9**[3]	7.8	–
Income before taxes	**71**	281	–75
Net result	**–34**	213	–
Basic earnings per share (CHF/share)	**–0.17**	0.59	–
Adjusted earnings per share	**0.87**	1.03	–16

[1] Before exceptional items

[2] After exceptional items

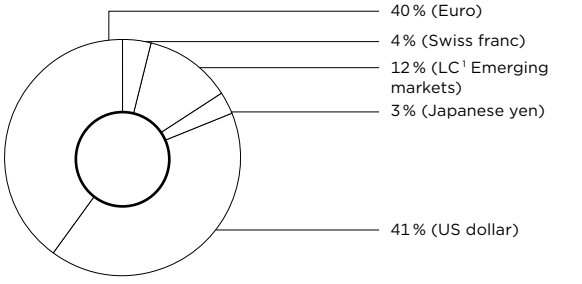
[3] Including a CHF 231 million provision for an ongoing competition law investigation by the European Commission;
Excluding provision:
EBITDA at CHF 692 million (+14%), EBITDA margin 15.7%
EBIT at CHF 396 million (+14%), EBIT margin 9.0%

001 **SALES BY REGION** in CHF m



[1] Middle East & Africa

002 **GLOBAL COST DISTRIBUTION**



[1] LC = Local currency

1.1.1. Solid local currency sales progression in a challenging economic environment

In 2019, continuing operations sales rose organically by 3% in local currency and remained flat in Swiss francs at CHF 4.399 billion (2018: CHF 4.404 billion). The sales development was underpinned by 1% volume growth and by 2% higher prices.

SALES BY BUSINESS AREA in CHF m

	2019	2018	Change in %	Change in LC[1] in %
Care Chemicals	**1600**	1665	–4	–1
Catalysis	**925**	861	7	9
Natural Resources[2]	**1874**	1878	0	4
Total Continuing Operations	**4399**	**4404**	**0**	**3**

[1] LC = Local currency

[2] Including Additives

Care Chemicals sales declined a minor 1 % in local currency and by 4 % in Swiss francs. The good sales progression in Consumer Care could not fully absorb the softened development in Industrial Applications, which primarily resulted from a continued cautious end-market demand environment and a weaker aviation business. Sales in the Business Area Catalysis improved by 9 % in local currency and 7 % in Swiss francs as a result of positive contributions in both Petrochemicals and Syngas. Natural Resources sales rose by 4 % in local currency and remained stable in Swiss francs, underpinned by the strong progression in Oil and Mining Services and a slight improvement in Functional Minerals. Additives sales were negatively impacted by the softer electrical and electronics sectors as well as the weak automotive markets.

1.1.2. Clearly improved underlying EBITDA after exceptional items in 2019

Clariant's continuing operations gross margin improved to 31.3 % in 2019 from 30.9 % in 2018. This development is largely the result of a more favorable product mix.

Continuing operations EBITDA after exceptional items was negatively impacted by the one-off CHF 231 million provision, which was booked in the second quarter as a result of further developments in an ongoing competition law investigation by the European Commission into the ethylene purchasing market. As a result, the full year 2019 EBITDA after exceptional items decreased significantly to CHF 461 million compared to CHF 607 million in the previous year.

Excluding the effect of the one-off provision, the continuing operations EBITDA after exceptional items rose by 14 % in Swiss francs to CHF 692 million compared to CHF 607 million in the previous year.

The increase in underlying continuing operations EBITDA after exceptional items reflects the enhanced profitability in most Business Areas, with a pronounced improvement in Catalysis at 15 % in Swiss francs and 13 % in Natural Resources. In Care Chemicals, the EBITDA after exceptional items contracted by 10 %.

EBITDA[1] BY BUSINESS AREA in CHF m

	2019	2018	Change in %
Care Chemicals	**282**	314	– 10
Catalysis	**212**	185	15
Natural Resources[2]	**305**	271	13
Business Areas total	**799**	770	4
Corporate[3]	**– 338**	– 163	–
Total Continuing Operations	**461**	**607**	**– 24**

[1] After exceptional items

[2] Including Additives

[3] Includes a CHF 231 million provision for an ongoing competition law investigation by the European Commission

The improvement in the underlying continuing operations EBITDA margin after exceptional items, excluding the one-off provision, to 15.7 % from 13.8 % was primarily attributable to strong profitability improvements in both Catalysis and Natural Resources. Growth in Catalysis was attributable to solid sales expansion throughout 2019 and an improved product mix while Natural Resources benefited from local currency sales growth and a continued focus on more value-added applications in Oil Services. One-off effects in the second quarter and lower Industrial Applications sales were the primary reasons for the decline at Care Chemicals.

EBITDA[1] MARGIN BY BUSINESS AREA in %

	2019	2018
Care Chemicals	**17.6**	18.9
Catalysis	**22.9**	21.5
Natural Resources	**16.3**	14.4
Total Continuing Operations	**10.5[2]**	**13.8**

[1] After exceptional items

[2] Total Continuing Operations EBITDA margin excluding a CHF 231 million provision for an ongoing competition law investigation by the European Commission was 15.7 %

Clariant's exceptional items for continuing operations in 2019 amounted to CHF 279 million (2018: CHF 132 million). Restructuring-, impairment-, and transaction-related costs (CHF 281 million) include restructuring expenses pertaining to its continuing operations in the amount of CHF 4 million, mainly pertaining to projects in Europe and transaction-related costs in the amount of CHF 46 million. Exceptional items include a gain from the disposal of activities not qualifying as discontinued operations (CHF 2 million). Additionally, a one-off provision of CHF 231 million was made for an ongoing competition law investigation by the European Commission.

In 2019, the continuing operations operating income (EBIT) decreased to CHF 165 million (2018: CHF 348 million) as a result of the provision of CHF 231 million. Excluding this effect, the continuing operations operating income (EBIT) increased to CHF 396 million.

The net result for the total Group declined to CHF 38 million from CHF 356 million in full year 2018. This decrease is largely attributable to the CHF 231 million one-off provision, the weaker operational performance in the discontinued operations, the carve-out costs of the discontinued operations, and higher income taxes.

Clariant's Board of Directors has decided to propose an unchanged distribution of CHF 0.55 per share for 2019 to the general assembly. The corresponding proposal will be presented at the 25th Annual General Meeting on 30 March 2020.

1.1.3. Business Areas

1.1.3.1. Care Chemicals

CARE CHEMICALS KEY FIGURES in CHF m

	2019	2018
Sales	**1600**	1665
EBITDA[1]	**282**	314
Margin[1] (%)	**17.6**	18.9
EBIT[1]	**211**	251
Margin[1] (%)	**13.2**	15.1
Full-time equivalents (FTE)	**2614**	2541

[1] After exceptional items

Care Chemicals sales slightly decreased by 1 % in local currency and were 4 % lower in Swiss francs. Consumer Care sales increased due to a solid progression in Personal Care with a notable expansion in Crop Solutions. Industrial Applications sales developed less favorably due to continued cautious end-market demand and softer Aviation business.

Sales in Asia and Latin America reflected solid progress in local currency while sales in Europe also grew slightly. The development in North America was negatively affected by the force majeure of a key supplier in the second quarter, which has since been resolved.

The EBITDA margin after exceptional items for the full year 2019 softened to 17.6 % from 18.9 % due in part to the temporary negative impact from the raw material disruptions in North America and volume reductions in Industrial Applications resulting from weaker end-market demand.

For developments and achievements in 2019 concerning Care Chemicals, see the chapter on »How Care Chemicals Creates Value«. → **PAGE 74**

1.1.3.2. Catalysis

CATALYSIS KEY FIGURES in CHF m

	2019	2018
Sales	**925**	861
EBITDA [1]	**212**	185
Margin [1] (%)	**22.9**	21.5
EBIT [1]	**140**	111
Margin [1] (%)	**15.1**	12.9
Full-time equivalents (FTE)	**2113**	2061

[1] After exceptional items

In 2019, sales in Catalysis rose by a substantial 9 % in local currency and by 7 % in Swiss francs. Sales expansion was driven by a very good progression in Petrochemicals and a solid increase in Syngas.

The sales development benefited from double-digit growth in Asia and Europe and resilient demand in North America. Sales in the Middle East & Africa were comparatively volatile in 2019.

The EBITDA margin after exceptional items for the full year 2019 increased to 22.9 % from 21.5 %. Solid top-line growth throughout the year and the more significant sales contribution from Petrochemicals underpinned this improvement.

For developments and achievements in 2019 concerning Catalysis, see the chapter on »How Catalysis Creates Value«. → **PAGE 88**

1.1.3.3. Natural Resources

NATURAL RESOURCES [1] **KEY FIGURES** in CHF m

	2019	2018
Sales	**1874**	1878
EBITDA [2]	**305**	271
Margin [2] (%)	**16.3**	14.4
EBIT [2]	**208**	194
Margin [2] (%)	**11.1**	10.3
Full-time equivalent (FTE)	**3948**	4092

[1] Including Additives

[2] After exceptional items

Sales in the Business Area Natural Resources increased by 4 % in local currency and remained unchanged in Swiss francs for the full year 2019.

The Oil and Mining Services business delivered low double-digit sales growth in local currency. Sales in Functional Minerals grew at a low single-digit rate in local currency, driven by the Purification business. Sales in Additives decreased at a high single-digit rate in local currency against a record 2018, owing to softer end-market demand.

In 2019, the EBITDA margin after exceptional items rose to 16.3 % from 14.4 % due to sales growth in local currency in tandem with a continued focus on more value-added applications in Oil Services as well as a more streamlined cost base in Oil and Mining Services. Additives largely mitigated the negative margin impact from lower volumes due to rapid and stringent cost control measures.

For developments and achievements in 2019 concerning Natural Resources, see the chapter on »How Natural Resources Creates Value«. → **PAGE 102**

1.1.3.4. Discontinued Operations

DISCONTINUED OPERATIONS KEY FIGURES in CHF m	2019	2018
Sales	**2 127**	2 219
EBITDA [1]	**158**	264
Margin [1] (%)	**7.4**	11.9
Full-time equivalents (FTE)	**5 282**	5 978

[1] After exceptional items

As part of Clariant's portfolio optimization, the Business Units Pigments and Masterbatches and the Business Line Healthcare Packaging, which operated as a part of the Business Unit Masterbatches, were restated for 2018 and reclassified to discontinued operations beginning with the First Half-Year Results 2019.

On 31 October 2019, Clariant sold its Healthcare Packaging business to Arsenal Capital Partners. The final total consideration of the sale amounted to CHF 310 million and the proceeds net of cash amounted to CHF 295 million. On 19 December 2019, Clariant announced that it had agreed to sell its entire Masterbatches business for USD 1.56 billion. This deal is expected to be closed by Q3 2020.

In the full year 2019, sales in discontinued operations (Masterbatches and Pigments) decreased by 2 % in local currency and by 4 % in Swiss francs. The businesses were negatively impacted by the global economic slowdown, mainly by softer demand in China and Europe as well as the weakness in the automotive industry.

For the full year 2019, the EBITDA after exceptional items decreased in absolute value year-on-year due to the sales contraction and higher one-time costs required by the carve-out of the discontinued operations.

1.2. Balance sheet, liability structure, liquidity, and cash flow

1.2.1. Continued solid balance sheet

As of 31 December 2019, total assets changed only minimally to CHF 7.990 billion from CHF 7.979 billion at the end of 2018 mainly due to the introduction of IFRS 16 Leases, the reclassification to assets held for sale of the Masterbatches and Pigments businesses and the sale of Healthcare Packaging business on 31 October 2019.

Assets held for sale and liabilities directly associated with assets held for sale amounted to CHF 1.305 billion and CHF 559 million, respectively, as of 31 December 2019. This mainly impacts the assets and liabilities pertaining to the activities of the discontinued operations.

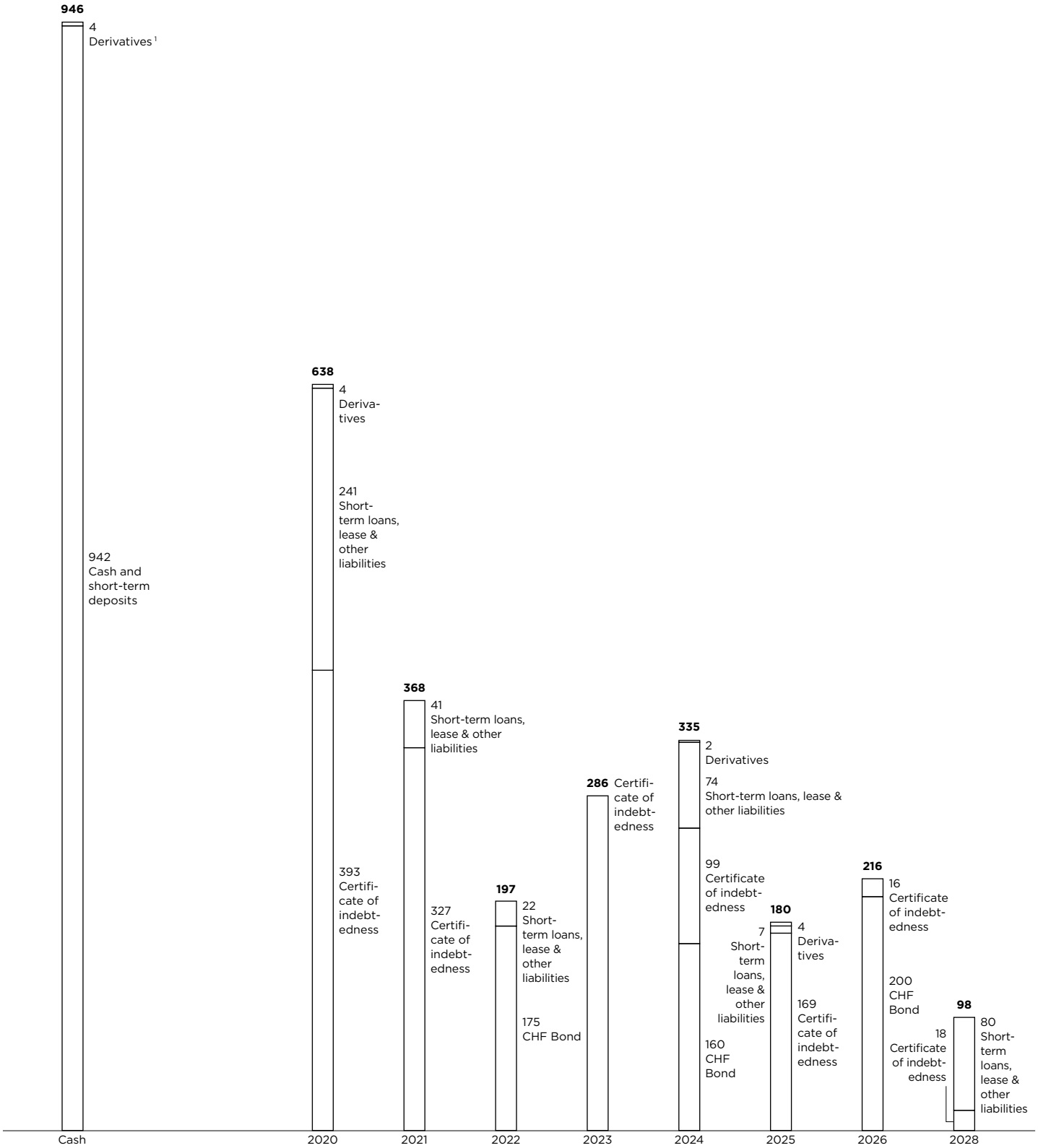
Net debt remained almost unchanged at CHF 1.372 billion at the end of December 2019 compared to CHF 1.374 billion at the end of 2018. This figure includes current and noncurrent financial debts, lease liabilities (2019, in accordance with IFRS 16, CHF 246 million; 2018, in accordance with IAS 17, CHF 17 million), cash and cash equivalents, short-term deposits, and financial instruments with positive fair values reported under other current assets, including the part reported under assets held for sale and liabilities directly associated with assets held for sale.

1.2.2. Long-term structured maturity profile secures solid liquidity structure

In the year 2019, Clariant's financing structure persisted at a very sound level. The Group maintains a broadly diversified maturity structure of financial liabilities with a long-term focus reaching until 2028. This funding has been secured on favorable terms.

Noncurrent financial debts decreased to CHF 1.485 billion at the end of December 2019 from CHF 1.711 billion at the end of December 2018, and current financial debts increased to CHF 587 million at the end of December 2019 from CHF 529 million at the end of December 2018. The decrease in noncurrent financial debts and the increase in current financial debts are mainly due to the combined effect of the reclassification to current financial debts of the EUR 150 million certificate of indebtedness maturing in April 2020, of the EUR 212 million

003 **DEBT MATURITY PROFILE PER 31 DECEMBER 2019** in CHF m



[1] Financial derivatives with positive fair values reported under other current assets

certificate of indebtedness maturing in October 2020, and new bonds totaling CHF 200 million which were launched in April 2019. Additionally, a bond amounting to CHF 285 million issued in 2012 reached maturity on 24 April 2019 and was repaid. Due to the implementation of IFRS 16, finance lease liabilities presented as part of financial debts at the end of December 2018 were reclassified to separate lines in the balance sheet.

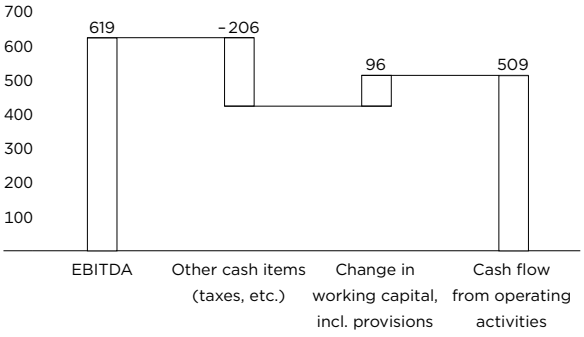
1.2.3. Operating cash flow hampered by working capital development and one-time carve-out costs of discontinued operations

Cash flow from operating activities before changes in net working capital and provisions for 2019 was CHF 534 million, compared to CHF 802 million for 2018.

Net working capital, including provisions decreased by CHF 96 million in 2019 (2018: CHF – 55 million). The ratio of net working capital to sales slightly decreased from 17.3 % to 17.2 %.

Cash flow from operating activities decreased to CHF 509 million compared to CHF 530 million in the previous year.

004 **TOTAL GROUP CASH FLOW 2019** in CHF m



Cash flow from investing activities declined to CHF – 254 million (2018: CHF – 132 million). Capital expenditures increased to CHF 273 million (2018: CHF 237 million). Free cash flow, which equates to operating cash flow after capital expenditures and investments in intangible assets, decreased to CHF 220 million (2018: CHF 273 million).

Net cash flow after investing and financing activities was negative at CHF – 195 million (2018: CHF 132 million).

EXTRACT OF CASH FLOW STATEMENT (Total Group) in CHF m

	31.12.2019	31.12.2018
Net income	**38**	**356**
Reversal of non-cash items	**483**	438
Cash flow before changes in net working capital and provisions	**534**	802
Operating cash flow	**509**	**530**
Cash flow from investing activities	**– 254**	– 132
Cash flow from financing activities	**– 440**	– 246
Net Change in cash and cash equivalents	**– 195**	**132**
Cash and cash equivalents at the beginning of the period	**833**	**701**
Cash and cash equivalents at the end of the period	**638**	**833**

1.3. Outlook

1.3.1. Focused portfolio to achieve above-market growth, higher profitability, and stronger cash generation

Clariant is a focused and innovative specialty chemical company that aims to grow above the market and to achieve higher profitability through innovation and sustainability. Clariant has significantly reshaped its portfolio through the divestment of Healthcare Packaging in 2019, the announced sale of Masterbatches, and the planned divestment of Pigments in 2020.

Clariant expects its continuing operations to achieve above-market growth, higher profitability, and stronger cash generation based on a focused, high-value specialty portfolio. For 2020, given the current sluggish economic environment and continued adverse foreign exchange conditions, growth will be more limited, and additional efficiency measures have been defined for each of the businesses to support the margin increase. These measures will lead to a workforce reduction of approximately 500 to 600 positions over the next two years and imply a cost base reduction of approximately CHF 50 million.

1.4. Stock market 2019

1.4.1. Clariant share price development 2019

In 2019, Clariant's share price development largely followed general market trends, political events and uncertainties as well as corporate announcements. In January, Clariant's share price started the year at CHF 17.90 and continuously improved throughout the month, reflecting the general market trend.

On 13 February, Clariant released the full year 2018 results and confirmed the mid-term guidance. The results were broadly in line with expectations, and the share price remained largely unchanged, moving from CHF 20.00 to CHF 19.75.

Clariant's Annual General Meeting on 1 April was well attended, and all proposed agenda items and resolutions were approved. Clariant's share price reacted positively and increased to CHF 21.35. On 23 April, the share price advanced to its highest level in 2019 of CHF 22.40.

The first quarter 2019 results, which were published on 30 April, missed market expectations due to lower profitability in the Natural Resources and Plastics & Coatings Business Areas. Consequently, the share price decreased from CHF 21.55 to CHF 20.95 on reporting day. After decreasing to CHF 18.20 at the beginning of June, the share price gradually started recovering again throughout the month. On 23 July, as a consequence of the announcement of the agreement to sell Clariant's Healthcare Packaging business the prior day, the share price reached CHF 20.20.

On 25 July, the first half year 2019 results and the announcement of the suspension of the potential High Performance Materials cooperation with SABIC resulted in a share price drop. The numbers came in below the consensus, which was disappointed primarily by the profitability in Care Chemicals and Catalysis. The share price dropped to CHF 18.00 on reporting day from CHF 19.90, a negative reaction that was more pronounced than the overall subdued sentiment in the chemical sector. The sector weakness was primarily attributable to the continued global economic slowdown and persistent political risk around global trade uncertainties.

The Clariant share price also came under pressure from repeated profit warnings and forecast downgrades within the chemical industry, which unsettled investors and led to the sale of chemical shares on a broad front during the summer months. Consequently, Clariant's share price decreased to its low point in 2019 of CHF 17.10 on 15 August.

Beginning in September, the general market sentiment began to gradually improve due to increasing signs of easing in the trade relations between China and the USA. In mid-October, positive signals for an improvement in the trade relations between China and the USA fueled market optimism and drove Clariant's share price back up to CHF 21.45, its highest level in the second half of 2019.

On 30 October, the third quarter results 2019 were below market expectations in the Care Chemicals Business Area but broadly in line with the chemical sector trend. Clariant's share price dropped to CHF 20.80 from CHF 21.10 on reporting day but recovered again shortly thereafter.

Throughout November, Clariant's share price fluctuated between a range of CHF 20.20 to CHF 20.90, tracking the global stock market and reflecting the changing status of trade negotiations between China and the USA.

The share price increased to CHF 21.35 on 19 December, following the announcement of the agreement to sell Clariant's Masterbatches business. In tandem with the generally positive stock market trend, Clariant's share price rose further and closed the year at CHF 21.60.

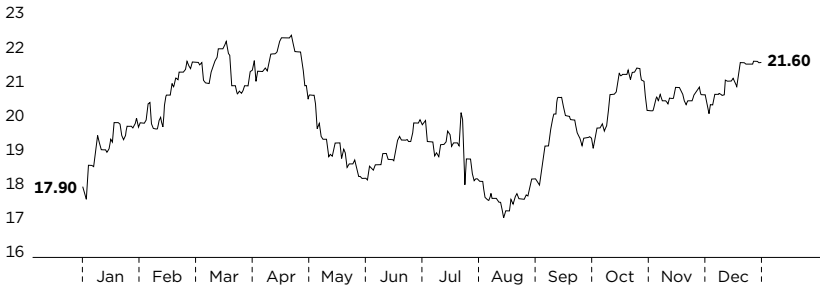
Clariant has been included in several notable indices, such as the MSCI Equity Switzerland Index. Clariant's inclusion for the seventh consecutive year in the Dow Jones Sustainability Index, which benchmarks the sustainability performance of leading companies in environmental, social, and economic terms is a recognition of Clariant's best-in-class achievements in these fields. In 2019, Clariant was awarded the SAM Bronze Class award for its sustainability performance. The repeated listings in other sustainability indices, such as the SIX Switzerland Sustainability 25 Index, FTSE-4Good Index Series, Euronext Vigeo Europe 120 Index and Ethibel Sustainability Indices (ESI), further validate Clariant's commitment to create value through sustainability and innovation.

1.4.2. Distribution

Since 2014, Clariant increased the distribution per share by an average of 7 % per annum. Despite the difficult economic environment, the solid performance allows the Board of Directors to propose an unchanged distribution of CHF 0.55 per share to the Annual General Meeting, following a 10 % increase the year earlier. This distribution is proposed to be made from a capital decrease by way of a par value reduction.

This distribution is in addition to the proposal of an extraordinary cash distribution of CHF 3.00 per share linked to the completion of the divestment of Masterbatches as announced on 19 December 2019.

005 **CLARIANT SHARE PRICE DEVELOPMENT 1 JANUARY – 31 DECEMBER 2019** in CHF




CLARIANT

Focus on the Core Busi-nesses

Growth and Profitability

Becoming a pure specialty chemicals player

Chief Financial Officer Patrick Jany on the company's results of the past financial year and its way forward.

Contribution to SDGs

This interview is an example of Clariant's contribution to SDG 8.
Read more on → PAGE 24



Mr. Jany, in 2019, Clariant performed well despite a relatively difficult economic environment. To what do you attribute this?
That's correct. With 3 % growth in local currency and an EBITDA margin of 15.7 % we showed good progress compared to the previous year and in relation to our peers. We have been able to demonstrate the resilience of our innovative and growth-oriented portfolio. Even more impressive is that we managed this despite headwinds from trade conflicts, the general politically tense situation in many regions, and some difficulties in our businesses.

The net result was negatively impacted by a provision for a competition law investigation by the EU Commission. How did this come about?
The investigation itself started in July 2017. In early July last year, we received additional information that allowed us to quantify the risk for the first time. That's all we can say about the investigation at this moment. The next logical step is that the EU will finalize its investigation and communicate to the involved companies. We cannot guide on a precise moment, but it probably will be this year.

You mention some difficulties. What happened and how satisfied are you with the performance of the businesses?
In general, the performance of the businesses was good. Catalysis and Natural Resources in particular grew continuously throughout the year, with an excellent fourth quarter. In Oil and Mining Services, we were able to continuously catch up after a more difficult phase a couple of years ago. We shrank our less profitable land-based business, where the market is very competitive, and moved into more promising areas, for instance, Offshore. Functional Minerals, while delivering good results in the oil purification business, suffered like Additives from a weakness in the automotive and electric/electronics sectors. Our biggest business, Care Chemicals, had a minor decrease in 2020 as Personal Care and Crop Solutions, which reported good progress, could not absorb the lower demand in the aviation business and the effects of a force majeure in the second quarter, which did have repercussions into the third quarter. This was a very unfortunate event that deteriorated our numbers, but we were able to rebound in the fourth quarter.

And how did the two businesses held for sale perform in the previous year?
In 2019, Pigments and Masterbatches were negatively impacted by the global economic slowdown and a weakness in the automotive sector, especially in China and Europe. But in general, both businesses are doing well. They have established very good market positions and are leading in their respective areas, which allowed them to weather the storm.



Patrick Jany
Chief Financial Officer (CFO)

The decision to consider divesting both of them dates back as early as to 2015, when we separated Plastics & Coatings from the growth businesses. The purpose was to explicitly focus those businesses on efficiency, harvesting their excellent market positions to reallocate resources into our growth businesses, where we believe that innovation and sustainability will allow us to grow at rates above the market average. Today, we are executing on this plan by focusing on Care Chemicals, Catalysis, and Natural Resources and freeing up resources to be able to grow and concentrate our efforts to succeed in those areas rather than maintaining too broad a portfolio.

Following the divestment of Healthcare Packaging and the signing of an agreement with PolyOne, Clariant intends to propose a special dividend of CHF 3.00 per share to the shareholders at the 2020 Annual General Meeting. Why now? Why not wait until the Pigments business is also successfully sold?

The one-time dividend we are proposing to the Annual General Meeting is actually the one and only capital return to shareholders linked to the whole divestment program of all three businesses: Healthcare Packaging, Masterbatches, and Pigments. We will simply use the proceeds of the divestment of Masterbatches to pay out this extraordinary return while the proceeds of the other divestments will be used to reduce our debt level and allow for organic and external growth. As we are confident that the divestment of Pigments will be done as successfully as Healthcare Packaging and Masterbatches, we can time the payment with the Masterbatches sale and therefore avoid having too much cash on the balance sheet, which is never a good thing with negative interest rates!

Clariant announced job cuts at its full-year press conference, and this was welcomed by the financial markets. Why is this reduction necessary?

We are talking about two different sets of measures. The one we announced at our full-year press conference is a set of very granular measures defined by the businesses to be able to increase profitability in this difficult environment. In 2018, when we defined our 2021 strategy, the economic environment and growth expectations were very different. It is only logical that we need to adapt our cost structure and rethink our resource allocation in order to cope with the lack of growth and still be able to progress towards our targets.

And what is the second program about?

It's about Clariant 2021, the new Clariant. Through the divestments of Pigments and Masterbatches, we are repositioning the company as a focused specialty chemicals company. But we are also shrinking and need to rethink the way we are structured, both at a corporate and at a regional level. This is not a simple cost-cutting exercise but an opportunity to reinvent ourselves: to remove complexity, avoid remnant costs, and increase efficiency. As a next step, we will determine what this will look like in concrete terms.

Since 2018, Clariant has had a new anchor shareholder on board. How would you describe the relationship to SABIC?

It's a very steady and stable relationship. SABIC has owned 24.99 % of the company since January 2018 and nominates four board members to be elected to our Board of Directors by all shareholders. On the business side, we continue to have good cooperation as well, with joint research and development efforts. SABIC is one of the world's leading petrochemical companies, and we are a leader in catalysts, which means that they are one of our largest customers in this area.

With regard to the strategy, was the suspension of the planned joint venture with SABIC not a deviation from your strategic path?
No, definitely not. Our path is to focus and grow the company to be a pure specialty chemicals player in the industry, thereby creating value for all our stakeholders. After exploring the option to grow in the area of High Performance Materials, we decided to suspend our plans in the best interest of all our shareholders. Additional information showed that the business performance was more volatile than we thought and that there would be less synergies than expected. Taking this into account, we were unable to agree on a reasonable price in a difficult market environment.

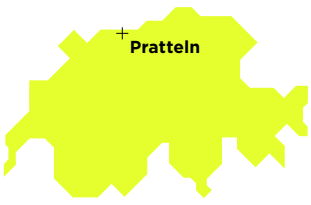
From the outside, the strategy implementation is sometimes perceived as a zigzag course…
I believe that focusing on your strength to create value is the right strategy. We need to have the right balance between the focus on performance and allowing the businesses to develop by dedicating resources for the long term. Take, for example, Care Chemicals. We spent a lot of resources since 2008, but we achieved a very nice position now. Personal Care and Crop Solutions are very rewarding to us. We have been outpacing our competitors regularly for the last four to five years.

What is crucial for success here?
Ultimately, it is about combining innovation and proximity to our customers, by bringing our R&D and technology to them. Our new Consumer Care Innovation Center in New Jersey, USA, and our Hair Care Competence Center in São Paulo, Brazil, are good examples. We are also building an innovation center in Shanghai to develop more locally tailor-made products with benefits for Chinese customers.

What concrete goals has Clariant set for itself next?
Through the successful divestments, the resilience of the portfolio, and some important additional efficiency measures, we are becoming one of the best-positioned specialty chemical companies in the world. Together with a deleveraged balance sheet, we are in the best position to grow the company as a next step.

Finally, a personal question. You recently announced that you would be leaving Clariant to take up a new professional challenge. Is now the right time, while the company is in a transformation process?
When is the right moment? I look back on 14 years as CFO – and 29 years in the company – with a great sense of pride and serenity. Clariant has established itself as a core player in the industry and is now on a very interesting course of specializing in businesses where it is strong and where it can grow by innovation and sustainability. We have great momentum, and the people are very motivated. It has been exciting to work in and shape this environment, and I have met tremendous people along the way. After all those years, I made the decision to accept a new challenge but will continue to look at the future success of Clariant.

SWITZERLAND



IDEA TO MARKET

2. Intellectual capital

With a new organizational structure, cutting-edge innovation formats such as the Innovation Engine (iEngine) and the Innovation Garage (iGarage), and the introduction of a strategic innovation process, Clariant considerably strengthened its innovation capabilities in 2019. In addition, Clariant continued to leverage digitalization to create innovative business models and gain efficiency.

OVERVIEW INTELLECTUAL CAPITAL

	Continuing	Discontinued	**Total 2019**	2018	Change in %
Patents (year-end)	>5400	>1100	**>6500**	6700	–
Trademarks (year-end)	>6900	>2100	**>9000**	8900	–
Active innovation projects	>315	>60	**>375**	>375	–
Of which Class 1 projects with double-digit million sales potential or of strategic relevance	>60	>5	**>65**	>70	–
Scientific collaborations			**>125**	>125	–

2.1. Innovation and technological advances

Clariant achieves its growth targets by developing innovative and sustainable products based on state-of-the-art technologies. → **PAGE 56**

In 2019, Clariant grew slightly below 3 % through innovation projects, achieving its 2 – 3 % target and realizing 1 – 2 % sales growth from Top Line Innovation alone. For continuing operations only, the young and innovative products of Clariant grew by more than 3.5 %. This is the result of a continuous commitment and effort to understand the challenges that customers are facing and apply Clariant's expertise to deliver better and more sustainable solutions. Research & Development spending in 2019 was CHF 207 million, compared to CHF 209 million in 2018. As a share of sales, R&D spending was 3.2 %, maintaining the level of 2018. The overall number of active projects in the innovation pipeline remained stable, compared to 2018. The innovation formats iEngine and iGarage both contributed to maintaining continuous and stringent innovation portfolio management.

INNOVATION AND TECHNOLOGICAL ADVANCES

	Continuing	Discontinued	**Total 2019**	2018	Change in %
Growth through innovation (%)[1]	>3.5	<0.5	**<3.0**	>3.0	–
Research & Development expenditures (CHF m)			**207**	209	–1
Research & Development expenditures as share of sales (%)			**3.2**	3.2	–

[1] Contains the contribution to growth of the innovation portfolio from both Top Line Innovation and Life Cycle Innovation. Potential cannibalization of existing sales by Life Cycle Innovation has not been excluded.

State-of-the-art equipment and infrastructure in eight R&D Centers and over fifty Technical Centers formed the basis for successful innovation. In 2019, Clariant increased the number of employees who were trained as innovation belts from 290 in 2018 to over 325 – a key factor in ensuring a well-filled project pipeline and maintaining the high number of Class 1 projects (those with a double-digit million sales potential).

In 2019, Clariant lost some patents, due to the divestment of Healthcare Packaging, leading to a total number of more than 6 500 patents at year-end. The

Innovation Project Classes

Class 1 projects have an estimated annual market value of CHF 10 million or more and are managed by Innovation Black Belts. Class 2 and Class 3 projects are led by Innovation Green Belts or trained Class 3 project leaders.

number of trademarks increased from 8 900 in 2018 to over 9 000 in 2019, despite the divestment of Healthcare Packaging. This was mainly due to the filling of gaps in certain countries and the creation of new trademarks.

2.1.1. New organizational structure fosters strategic innovation

In 2019, Clariant restructured its Group Technology & innovation organization by integrating Clariant Innovation Excellence (CIX) and New Business Development (NBD) into the new unit, »Innovation Excellence & Business Incubator.« The unit will continue to provide state-of-the-art innovation and capacity-building tools, including Innovation Green Belt and Innovation Black Belt trainings, innovation workshops, and portfolio management support. The Business Incubator provides a platform for incubating and accelerating innovations before they are integrated into a Business Unit.

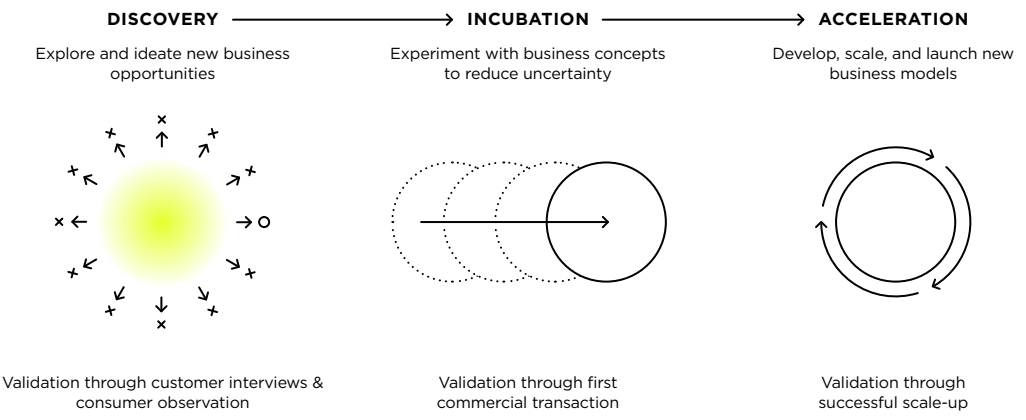
2.1.2. Innovation formats support discovery and incubation

As part of the Business Incubator, Clariant conducts iGarages to develop innovative growth options that are adjacent to already served markets but cannot be addressed with the existing Idea-to-Market toolbox.

→ PAGE 59

New strategic innovation process: Discovery, incubation, acceleration (DIA)

Clariant's newly established strategic innovation process goes beyond the current Idea-to-Market process and consists of three phases: discovery, incubation, and acceleration. The DIA process aims to increase speed and establish new business in environments full of unknowns. Specialized teams with different mindsets, agile project management, and lean start-up methodologies help to generate fast learnings and to either confirm assumptions or change the business idea. Once an idea proves viable, Clariant can draw on its production network and market access to commercialize the product with short lead times.



In 2019, Clariant completed four iGarages based on market opportunities from various Business Units. The iGarage project for the Business Unit Catalysts focused on a specific market segment with significant growth potential, but that was difficult to access. The iGarage team consisted of R&D, marketing, and sales experts from the Business Unit as well as two members of the Business Incubator. In a first step, the team explored the targeted ecosystem, technological requirements, and the needs of potential customers and partners. Then, market-tested business models were designed, including differentiated value propositions, viable technical concepts, and go-to-market strategies that will allow the Business Unit to tap into opportunities for further growth. Finally, the team defined and started the R&D activities, developing new solutions for identified white spots.

While the iGarage develops strategic innovation growth options at the discovery and early incubation stages, the iEngine is used in the scout phase. Since the start of the iEngine in 2018, the format has been well received by employees and actively used whenever obvious solutions to technical challenges do not exist or have proven unsatisfactory. iEngine workshops are generally well attended and usually generate more than 30 ideas per session. In 2019, six iEngines were conducted, and the identified technology options are being pursued as part of various Idea-to-Market projects.

2.1.3. Gaining efficiency and speed with High-Throughput Experimentation (HTE)

In 2019, Clariant continued to focus on accelerating the innovation process by exploiting the potential of the High-Throughput Experimentation (HTE) method.

Due to the large number of requests from Business Units received by the HTE laboratory in Frankfurt, Germany, Clariant opened another facility in Houston, Texas, USA, in 2019. The new laboratory will enhance the innovation capabilities in North and South America. Initial work with the Business Unit Oil and Mining Services focused on applications such as pour point depressants, hydrate inhibitors, asphaltene inhibitors, corrosion inhibitors, and scale inhibitors used in the oil and gas industry. In 2020, the existing laboratory in Frankfurt will be enhanced, and another facility in Shanghai is planned to be operational by 2021.

2.1.4. Lab Excellence program

In 2019, the Lab Excellence program (LabX) was successfully implemented in the Biotechnology, Chemistry & Materials, and Process Technology Platforms. In these areas, project lead times from discovery to scale were reduced by 25 %; the number of lab trials per week increased up to several 100 %, and the average waiting time before the start of an experiment decreased by more than 80 %, while maintaining an acceptable workload for the team. Introducing agile working methods has helped to enhance the operational performance of the R&D laboratories.

High-Throughput Experimentation (HTE)

HTE uses automation and robotics, miniaturization, as well as parallelization to plan and execute experiments at increased speed and optimized resource consumption. It makes use of intelligent design and enables Clariant to find correlations that are undetectable using traditional methods.

After successful demonstration of the power of LabX through the pilot projects, Business Unit Catalysts launched LabX in its major R&D sites in Louisville, USA, and Heufeld, Germany, supported by the LabX core team. After analyzing their processes in a cross-functional value stream design workshop, R&D teams identified substantial areas for improvement, which will be addressed by Kaizen events at the sites. One of the goals is to reduce the cycle time from sample preparation, characterization, and performance testing. Having a shorter cycle time leads to quicker development and commercialization of new products. »Waste« in processes is eliminated; resources are utilized more effectively; and the overall innovation process is accelerated. The LabX program supports Clariant's strategy of profitable growth.

Kaizen event

Kaizen is Japanese for »improvement« or »change for the better.« A kaizen event is a mini LeanSigma project completed over a short period of three to five days.

In 2020, Clariant plans for its R&D laboratories to contribute even more to value creation, by continuing the LabX program and rolling out an optimized end-to-end process in Idea to Market to other Business Units.

2.1.5. Electronic Lab Notebook

Clariant leverages the potential of digitalization to gain efficiency in the R&D and innovation system with the Electronic Lab Notebook (ELN) – a cloud-based, digital knowledge repository that stores Clariant's scientific know-how by capturing all relevant information along the innovation chain. It consists of three core elements: a chemical inventory management system to backtrack and manage reagents used in laboratories; a study notebook with templates to enter R&D data; and analysis and visualization tools to analyze and correlate experimental data.

The ELN was developed in partnership with the scientific informatics company Dotmatics. In 2019, Clariant introduced the chemical inventory management system and the study notebook application at seven German facilities across all Business Units (excluding discontinued operations) and Group

Turning R&D into a lean organization with LabX

Clariant initiated the Lab Excellence (LabX) program in 2017 to turn R&D into a lean organization. The first step in implementing the LabX approach was to understand how the laboratories work and how projects are executed in order to identify areas of improvement. This was done in an end-to-end value stream design workshop in which issues that decrease efficiency were identified. »End-to-end« entails focusing on the entire Idea-to-Market chain, starting with the demand from a customer and ending with the fulfillment of their requirements. Identified pain points are addressed in several Kaizen events – five-day workshops that involve a Kaizen Champion, a leader, and a dedicated team that offers all the expertise needed to develop and implement improvement measures. This approach heavily involves employees, thus creating ownership for identified improvement measures.

Technology & Innovation. At the end of 2019, the chemical inventory management system was also introduced at five North American sites. For 2020, Clariant plans to roll out all modules to sites in Brazil, USA, China, Japan, and India.

2.1.6. Open Innovation initiative

The Open Innovation (OI) initiative supports the Business Units in identifying collaboration partners around the world, ranging from large corporations to start-ups, universities, and other research institutions. Important elements of OI are engaging technology scouts, promoting scientific partnerships, crowdsourcing technology solutions through commercial OI portals, and pitch days.

OI, which is managed by the new unit »Innovation Excellence & Business Incubator,« generated more than 300 technology proposals in 2018. In 2019, the total number of proposals grew to over 400. This increase is due to the fact that many strategic projects, such as iGarages, the technology screening for Class 1 projects, and the plastics recycling initiative, started using OI. The number of leads became so large that many proposals from 2018 are still pending consideration within the responsible Business Units. Some of the proposals did not materialize due to negative proof of concepts, problems with intellectual property, mismatching business models, or suboptimal cost perspectives. However, by facing these hurdles, Clariant learned how to better identify and select potential partners.

Pitch Day

More than 15 start-ups participated in Clariant's first »Pitch Day.« They pitched their ideas to Business Unit Industrial & Consumer Specialties. Collaborations with two start-up companies are ongoing for further technology testing.

Clariant's objective for OI is to create better innovations and accelerate time to market by collaborating with outside partners with market-leading technologies. In 2019, along with facilitating more scouting activities across regions, OI focused on executing the best concepts through a series of testing, development, and implementation processes, aiming to increase the number of success stories.

2.1.7. External collaborations

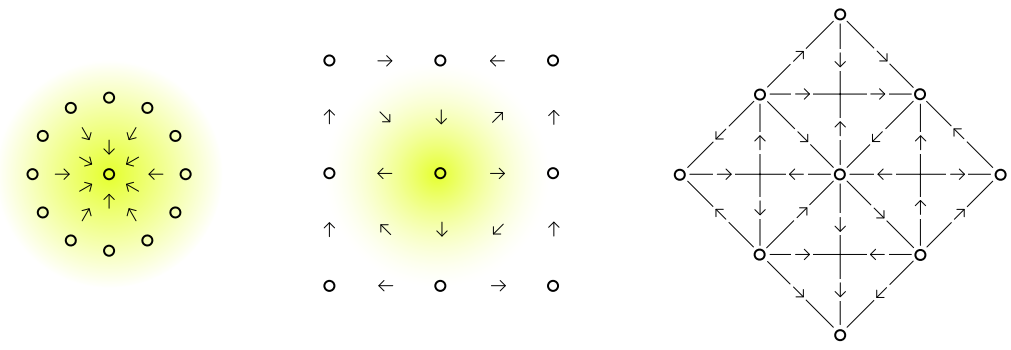
For Clariant, partnerships with external parties are vital to stimulate innovation. From the numerous external collaborations Clariant was involved in, in 2019, Clariant engaged in more than 125 scientific partnerships, which is comparable to the number in the previous year. The OI initiative contributes significantly to these partnerships and has led to success stories such as Clariant's collaboration with the Barcelona Supercomputing Center (BSC).

BSC specializes in high-performance computing (HPC) and hosts MareNostrum, one of the most powerful supercomputers in Europe. In 2018, Business Unit Oil and Mining Services and Group Technology & Innovation started a collaboration with BSC to conduct molecular modelling studies that support the development of high-performing anti-agglomerants that are used to prevent gas hydrate formation, which is a huge risk to pipeline flow assurance in deepwater oil and gas exploration. There is a growing need to innovate high-performance solutions that allow the oil and gas industry to push the boundaries into reserves that are deeper, hotter, more saline, and under higher pressure. After the successful establishment of computational methods, the collaboration will be used to screen new chemical formulations that can then be tested in the new HTE laboratory in Houston, Texas. Other examples of successful external collaborations that materialized in 2019 are the partnership with the British start-up Polymateria regarding biodegradable and compostable plastics → PAGE 186 and the partnership between Clariant, ExxonMobil, and REG Life Sciences (acquired by Genomatica over the course of the project) to evaluate the potential use of cellulosic sugars from sources such as agricultural waste and residues to produce biodiesel.

To benefit more systematically from partnerships with external parties in the future, Clariant is convinced that collaboration needs to be extended along and across value chains. The goal is to create innovation ecosystems that include suppliers, academia and research institutes, technology providers, industry partners, and regulators, as well as public funding agencies and NGOs. Clariant considers its OI initiative to be the right vehicle to further pursue this goal in the future.

Innovation networks: Overcoming internal and external boundaries[1]

With the advancement of communication technologies (e.g. cloud computing, internet of things, big data, social media) Open Innovation entered a new paradigm known as OI 2.0. This enriched the innovation ecosystems and fostered co-creative collaboration between all actors in a quadruple helix system (governments, academics, companies, and citizens), spanning organizational boundaries well beyond normal licensing and collaboration schemes. To keep up with OI 2.0, Clariant is introducing pragmatic approaches to accelerate in-house innovation efforts.



CLOSED INNOVATION → **OPEN INNOVATION** → **INNOVATION NETWORKS (OI 2.0)**

Inward-looking innovation | Collaborative innovation | Cross-organizational innovation

[1] EU Open Innovation Strategy and Policy Group (OISPG), 2013: Open Innovation 2.0: A New Paradigm

Internal boundary for innovation
Idea/innovation/inspiration
→ Flow of information
— Connection e.g., digital data

2.1.8. Sustainability screenings

Sustainability is an integral part of the innovation process and a fundamental prerequisite for all new major product developments. Corporate Sustainability Assessments, as defined under Clariant's Portfolio Value Program (PVP) and known as PVP screenings, are systematically carried out not only for the entire product portfolio but also for Clariant's innovation project pipeline. → PAGE 149

GRI Online Report
Management Approach Innovation and Technological Advances → reports.clariant.com/2019/gri

2.2. Digitalization

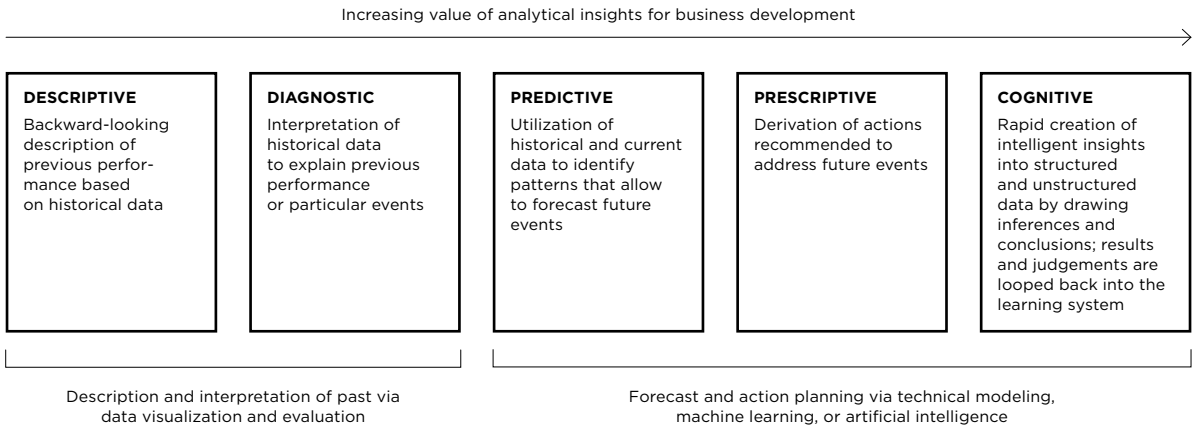
2.2.1. A two-way approach

Digitalization is a megatrend reshaping many areas of the chemical industry. Competitive pressure, investments in R&D, and digitizing operations are on the rise, requiring that Clariant also leverage digitalization to gain efficiency and create innovative business models. Clariant's cross-functional digital program, Digital4Clariant, helps the company keep up with the speed of this transition. In 2019, Clariant further developed the program's three core workstreams: »New Business Models,« »Big Data and Advanced Analytics,« and »Digital@Operations.« By implementing internal projects as well as customer-facing services, Clariant is leveraging all three workstreams to support the five pillars of its corporate strategy by improving decision-making with data-driven mathematical models and algorithms. → PAGE 28

2.2.2. New digital business models

In 2019, the workstream »New Business Models« incubated several minimal viable products and brought new services into the market progressively for testing. For example, Navigance™, Clariant's Munich-based start-up, offers a cloud-based solution for providing real-time recommendations for optimal control parameters to help producers optimize chem-

001 **ANALYTIC DISCIPLINES IN DATA SCIENCE**



ical processes. Navigance™ uses artificial intelligence to combine data from customer plants with the expertise of chemical process experts. Rolled out in 2019, the service increases production volume and efficiency of formaldehyde production plants and serves methanol producers.

Chemberry™, the online ingredient-sourcing platform launched in 2018, continued its impressive growth in 2019. With over 35 000 ingredients listed from more than 550 suppliers, Chemberry™ has become one of the most comprehensive ingredient platforms in the Personal Care market. In 2019, Chemberry™ expanded its coverage by including ingredients for the Home Care market and entered several strategic partnerships that will help the platform become the central node of the chemical industry ecosystem and the go-to platform for Consumer Care brands and suppliers.

Chemberry™

The online platform enables customers to easily find chemical ingredients. It includes products from all relevant chemical suppliers and is operated independently to ensure confidentiality and neutrality. → chemberry.com/ourSolution

In 2019, Clariant also launched InstaColr™, a backward-integrated color-matching solution based on digital formulation algorithms that completely changes the value proposition and go-to-market approach of Business Unit Masterbatches. Digital formulation solutions pave the way to seamlessly link the front end to Clariant customers with the support services in R&D and Business Units. In the years to come, integrated solutions will combine digital formulation and application development, data science, High-Throughput Experimentation, and lab robots to capture efficiency and growth potential.

2.2.3. Using data science at scale

The workstream »Big Data and Advanced Analytics« uses data science methodologies to complement Clariant's chemical competencies and offers process improvement potential. While the use of descriptive and diagnostic analytics is already widespread

There's an app for that – InstaColr™

Digitalization has fundamentally changed the way we shop. A combination of intuitive apps, reliable e-commerce, and ultra-fast delivery have come to be the norm in online retail. In the chemical industry, it's anything but. However, Clariant's Business Unit Masterbatches is set to change that with InstaColr™, an entirely new service coming out of its Digital@ Masterbatches initiative. InstaColr™ enables on-the-spot color-matching for customers. The first Minimal Viable Product (MVP) was developed and brought to market in about six months by Clariant's dedicated digital team in Singapore. The front-end is an app that runs on the Apple iPad, which Clariant's sales representatives use in talks with customers. It allows for the matching of desired colors and the specification of technical and business requirements on the spot via an intuitive interface. The cloud-based InstaColr™ engine immediately calculates optimized product formulations, taking into consideration the customer's specific application needs and local regulatory requirements. InstaColr™ then returns several alternatives from »best match« to »most economical match« from which the customers can chose. With a streamlined process running in the background, InstaColr™ immediately gives a binding quotation and all the relevant product stewardship data. Lab and sample logistics are linked in the background to InstaColr™, which ensures that the customer receives the corresponding color chips and samples within just a couple of days. InstaColr™ is already active throughout Southeast Asia, where more than 25 sales representatives have been trained and certified as InstaColr™ consultants. Customers provide overwhelmingly positive feedback, especially related to the on-the-spot adjustment opportunities, immediate pricing, and fast sample shipment. InstaColr™ will continue to be developed and rolled out gradually to the other regions over the course of 2020 and 2021.

throughout the company, Clariant also embarked on systematically using data science for predictive, prescriptive, and even cognitive analytics. In 2018, Clariant inaugurated a Competence Center for Data Science within Group Technology & Innovation (GTI) that focuses on data intelligence and process simulations. The Competence Center increases the speed and quality of digital and non-digital product and service developments, as well as process improvements, by improving evidence-based decision-making on inventory levels, cash management, or production-line operations. In 2019, Clariant continued to build the technical foundation for the use of data science at scale by implementing a data lake – a central data repository that facilitates access to data and information across the organization – and data science software.

2.2.4. Developing the digital operating model

In 2019, Clariant continued enhancing its Clariant Excellence approach with digital solutions, for example, by upgrading the Clariant Production System with a tailor-made digital assessment entirely run on internal resources. This enables production sites to systematically identify and implement measures that improve productivity.

As part of the »Digital@Operations« workstream, Clariant started developing and using robots to digitize transactional processes. For example, the monitoring of contract expiration dates in procurement is now handled automatically, and customer service was upgraded with chatbots that can answer the most frequent customer queries autonomously. In the future, Clariant plans to use robots for more intelligent tasks, such as the review of legal contracts.

2.2.5. Enhancing digital skills

Many of Clariant's job profiles increasingly require advanced digital skills. Therefore, the company is developing upskilling and reskilling measures in the area of data science and advanced data analytics. To enable more data-driven decisions, employee trainings now go beyond the general introduction to new tools and involve innovative training formats such as self-organizing learning groups and learning games, which encourage self-learning. Clariant also intensified the education of employees on agile project management methods and tools as part of both formal and on-the-job training programs.

Thanks to its collaboration with leading educational institutions and improvements made in the recruitment process, in 2019, Clariant attracted new employees with expertise in data science and digital business development, strengthening the digital skills of its workforce. → PAGE 48

To underscore its commitment to continuous learning, particularly in digital skills, Clariant joined the »Lifelong Learning Pledge« initiated by DigitalSwitzerland. This initiative offers every member of the Swiss workforce opportunities to enhance their existing skills with digital competences in order to stay competitive in the increasingly digitalized labor market.

GRI Online Report
Management Approach Digitalization
→ reports.clariant.com/2019/gri

MARKET TO CUSTOMER

3. Manufactured capital

Protecting customers, consumers, and the environment by providing safer and more sustainable solutions is one of Clariant's top priorities. In 2019, Clariant continued screening products as part of the Portfolio Value Program and further promoted its EcoTain® label. In addition, Clariant prioritized responsible procurement of raw materials and solidified its role as a sustainability leader by promoting the production of bio-based chemicals and biofuels.

OVERVIEW MANUFACTURED CAPITAL

	Continuing	Discontinued	**Total 2019**	2018	Change in %
EcoTain®-awarded products	24	3	**27**	24	12.5
Research & Development Centers			**8**	8	0
Technical Centers			**>50**	>50	0
Countries with production facilities			**38**	39	–2.6
Production sites	66	52	**118**	125	–5.6
Raw materials procured (in m t)	2.79	0.34	**3.13**	3.57	–12.3
Production (in m t)[1]	3.99	0.26	**4.25**	4.34	–2.1

[1] For 2018 and 2019, the production volume is based on a reduced reporting scope, which includes sites that are responsible for 95% of total production.

3.1. Product stewardship/sustainable chemistry

Clariant puts customer safety and the environment at the forefront of its solutions.

3.1.1. Global regulations and EU REACH

Product Stewardship enables compliance with global regulations and ensures compliant communication across the supply chain through efficient information and document management. To ensure the company

The Portfolio Value Program (PVP) and the EcoTain® Label

In 2012, Clariant developed the Portfolio Value Program (PVP) in cooperation with the Collaborating Centre on Sustainable Consumption and Production (CSCP), founded by the United Nations Environment Program (UNEP) and the Wuppertal Institute. The program is based on a thorough analysis of sustainability trends and needs, as well as on the input and views of external stakeholders. The PVP provides the overarching framework to develop Clariant's product and innovation project portfolio toward more innovative and sustainable products. At the heart of the PVP lies Clariant's ambition to steer the product portfolio toward solutions that add value through sustainability for customers and society, while also ensuring long-term profitable growth. Clariant continues to be inspired by the opportunities to raise the bar with respect to sustainability, which are brought about by societal changes, market trends, existing and future regulations, customer preferences, and stakeholder expectations.

Clariant uses the comprehensive screening of the PVP to further clarify the sustainability performance of its product portfolio with its distinguishing EcoTain® label. Products awarded the EcoTain® label must have best-in-class sustainability performance in at least one of the 36 criteria, offer benefits in several product life cycle phases, and not have any significant adverse environmental or social impacts. A corporate panel of experts challenges and awards flagship products with the EcoTain® label. By the end of 2019, 76% of the product portfolio of the continuing operations had been screened for its sustainability profile and 220 products were awarded the distinguishing label.

SUSTAINABILITY CRITERIA

36 criteria grouped into six categories are considered in the Portfolio Value Program (PVP) when screening the product portfolio for sustainability.

Performance

- Integrated sustainable business
- Performance

People

- Safe use, transparency, and information
- Addressing megatrends and societal needs

Planet

- Resource efficiency and environmental protection
- Raw materials and sustainable sourcing

complies with all relevant regulations and raises awareness on emerging regulations, Clariant monitors global regulatory developments, runs impact assessments, reviews its product portfolio, and supports business preparedness. Clariant's business compliance was confirmed in 2019 by several REACH enforcement and regulatory bodies in Belgium, Spain, and Germany.

Once all REACH registrations for existing chemicals are completed, Clariant will continue to register newly manufactured or imported chemicals in accordance with the EU REACH regulations and ensure that all product dossiers are kept up to date. Since the adoption of EU REACH in 2007, Clariant has submitted and updated more than 1 200 dossiers for chemical substances. With the focus of EU REACH regulation shifting toward dossier evaluation, Clariant is proactively reviewing all submitted dossiers and responding to potential requests for additional information from the European Chemicals Agency (ECHA).

Clariant is represented in various trade associations, such as the European Chemical Industry Council (Cefic) and the German Chemicals Industry Association (VCI), and has taken leadership roles in workstreams relating to chemical management. For example, Clariant contributed to the preparation of the Cefic REACH Dossier Improvement Action Plan launched in 2019, which provides a framework for REACH registrants to evaluate safety data previously submitted in REACH registration dossiers in steps.

EU REACH

REACH (Registration, Evaluation, Authorisation, and Restriction of Chemicals) is a regulation of the European Union adopted in 2007 to protect human health and the environment from potential risks posed by chemicals, while enhancing the competitiveness of the European chemical industry.

3.1.2. Portfolio Value Program (PVP)

As part of the PVP, Clariant continued to screen innovative products before commercialization and revise existing product screenings to ensure high screening coverage.

PRODUCT STEWARDSHIP/SUSTAINABLE CHEMISTRY

	Continuing	Discontinued	**Total 2019**	2018	Change in %
EcoTain®-awarded products	24	3	**27**	24	12.5
Cumulative number of EcoTain® products	171	49	**220**	193	14.0
Product portfolio screened for sustainability performance (sales %)	76			76[1]	–
Screened products meeting internal sustainability definition (%)	68			68[1]	–
Screened products not meeting internal sustainability definition (%)	8			8[1]	–
Product portfolio not screened for sustainability performance (sales %)	24			24[1]	–

[1] Figure restated for continuing businesses

In 2019, the total number of EcoTain® products increased, demonstrating how innovation fuels sustainability excellence and vice versa. The screening coverage of the continuing operations' portfolio was maintained at 76 %, reflecting Clariant's efforts to assess new products.

Clariant maintains roadmaps to uncover sustainability improvement opportunities in the product portfolio and drive innovation. Currently, these focus on reducing the use of certain hazardous substances in Clariant's product portfolio. The roadmaps typically promote alternatives that go beyond relevant regulations, which is particularly important in regions where regulatory action is lagging.

CUSTOMER TO CASH

In 2019, Clariant further strengthened its reporting capabilities to better link the financial performance of products with its sustainability performance. The results of the PVP financial reporting support decision-making that enhances both sustainability and financial performance.

Additionally, Clariant introduced sustainability designators that enable customers to identify products with key advantages, for example, for water savings or enabling circularity. Promoted products are identified based on the outcome of the product screenings and meeting the thresholds for each of the sustainability designators. → PAGE 184

3.1.3. EcoTain®

During 2019, the EcoTain® label was further promoted through the rollout of EcoTain® Partnerships – a standard for establishing value chain collaborations on sustainability that highlights the importance of partnerships to solve sustainability challenges. It also draws attention to outstanding collaborations on sustainability and shows appreciation to the employees who go the extra mile to deliver sustainable value. Moreover, Clariant advanced the development of possible EcoTain® Partnerships across its markets and value chains and further refined the concept. Clariant awarded 27 products the EcoTain® label, increasing the total number of products with proven sustainability excellence to 220.

GRI Online Report
Management Approach Product Stewardship/ Sustainable Chemistry → reports.clariant.com/2019/gri

3.2. Production volume

In 2019, the reported production volume decreased by 2.1 % to 4.25 million tons. Business Area Natural Resources continues to provide the largest share, with 2.97 million tons of produced goods, representing an increase of 0.7 million tons. This is mainly due to the different reporting scope that includes Business Unit Additives as of 2019. Production volume of Business Area Care Chemicals decreased by 0.02 million tons to 0.96 million tons. The production volume of Business Area Catalysis remained stable at 0.06 million tons. Overall, more than 39 % of the production volume is manufactured in plants with a certified ISO 50001 energy management system.

3.3. Raw material procurement

Due to growing demand from customers and consumers, an evolving regulatory environment, and increasing interest in the circular economy, renewable raw materials are gaining importance. Clariant supports the shift to renewable raw materials by promoting innovation in biofuels, bio-based chemicals, and feedstock. By doing so, Clariant strengthens its role as a sustainability leader in the chemical industry.

Clariant spent about CHF 4.2 billion on goods and services in 2019. Roughly CHF 2.6 billion were disbursed for raw materials from approximately 6 800 suppliers. Across all Business Areas, more than 20 000 different raw materials were procured, although 93 % of the purchase volume was made up of around 200 raw materials. In 2019, 24 % of purchased raw materials stemmed directly or indirectly from crude oil; about 21 % were derived from natural raw materials such as bentonite; and 6 % were made of renewable raw materials. The remaining materials were either base or specialty chemicals or non-chemicals.

In addition to promoting renewable raw materials, Clariant prefers to procure goods and services from local suppliers in order to support the economic development of the respective regions. That said, in order to opt for local raw materials, impeccable quality as well as technical and economic feasibility must be guaranteed.

RAW MATERIAL PROCUREMENT ACCORDING TO REGION[1]
in CHF m

	Continuing	Discontinued	**Total 2019**	2018	Change in %
Asia-Pacific	283	314	**597**	**672**	**–11.2**
Of which with local suppliers[2]	270	294	**564**	641	–12.0
Number of local suppliers[3]	1061	1539	**2422**	2527	–4.2
Europe	886	346	**1232**	**1340**	**–8.1**
Of which with local suppliers[2]	853	264	**1117**	1228	–9.0
Number of local suppliers[3]	795	788	**1416**	1514	–6.5
Latin America	202	60	**262**	**320**	**–18.1**
Of which with local suppliers[2]	149	26	**176**	213	–17.4
Number of local suppliers[3]	657	556	**1088**	1085	0.3
Middle East & Africa	49	50	**99**	**106**	**–6.6**
Of which with local suppliers[2]	28	26	**55**	57	–3.5
Number of local suppliers[3]	162	253	**395**	378	4.5
North America	338	114	**453**	**510**	**–11.2**
Of which with local suppliers[2]	320	99	**419**	464	–9.7
Number of local suppliers[3]	538	483	**979**	930	5.3
Grand Total	1758	884	**2642**	**2948**	**–10.4**
Of which with local suppliers[2]	1620	710	**2330**	2603	–10.5
Number of local suppliers[3]	3213	3619	**6300**	6434	–2.1

[1] Duplicate counts possible. One supplier may supply to continuing and discontinued operations.

[2] Raw material spending of Clariant production sites in this region

[3] Regional suppliers that supplied Clariant (production) sites

3.4. Production sites and innovation facilities

3.4.1. Developments in the production site network

By the end of 2019, Clariant operated 118 production sites in 38 countries around the world.

— Care Chemicals: To further enhance product quality, enable higher production yields, and improve process reliability at its ethylene oxide production plant in Gendorf, Germany, Business Unit Industrial & Consumer Specialties added a production line of alkoxylates and installed a new distillation column that will operate from 2020 onward. At its site in Bonthapally, India, the Business Unit inaugurated a new state-of-the-art wastewater treatment plant. → **PAGE 181** Further, the Business Unit started plant upgrade work at its site in Mount Holly, USA.
A plant at the site in Santa Clara, Mexico, was divested.

— Catalysis: Business Unit Catalysts announced a plan for significant expansion of the capacity of its maleic anhydride catalysts production facility in Panjin, China. The investment will further optimize the existing facility and enable the creation of a new state-of-the-art production line for Clariant's SynDane™ maleic anhydride catalyst.
— Natural Resources: Business Unit Oil and Mining Services expanded its infrastructure in Western and Sub-Saharan Africa, enabling copper, gold, and oil development activities. This supports the oil and mining industries in Algeria, Angola, Mozambique, South Africa, and Zambia. It also opened a new supply base in Bojonegoro, Indonesia, which enhanced operational efficiency and increased service levels for customers while providing improved safety, sustainability, and optimized supply chain performance. Business Unit Functional Minerals added a new production line for activated bleaching earth at its site in Yuncos, Spain. After opening two new facilities at its site in Zhenjiang, China, Business Unit Additives achieved full operational capacity for its additives AddWorks® and Ceridust® in 2019. In addition, the Business Unit advanced a new light stabilizer plant in Cangzhou, China, and capacity expansion of its Licocene® production in Frankfurt, Germany.
— Discontinued Operations: Business Unit Pigments opened a facility for high-end blue pigments for the automotive industry in Cuddalore, India. At its site in Pogliano, Italy, Business Unit Masterbatches launched a competence center for recycling by constructing a recycling miniplant that will become operational in 2020. → PAGE 186

3.4.2. Research & Development and Technical Centers

Clariant's strong innovation infrastructure consists of eight Research & Development Centers and more than fifty Technical Centers. The centers are distributed around the world, with locations in Europe, North and Latin America, China, and India.

In 2019, Clariant inaugurated a new Consumer Care Innovation Center in the New York City area, USA, to strengthen collaborative innovation with North America's consumer care brands. → PAGE 76 In addition, Clariant opened its third High-Throughput Experimentation (HTE) Laboratory in Houston, Texas, USA. The location is key as the new facility is the first of its kind supporting the Oil & Gas industry, offering new and sophisticated solutions for customers.
→ PAGE 103

People

Clariant's brand value People represents value creation that stems from human and relationship capital. This includes progress on the material topics of Talent Attraction and Development; Employee Engagement; Occupational Health, Safety, and Well-Being; Customer Relationships; Ethics and Compliance; Policy and Stakeholder Relations; Sustainability Performance in the Supply Chain; and Human Rights.

1. Human capital

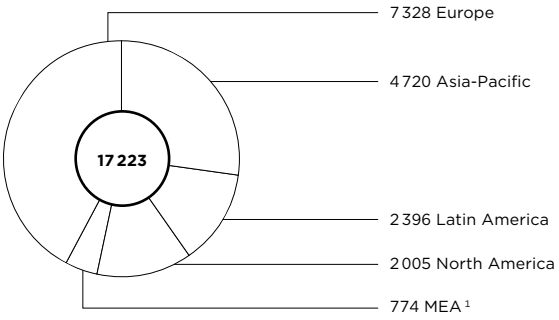
Clariant is committed to creating a collaborative working environment that focuses on its core value of appreciation. The company strives to attract and develop talents central to its future success and is committed to engaging with all its employees to realize the full potential of its diverse workforce.

Compared to 2018, the distribution of the workforce between regions remained almost unchanged, with minor increases in Europe (0.1 percentage points), Asia-Pacific (0.1 percentage points), Latin America (0.8 percentage points), and Middle East & Africa (0.1 percentage points), while in North America, the regional share of total FTE decreased by 1.2 percentage points. → **FIGURE 001**

The age and gender structure of Clariant employees also remained constant. In 2019, 14 % of employees were younger than 30 years, 59 % were 30 – 50 years old, and 27 % were older than 50 years. → **FIGURE 002** The total workforce consisted of 78 % men and 22 % women. The number of full-time equivalents declined by 3.8 % to 17 223 in 2019.

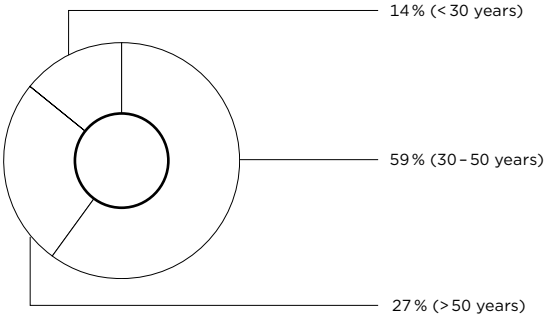
In 2019, Clariant strengthened its safety-oriented leadership culture and worked towards its goal of zero accidents through its multifaceted health and safety programs. This continuous focus resulted in a relatively stable lost time accident rate.

001 **FTE BY REGION**



[1] Middle East & Africa

002 **AGE DIVERSITY**



OVERVIEW HUMAN CAPITAL

	Continuing	Discontinued	**Total 2019**	2018	Change in %
Total staff (in FTE)	11941	5282	**17223**	17901	–3.8
Employees (in FTE)	7510	2649	**10159**	10405	–2.4
Male	4939	1955	**6894**	7115	–3.1
Female	2571	694	**3265**	3290	–0.7
Workers (in FTE)	4431	2633	**7064**	7496	–5.8
Male	4065	2538	**6603**	6890	–4.2
Female	366	95	**461**	606	–23.9
Number of people hired	1303	267	**1570**	2142	–26.7
Male	870	210	**1080**	1453	–25.7
Female	433	57	**490**	689	–28.9
Number of people who left the company	1374	443	**1817**	2047	–11.2
Male	961	361	**1322**	1515	–12.7
Female	413	82	**495**	532	–7.0
Turnover rate (%)			**10.3**	11.1	–
Number of employees in the local, regional, and global talent pools	949	242	**1191**	>1000	–
Global management positions (ML 1–5) filled with internal candidates (%)	84	96	**87**	84	–
Total training hours	167150	38711	**205861**	234240	–12.1
Number of training participants	10034	3857	**13891**	15791	–12.0
Training hours (Ø per participant)	16.7	10.0	**14.8**	15	–1.3
Number of employees with standardized performance management process	7458	2605	**10063**	10350	–2.8
Staff in Research & Development	>960	>90	**>1050**	>1100	–
Lost time accident rate (LTAR; accidents with at least 1 day lost/ 200000 work hours)	0.15	0.13	**0.15**	0.14[1]	7.1

[1] Restated due to one reclassified injury, which was not considered by the statutory insurer as an incident but determined to be a personal health issue.

1.1. Talent attraction and development

Clariant considers talent attraction and development a central factor in future business success. To support this priority, the company follows a structured approach, using its MySuccess platform to integrate all Human Resources processes from recruitment and onboarding to learning, talent and performance management. In 2019, Clariant implemented a broad range of projects along the entire employee journey to realize the full potential of its workforce.

TALENT ATTRACTION AND DEVELOPMENT

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Clariant strives to attract people who not only meet the defined role requirements, but also fit with its values. In 2019, Clariant hired 1570 new employees (490 women and 1080 men) to support its profitable growth strategy. With 34.6 % of new hires, Europe accounted for the largest share of new employees, followed by North America, which accounted for 27.6 % of new hires.

Clariant's performance management process ensures that strategic business objectives are translated into the employee's day-to-day activities. In 2019, 10063 employees followed a standardized performance management process.

Overall, 13891 employees participated in a training recorded in the central learning management system, for a total of 205861 training hours. This represents a reduction of around 12 % compared to 2018 and can mainly be attributed to the global data privacy training conducted in 2018, which led to an extraordinary number of training participants and hours. The average hours per employee that engaged in training remained stable at 15 hours per employee.

More than 1600 talents were discussed in 60 talent reviews across the organization, and concrete development steps and career measures were defined and will be implemented in 2020. The reward for Clariant's systematic talent management activities is a very high talent retention rate of 93 % in 2019, which is 2 percentage points lower than in 2018. Clariant promoted internal candidates into 87 % of senior management positions and filled 90 % of group management positions with the internal population.

1.1.1. Employer branding and recruiting

Since 2018, Clariant has enhanced its recruiting of highly skilled people that can support the company into its digital future. It hired a Digital & IT Talent Acquisition Specialist whose primary mission is to engage in the business-critical hunt for digital talents. → PAGE 48

Clariant also rolled out a targeted digital campaign via the Asian social network WeChat. In 2019, Clariant increased its follower base by building a network of potential candidates and regularly received spontaneous applications from people with diverse skillsets and backgrounds. In 2020, Clariant will further define its brand identity on WeChat and enhance the integration between the social network, Chinese job boards, and the internal performance management platform in order to improve the user experience.

WeChat

The Chinese messaging, social media, and mobile payment app has more than one billion active users per month.

In 2019, Clariant also expanded the rollout of its digital interviewing platform, which was introduced in 2018. The platform facilitates the application process for candidates from around the world, allowing them to record and upload their video interview anytime and anywhere, saving time and travel expenses. In the pilot region Asia-Pacific, more than 70 % of hiring managers used the tool to conduct interviews and virtually meet candidates. Feedback collected over the course of 2019 revealed that the platform was perceived as beneficial and user-friendly, prompting Clariant to further promote its adoption in Europe and North America.

1.1.2. Key position placement and succession planning

Clariant maintains a strong talent pipeline and a robust succession planning system in order to fill key roles according to a transparent set of criteria. In 2019, this system was complemented with clearly defined criteria for senior management position placements and the establishment of succession planning committees. In addition, Clariant's performance management tool was further enhanced, allowing the Business and Service Units to access better statistics about their talent pools in order to predict future gaps and take measures accordingly.

Another important element in strengthening Clariant's talent management approach was the launch of »Talent Management Fundamentals« – a new training program for people working in Human Resources across all regions that provides knowledge of talent management topics, such as succession planning, capability development, or performance assessment, and assures global talent management standards.

Clariant's assessment center and capability development program provides aspiring leaders with clarity on competence requirements for various job levels and offer an assessment to identify development opportunities at organizational and individual levels. In 2019, around 90 employees from operational functions, Human Resources, and Finance attended a competency assessment.

To secure a stable talent pipeline for positions in the innovation organization, Clariant launched the Innovation Talent Management Review (ITMR) initiative in 2018. It is assigned to identify talents, develop key innovation skills, and assign innovation professionals to suitable Business Units. Since the inception of the initiative, 80 talents have been reviewed in this forum. As part of the program, Clariant also defined career paths for its innovation professionals and developed a learning curriculum focused on innovation-specific topics. So far, 50 roles were mapped and more than 60 proposals for learning measures, such as trainings and on-the-job learnings, were collected. The second ITMR was concluded at the end of 2019.

1.1.3. Strengthening commercial competencies

To strengthen commercial competencies, Clariant developed an advanced marketing e-learning module in 2018, which was rolled out in 2019. The three waves of the training that were implemented received very positive feedback, encouraging Clariant to continue this course offering in the future.

The advanced marketing module is complemented by »Manage for Growth,« a three-day program targeted at senior sales managers, which aims to strengthen their competencies for driving growth within their teams. After its rollout in 2018, Clariant conducted three editions of the program in 2019 in Europe, Asia-Pacific, and Latin America.

1.1.4. Training and development programs to enhance leadership skills

Clariant offers a wide range of formal and informal programs for high-potential employees. One example is the »Pioneer Program,« which was successfully concluded in 2019 for the third year in a row. A key element of the program is the presentation of a new business project, which can be further pursued as part of the program upon approval of the management committee of a Business or Service Unit. Based on the positive feedback from Business and Service Units to these presentations, four new projects were initiated in 2019.

In 2019, the Mentoring Program was revamped, and more than 50 managers were included in the pool of certified mentors. By the end of the reporting year, these mentors coached 30 employees. Other informal learning and development initiatives include learning communities, peer coaching sessions, and a coaching program led by an externally certified consultant that focuses on behavioral change.

Leadership trainings at Clariant

PIONEER PROGRAM

The Pioneer Program was established in 2017 to enhance organizational understanding as well as leadership and communication skills of aspiring leaders by exposing them to short-term assignments outside their area of responsibility.

MENTORING PROGRAM

In the Mentoring Program, younger professionals get the opportunity to team up with experienced leaders to strengthen leadership skills and encourage knowledge transfer across functions and age-groups. Since the inception of the program, more than 120 mentees participated in the program.

LICENSE TO HIRE

This training provides a toolkit for efficient recruiting and supports line managers in making the right hiring decisions. The program is offered to all hiring managers.

FRONTLINE LEADERSHIP TRAINING

This training is designed for production managers and shift leaders. It covers basic leadership instruments that enable managers to effectively lead and motivate teams and manage change. The interactive training is facilitated by a dedicated Learning Manager and repeatedly receives outstanding reviews from participants.

AUTHENTIC LEADERSHIP TRAINING

This intensive course focuses on communication skills necessary to be a successful and inspiring leader. The participants either attend the Executive Performance Training, which is designed for cross-functional groups of six people, or the Inspirational Leadership Creative Communication Program, which is open to larger groups.

TEAM EFFECTIVENESS PROGRAM

This program helps leaders apply measures that enhance trust within their team, improve the quality of decision-making, and strengthen the execution of commitments. The program was specifically designed to help leaders build high-performing teams.

These informal development initiatives are complemented by formal learning programs delivered by business schools, specialized training companies, and Clariant's internal experts. In 2019, a range of new formal learning programs was launched, including a »First-Time Leaders« coaching program for leaders and a »Clariant Excellence Manufacturing« program for managers in operational functions.

Clariant also continued to offer various well-established leadership trainings. These include, for example, the »License to Hire« program, which is offered to all hiring managers, and the »Authentic Leadership Training.« The »Frontline Leadership Training« was again conducted with more than 150 employees. Three modules were rolled out in Asia-Pacific and a brushup module was created to keep people engaged with the topics.

GRI Online Report
Management Approach Talent Attraction and Development
→ reports.clariant.com/2019/gri

1.2. Employee engagement

Clariant's people are at the core of the company's sustainable value creation. In developing, improving, protecting, and delivering Clariant's products and services, they are an invaluable competitive factor. Therefore, Clariant is committed to engaging with its employees on all levels, focusing on its core value of appreciation.

Clariant believes that diverse perspectives enable the company to capture market opportunities faster and foster a corporate culture that is conducive to innovation and growth. Thus, cultivating an inclusive work environment that values differences in experience, culture, nationality, ethnicity, age, gender, sexual orientation, and physical ability is vital for Clariant's business success. It also contributes to keeping the turnover rate at a stable level.

1.2.1. Supporting employees in times of change

After conducting the »Pulse Survey« for the first time in 2018, Clariant's Business Units thoroughly analyzed the results in 2019 and identified improvement areas through so-called »Team Barometers.« Team Barometers are short focus group surveys that allow for insights regarding the satisfaction with specific actions taken following the Pulse Survey, such as global team meetings to improve collaboration or a new newsletter that strengthens the communication between management and employees. This process, which was supported by employee engagement committees in several countries, will enable Clariant to better tailor the support and resources that employees need to achieve their goals.

Pulse Survey

In 2018, a representative and randomly selected sample of almost 2 500 employees was surveyed on topics as change, strategy, and collaboration. The company-wide survey will be conducted biennially.

Engaging and supporting employees is particularly important in the case of Business Units that are divested from the Clariant Group. Communicating openly and transparently with the employees from discontinued operations assures that they are well-informed of all developments. For example, Business Unit Pigments specifically focused on analyzing cultural aspects of their employee group and used the findings from the Pulse Survey to create insights that supported the development of a set of new business values.

1.2.2. Streamlining working conditions across the organization

Clariant ensures that the company stays open to new ways of working, offers a global workplace based on common values, and creates a sense of purpose for all employees across regions and age groups. To support these goals, a global Employment Policy was adopted in 2018 that describes what fair working conditions mean in daily practice, underlining the importance of employee collaboration. It clearly commits to equal development and promotion of all people across every organizational level and age group.

In 2019, Clariant introduced trainings on the Employment Policy for regional heads of Human Resources and – in an exchange with the local Human Resources teams – clarified its content and objectives throughout the organization. The policy was also included in the onboarding curriculum for new employees. To monitor implementation and adherence to the new policy, Clariant conducted an internal audit in all major countries by means of a survey and calls with regional and local heads of Human Resources as well as Human Resources consultants.

The objective for the coming years is to further raise awareness among business leaders and managers by introducing the policy in management meetings. Clariant will also assess the implementation of the policy and potentially adjust processes in certain regions to ensure full alignment with the global policy.

1.2.3. Expressing appreciation and promoting internal development opportunities

In 2019, Clariant decided to further formalize its Recognition Program. Besides its monetary recognition awards, Clariant established a global guideline to streamline noncash recognition awards and introduce appreciation award programs in countries where no such programs existed. Furthermore, a new function in the »MySuccess« Human Resources platform was implemented to support the nomination and administration process of the existing Special Recognition Award.

In addition, Clariant further developed its Referral Program and rolled it out in India and several countries in Asia-Pacific, Europe, and the Middle East & Africa. The expansion of the program was part of a concerted effort to advertise internal development opportunities to a wider audience, which was triggered by feedback from the Pulse Survey 2018. As a result, internal applications have increased by 30 % in 2019 as compared to 2018.

Recognition Program

The program includes monetary recognition awards for outstanding achievements and nonfinancial awards that encourage employees to recognize contributions of their peers and supervisors in the form of vouchers or presents.

Global Benefits Policy

The policy sets binding guidelines for benefits in regard to flexible working, healthcare, travel, well-being, retirement, accidents, and death, while leaving some flexibility to adjust programs according to country-specific circumstances.

1.2.4. Aligning benefit programs with the global policy

In 2018, Clariant adopted a Global Benefits Policy to establish a consistent framework for benefit programs across the organization. In 2019, Clariant documented the benefits offered in all countries to identify potential gaps between country programs and the global policy. Clariant also introduced an updated approval matrix, defining the process of reviewing or newly establishing local benefit offers.

GRI Online Report

Management Approach Employee Engagement
→ reports.clariant.com/2019/gri

CUSTOMER TO CASH

1.3. Occupational health, safety, and well-being

Clariant's zero-accidents goal underscores its commitment to protect and promote the health, safety, and well-being of all employees. In addition to multifaceted health and safety programs, such as AvoidingAccidents@Clariant, Clariant took further steps in 2019 to maintain a safety-oriented leadership culture, enhance health and safety precautions at its sites, and learn from past incidents through improved reporting.

OCCUPATIONAL HEALTH, SAFETY, AND WELL-BEING

	Continuing	Discontinued	**Total 2019**	2018	Change in %
Lost time accidents[1]			**28**	27[4]	3.7
Lost time accident rate (LTAR; accidents with at least 1 day lost/ 200 000 work hours)	0.15	0.13	**0.15**	0.14[4]	7.1
Number of recognized occupational illnesses	1	2	**3**	1	200
Number of work-related fatal accidents	0	0	**0**	0	0
Lost workdays (LWD) caused by occupational accidents	418	243	**661**	879[4]	– 24.8
Lost workday rate (LWDR)[2]	3.79	2.95	**3.43**	4.68[4]	–
Process safety event rate[3]	0.77	0.08	**0.48**	0.46	–

[1] Number of occupational accidents with at least one day's work lost

[2] Lost Workday Rate = loss of work days caused by occupational accidents in relation to 200 000 hours of work

[3] Process Safety Event = ratio of the number of Process Safety Events in relation to 200 000 hours of work

[4] Restated due to one reclassified injury, which was not considered by the statutory insurer as an incident but determined to be a personal health issue.

In 2019, the overall health and safety performance at Clariant's sites further improved, as illustrated by several performance indicators. Although there was a slight increase in occupational incidents, they were less severe than in the previous year. The number of lost time accidents slightly increased by 3.7 % from 27 in 2018 to 28 in 2019, with one case concerning a supervised (non-Clariant) worker. In addition, ten lost time accidents involved contractors, which is the same number as in 2018. 83 % of all recorded injuries required first aid measures; 13 % needed medical treatment; and 4 % of recorded injuries were restricted work cases. The most frequent injury types in 2019 were sprains, bruises, and contusions (25 %), open wounds (22 %), bone fractures (14 %), and chemical burns (14 %). Burn injuries accounted for 7 %. The remaining 18 % are due to unspecified injuries. In none of the cases was a limb lost or was the injury caused by a foreign body. No work-related fatal accident was recorded in 2019. The number of recognized occupational illnesses increased to 3, compared to 1 in 2018.

The lost time accident rate (LTAR) slightly increased to 0.15 accidents per 200 000 hours of work, as compared to 0.14 in 2018. The total number of lost workdays decreased significantly from 879 in 2018 to 661 in 2019, representing an improvement of 24.8 %. This reduction indicates that job-related injuries were less severe in 2019. Clariant also managed to reduce the lost workday rate to 3.43 workdays lost per 200 000 hours of work.

1.3.1. Raising awareness of safety challenges

The »Safety Moments« initiative, launched in 2017 to strengthen Clariant's safety-oriented leadership culture, was further developed in 2019.

To support managers with implementation across regions, an internal platform was launched to share customized handouts with relevant information for each employee group. As of 2019, managers can choose from more than 250 »Safety Moments« on the platform.

»Safety Moments«

Held at the beginning of each meeting, »Safety Moments« raise awareness for safety-related challenges and offer ideas for how to avoid or resolve them.

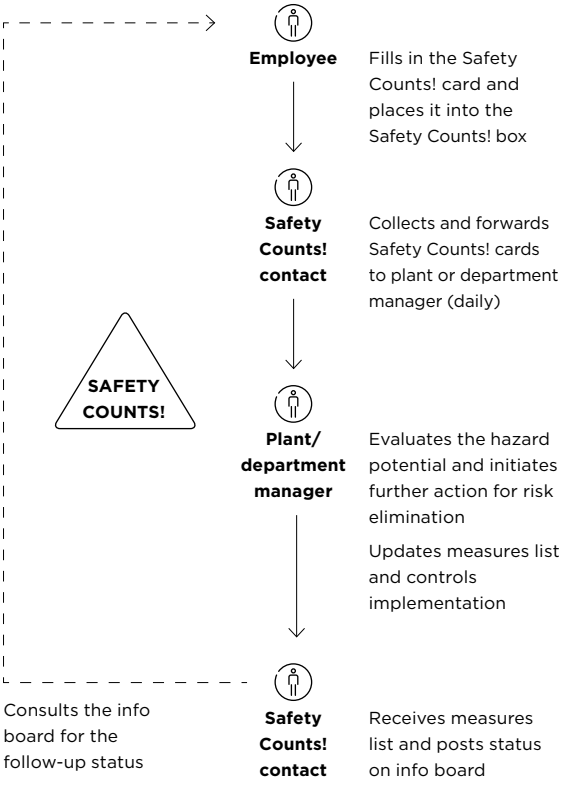
1.3.2. Reporting on safety

Clariant provides dashboards for occupational health and safety reporting. The company requires all sites to issue a report immediately after the occurrence of a lost time accident or a restricted work case – an incident that keeps the affected employee from performing routine functions of their job or from working at least one full work day. Investigation reports are mandatory for all cases. The number of cases decreased from 62 in 2018 to 49 in 2019.

Since 2018, Clariant reports Process Safety Events (PSEs) according to the criteria of the International Council of Chemical Associations (ICCA). The number of reported Process Safety Events increased to 92 in 2019, compared to 86 cases in 2018. The Process Safety Event rate increased from 0.46 in 2018 to 0.48 in 2019. In order to comply with the reporting requirements of the European Chemical Industry Council (Cefic), Clariant will also record process safety events according to Cefic criteria until 2020. From 2021 onward, only ICCA criteria will be applicable.

AvoidingAccidents@Clariant

Occupational health, safety, and well-being at Clariant means much more than wearing necessary safety gear. It is a commitment to tackle safety in a comprehensive way and ensure that every employee returns home after work as healthy as they arrived. The most effective way to prevent occupational accidents and achieve the goal of zero accidents is by implementing a set of cohesive management programs and leadership measures. AvoidingAccidents@Clariant is a global program that creates safe working environments, raises awareness of safety, and illustrates Clariant's focus on prevention. Since the start of the program in 2007, the lost time accident rate (LTAR) has declined from 0.92 to 0.15. Clariant's Safety Counts! cards also play an important role in ensuring health and safety, helping employees document critical safety situations and the circumstances that led to them. Improvement measures taken are shared locally, enabling the production teams to build best practices and promote a preventive mindset throughout the entire company.



1.3.3. Enhancing employee well-being

The promotion of workplace health and well-being is a local responsibility that each Clariant region addresses with tailored programs. In many countries, Clariant offers free psychological counseling and stress management trainings and runs employee assistance programs that analyze and evaluate mental strain, educate employees on mental health risks, and develop relief strategies with affected employees.

To protect its employees from work-related hazards, every workplace at Clariant is subject to a systematic, multi-step assessment that includes workplace ergonomics, illumination, noise, indoor air quality, humidity, and temperature. Clear minimum requirements are defined for each factor and measures to redesign the workplace are taken if these requirements are not met.

In addition, Clariant offers a range of benefits designed to enhance the work-life balance of its employees. These include the provision of fitness facilities and contributions to external fitness programs, flexible working hours and working from home arrangements, childcare facilities and contributions to external childcare, as well as support for employees who care for elderly family members.

GRI Online Report
Management Approach Occupational Health, Safety, and Well-being → reports.clariant.com/2019/gri

2. Relationship capital

In 2019, Clariant focused on building strong customer relationships and understanding customers' needs to gain valuable insights for sustainable value creation. As suppliers are critically important to Clariant's value creation, the company continuously analyzes spend effectiveness and reduces risk in procurement. In 2019, Clariant received the World Procurement Award for its integrative supplier risks management approach that helps suppliers meet the company's strict sustainability and risk expectations.

OVERVIEW RELATIONSHIP CAPITAL

	Continuing	Discontinued	**Total 2019**	2018	Change in %
Survey responses obtained from customer contacts			**n.a.**[1]	2791	–
Customer interviews			**404**	538	–24.9
Net Promoter Score (NPS) (%)			**n.a.**[1]	29	–
Raw material suppliers[2]	3503	3896	**6805**	7000	–2.8
Raw material supply base by spend covered by sustainability evaluations (%)	80	74	**78**	74	–

[1] Surveys are conducted every two years

[2] Duplicate counts possible. One supplier may supply to continuing and discontinued operations.

MARKET TO CUSTOMER

2.1. Customer relationships

Customer engagement, a key to profitable growth, lies at the core of Clariant's commercial strategy. After taking significant steps in recent years to turn Clariant from a product-driven to a customer-centric organization, in 2019, Clariant refocused on strengthening the customer experience to gain a better understanding of the customers' needs and develop tailor-made value propositions.

CUSTOMER RELATIONSHIPS

	Total 2019	2018	Change in %
Survey responses obtained from customer contacts	**n.a.**[1]	2791	-
Net Promoter Score (NPS) (%)	**n.a.**[1]	29	-
Customers who want to continue doing business with Clariant (%)	**n.a.**[1]	90	-
Customers who plan to intensify the business relationship (%)	**n.a.**[1]	77	–
Customer interviews as part of marketing and strategy initiatives	**404**	538	–24.9
Interviews with industry experts as part of marketing and strategy initiatives	**144**	150	–4.0
Number of Commercial Excellence projects	**33**	34	–2.9
Margin from Commercial Excellence (CHF m)	**24.7**	31.7	–22.1

[1] Surveys are conducted every two years

2.1.1. Deriving actionable insights from customer feedback

The significant number of customer interactions throughout the year reflects Clariant's focus on customer experience. In 2019, Clariant conducted 404 customer interviews (2018: 538) and 144 industry-expert interviews (2018: 150) as part of marketing and strategy projects, yielding valuable feedback on how to further improve its offerings and the entire customer journey. The decline in conducted customer interviews mainly reflects the absence of follow-up interviews to the customer satisfaction survey, which is conducted biennially.

In 2019, Clariant responded to the results of the 2018 customer satisfaction survey by implementing a program for strategic key account management. The company also addressed other areas for improvement, including complaint management and logistics. Since survey results differ considerably between regions and Business Units, improvement efforts targeted business-specific and regional challenges in order to further increase customer satisfaction and loyalty.

2.1.2. Moving towards true customer centricity

An ongoing dialog with customers enables Clariant to address customer needs along the entire value chain and to move towards true customer centricity.

Clariant's Commercial Excellence comprises more and more a mix of tailored initiatives that encompass, for example, customer strategy, pricing and commercial execution. In 2019, Clariant carried out 33 Commercial Excellence projects to improve the ability to find, keep and grow business opportunities with customers. The margin from these Commercial Excellence efforts was CHF 24.7 million in 2019.

With the launch of the Leading Marketing Organization in 2017, Clariant built the foundation to fully integrate marketing into each Business Unit by developing the required capabilities and tailoring resources to individual business needs. Dedicated marketing functions and the Marketing Advisory Board ensure the continuous development and delivery of marketing programs within and across the Business Units through training and the exchange of best practices. In 2019, Clariant created a marketing training curriculum in collaboration with the renowned Kellogg School of Management at Northwestern University in the United States. A total of 37 employees completed the program, strengthening commercial competencies across the organization.

The Marketing Excellence initiatives capture growth opportunities. In 2019, Clariant carried out 15 Marketing Excellence projects to identify subsegments of customers and gain in-depth knowledge of the customer decision journey. → **PAGE 60**

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2.2. Ethics and compliance

In 2019, Clariant remained committed to implementing its Strategic Integrity Roadmap. This roadmap, which is structured around the company's five pillars of leadership engagement, communication and training, risk assessment, standards and controls, and monitoring, lays the foundation for an ethical mindset and responsible behavior in the workforce. By carrying this commitment forward, Clariant's transformation from a rules- and principles-based organization into a value-based organization continues.

Clariant uses a comprehensive set of key performance indicators to measure effective progress toward the objectives of the roadmap.

ETHICS AND COMPLIANCE

	Total 2019	2018	Change in %
Questions and allegations issued via the anonymous Integrity Line	**116**	104	11.5
Fully or partially substantiated	**8**	29	–72.4
Closed during the year	**31**	72	–56.9
Percentage of Board members who received training on anticorruption (in %)	**100**	50	–
Percentage of relevant employees who received training on anticorruption (in %)	**85**	30	–

2.2.1. Revising the Code of Conduct to embed ethical behavior

As part of the standards and controls pillar of the Strategic Integrity Roadmap, Clariant's Code of Conduct guides employees through ethical commitments and supports them in reflecting on responsible actions and decisions. In 2019, Clariant revised the Code of Conduct, which applies to everyone working for Clariant. It includes new topics and commitments, a Q&A section, as well as scenarios that demonstrate these commitments in practice and emphasize the speak-up culture by strengthening its commitment to non-retaliation and the manager's responsibility. The updated Code of Conduct will be published on Clariant's website and will be rolled out throughout the organization in 2020.

2.2.2. Engaging people for ethics and compliance

To underscore the importance of ethical business practice, in 2019, Clariant continued the rollout of its Leader-led Compliance Sessions to the company's senior leaders and the commercial organization. These sessions provided a forum to discuss ethical dilemmas that emerge in daily business practice and share lessons learned and best practices. The dilemmas were based on scenarios addressed by the Code of Conduct, such as anti-bribery, antitrust, data privacy, conflict of interest, and discrimination and harassment. As observed in 2018, the Leader-led Compliance Sessions resulted in more requests for guidance from the Ethics & Integrity functions and increased the number of reports received through the Integrity Line by 11.5 % compared to the years that preceded the rollout of Leader-led Compliance Sessions.

Clariant continued to conduct its mandatory e-learning and in-person compliance trainings for all employees to prevent violations of the Code of Conduct. In 2019, roughly 6 000 employees received Code of Conduct training; 100 % of the Board members and 85 % of employees received training on anti-corruption; and approximately 8 200 employees successfully completed the e-learning on antitrust law.

In 2019, Clariant further strengthened communication regarding ethics and compliance, which included regularly publishing articles on the intranet regarding business ethics and sharing results from internal investigations in its ethics journal. Each communication illustrated a real case from Clariant's businesses and discussed how it was resolved. The articles caught considerable attention from employees, as indicated by above-average click rates.

2.2.3. Taking steps to reduce risk exposure

Since Clariant's businesses operate in countries with diverging risk profiles, an ongoing risk assessment is conducted to identify gaps in the ethics and compliance framework in different markets. In 2019, Clariant carried out additional compliance risk assessments in two Business Units. After this process revealed gaps, steps were taken to reduce the risk exposure. For example, the Economic Sanction policy will be revised and a provision regarding anti-money laundering will be added to the Anti-Bribery and Anti-Corruption Policy. In addition, employees working in compliance functions were trained on topics such as anti-bribery, data privacy, and general ethics and integrity.

2.2.4. Establishing the Data Privacy Program

In response to the General Data Protection Regulation (GDPR) of the European Union, Clariant implemented a Data Privacy Program in 2018. The program consisted of a policy framework that encompassed a Data Privacy Policy, a general Directive on how to process personal data, standardized operation procedures (SOPs) on the subject of Data Breach and execution of privacy rights, and a basic Data Privacy e-learning course to familiarize all employees with the principles of the data privacy policy. In 2019, Clariant focused on further implementing the framework, offering deep-dive sessions for more exposed functions, and introducing a second module to the Data Privacy E-Learning. Furthermore, Clariant continued its efforts to establish a personal data inventory and record of processing activities aligned with the GDPR requirements.

A Data Privacy Organization was also set up and internally certified after extensive training that covered the main topics for certified Privacy Professionals from the International Association of Privacy Professionals. The certified members of the Data Privacy Organization are responsible for creating awareness and building up the relevant knowledge throughout the company with a Train-the-Trainer approach.

2.2.5. Improving performance of the grievance mechanism

A key instrument to track Clariant's performance on ethics and compliance is the »Clariant Integrity Line,« which is used to report workplace-related issues and violations against the Code of Conduct. All employees are encouraged to confidentially report non-compliant behavior. In 2019, Clariant improved the Integrity Line by simplifying the process of raising a concern and by enhancing the reporting on multiple indicators. With improved assessments and classifications of allegation types, Clariant is able to gain better insight into potential misconduct and take preventative actions.

GRI Online Report
Management Approach Ethics and Compliance
→ reports.clariant.com/2019/gri

2.3. Policy and stakeholder relations

Clariant believes that maintaining an open and trustworthy dialog with all stakeholders and participating in relevant public policy developments are both important aspects of its corporate responsibility.

The engagement of Clariant representatives in trade associations and other platforms supports strategic alignment across the industry, provides an opportunity for exchange on industry perspectives and best practices, and brings forward Clariant's views and positions on various policy areas.

Clariant is a member of numerous interest groups and trade associations. At the international and regional level, these include, among others, the International Council of Chemical Associations (ICCA) and the European Chemical Industry Council (Cefic). At the national levels, Clariant is part of national business federations and chemical industry associations, such as the Associação Brasileira da Indústria Química (ABIQUIM) in Brazil, the China Petroleum Chemical Industry Federation (CPCIF) in China, the Verband der Chemischen Industrie (VCI) in Germany, and the American Chemistry Council (ACC) in the United States.

Clariant is also active in sectorial associations, such as in the bioeconomy field, and supports scientific and research associations, including SusChem, the European Technology Platform for Sustainable Chemistry.

As a responsible corporate actor that values transparency, Clariant publicly discloses its contributions to trade and business associations. → CLARIANT.COM/EN/COMPANY/CORPORATE-GOVERNANCE/PUBLIC-POLICY-DIALOG

The top three contributions Clariant made in 2019 were all for Europe-based associations. Together, they represented more than 50 % of Clariant's total membership costs. These were:

1. Verband der Chemischen Industrie e.V. – VCI, the German national association of chemical producers;
2. Handelskammer beider Basel, the Basel Chamber of Commerce; and
3. Scienceindustries, the Swiss business association for the chemical, pharmaceutical, and biotech industries.

Active engagement in these bodies helps Clariant maintain a continuous stakeholder dialog in strategically important fields. In 2019, Clariant has worked on a number of policy areas related to sustainable chemistry, climate change, circular economy, bioeconomy, and innovation policy frameworks.

GRI Online Report
Management Approach Policy and Stakeholder Relations
→ reports.clariant.com/2019/gri

CUSTOMER TO CASH

2.4. Sustainability performance in the supply chain

Clariant sources over 20 500 types of raw materials from approximately 6 800 suppliers. In 2019, CHF 2.6 billion was spent on raw materials, representing the largest portion of Clariant's total expenditure. Suppliers are critically important to Clariant's value creation and substantially impact the company's overall sustainability performance. Clariant uses a comprehensive set of criteria to select and manage suppliers, outsourcing partners, and service providers. Apart from economic and product-specific performance, these criteria include sustainability considerations such as environmental and safety standards, social and governance aspects, complaint management, working conditions, and respect for human rights.

SUSTAINABLE VALUE CHAIN

	Continuing	Discontinued	**Total 2019**	2018	Change in %
Number of new Sustainability Assessments shared [1]			**1 043**	1 491	– 30
Raw material supply base by spend covered by sustainability evaluations (%)	80	74	**78**	74	–
Number of new Sustainability Audits shared [2]			**309**	358	– 13.7

[1] Together for Sustainability supplier assessments
[2] Together for Sustainability supplier audits

2.4.1. Supplier Code of Conduct

In its Supplier Code of Conduct, Clariant outlines the strategy, scope, and expectations regarding the sustainability engagement and performance of suppliers. The Code is part of Clariant's General Terms and Conditions of Purchase, which are incorporated into every purchase order issued by procurement. Suppliers and their subsidiaries are required to agree and fully comply with the Code. → **CLARIANT.COM/EN/COMPANY/CORPORATE-GOVERNANCE/CODES-OF-CONDUCT**

2.4.2. Assessing sustainability in the supply chain

In order to ensure compliance with the Supplier Code of Conduct, Clariant relies on assessments and audits conducted by Together for Sustainability (TfS), which uses the internationally recognized EcoVadis platform. In 2019, TfS members assessed 1 043 suppliers for the first time, compared to 1 491 new supplier assessments in 2018. In total, there are more than 9 000 suppliers with an active assessment registered at TfS. Clariant maps completed assessments against

its supplier base to identify which portion of its total spend is covered by TfS assessments. In 2019, coverage was 78 %. With this, Clariant surpassed its goal of a direct spend coverage of 70 % by 2019. The number of new audits amounted to 309 in 2019, compared with 358 in 2018, adding up to a total of more than 1 800 audits conducted since 2012.

Based on TfS assessments, Clariant initiates Corrective Action Plans (CAPs) to reduce identified sustainability risks. In 2019, the 100 largest, previously not covered suppliers, and risk suppliers characterized by a TfS assessment score of less than 45, were selected for a TfS assessment or an improvement via CAP. Further, at the AchemAsia International Expo in China, TfS conducted a training for suppliers involving more than 300 participants, 20 of which were invited by Clariant.

In 2019, Clariant invited suppliers from outside of the TfS supplier pool to share valid (that is, not older than three years) assessment scorecards with Clariant in order to increase spend coverage and contribute toward the TfS impact KPIs.

2.4.3. Going beyond direct suppliers

Clariant is committed to extending its approach to sustainable supply chain management beyond its own suppliers to include tier-2 suppliers. Tier-2 supplier evaluation has been considered and discussed within TfS. In 2019, Clariant looked into the Sustainable Procurement score of EcoVadis to assess specific suppliers against expected minimum requirements (that is, a score above 45). The Sustainable Procurement score represents the capabilities of a supplier to assess its own suppliers, which are Clariant's tier 2 suppliers.

Together for Sustainability

TOGETHER FOR SUSTAINABILITY

Together for Sustainability (TfS), which was founded in 2011, included 22 members by the end of 2019. In 2019, TfS welcomed its first Chinese member, the Wanhua Chemical Group. Collectively, TfS members represent EUR 325 billion in turnover, based on published financial reports, and an estimated EUR 235 billion in spend. Clariant joined TfS in 2014 in order to assess and steer sustainability in its supply chain. As an active member, Clariant contributes to the initiative by providing sustainability performance assessments and audits of its own suppliers. In turn, it gains access to assessments generated and shared by other TfS members.

To ensure independence and consistency of results, TfS supplier assessments are conducted according to a standard approach by best-in-class service providers. The sustainability assessments consist of scorecards that provide an overall score as well as a sub-score for performance in the categories of environment, labor and human rights, ethics, and sustainable procurement. The on-site sustainability audits are carried out by globally renowned and specialized service providers.

2.4.4. Enhancing capabilities for sustainable supply chain management

Clariant organizes internal trainings every year to increase awareness and enhance its capability to evaluating sustainability performance in the supply chain. Opportunities for awareness-building include Lunch & Learn sessions, workshops, and exchange meetings. The trainings mainly target employees in Global Procurement Services (GPS) and associates in the Business Units. The toolbox that Clariant uses to promote sustainability with the company's suppliers is a particular focus of the GPS trainings. The trainings for the Business Units provide updates on GPS activities and inform them about sustainable procurement initiatives in other businesses.

2.4.5. Strong engagement leads to outside recognition

In the last few years, Clariant's supply chain sustainability performance has consistently received external recognition. In 2019, Clariant was honored by two organizations: EcoVadis granted the company the Sustainable Procurement Leadership Award for »Best Internal Stakeholder Engagement.« Further, riskmethods, a company that assesses supplier risks, awarded Clariant with the »TOP Sustainable Supply Chain Program.« The awards recognize excellence in sustainable procurement practices and distinguished Clariant as a best-in-class example, driving internal engagement to roll out a global sustainable procurement program. → PAGE 64

GRI Online Report
Management Approach Sustainability Performance in the Supply Chain → reports.clariant.com/2019/gri

2.5. Human rights

Clariant is firmly committed to protecting human rights during all phases of value creation within all Business Units. This obligation applies not only to Clariant's own business operations, but also to its entire supply chain and contracted workers. As a prerequisite for sound business governance and license-to-operate, Clariant expects its business partners to uphold the same high standards regarding human rights.

Clariant crafted a comprehensive framework of policies, guidelines, and processes to ensure the implementation of its human rights commitments. Clariant performed investigations in areas that were identified as high-risk during the 2016 human rights due diligence review.

In 2019, Clariant decided to join the Responsible Mica Initiative. This cross-industry initiative cultivates collaboration with local governments and NGOs as well as global stakeholders in the mica value chain, which include Clariant suppliers and customers. Clariant will be actively involved in the four action programs of the initiative: Traceability & Specifications, Legal Framework & Advocacy, Communication, and Community Empowerment.

To further advance ethical operations, Clariant developed a global employment policy in 2018 that addresses fair working conditions, discrimination, freedom of association, occupational health and safety, as well as child and forced labor. In 2019, particular emphasis was placed on trainings for employees working in the Human Resources departments in order to ensure global implementation. The policy's content and objectives were further propagated throughout the organization to ensure comprehensive understanding and acceptance. Clariant also conducted an audit in all major countries to monitor implementation and adherence to the policy. As of 2019, the policy is also part of the onboarding curriculum for new employees. In order to ensure proper comprehension, the policy was translated to local languages and communicated to employees. By embedding the topic in leadership and management meetings and developing a learning and training curriculum, Clariant will further raise awareness.

Finally, via the TfS platform and in cooperation with other companies, Clariant regularly assesses its suppliers in relation to child and forced labor, among other social, governance, and environmental topics.

GRI Online Report
Management Approach Human Rights
→ reports.clariant.com/2019/gri



Keep the Team Safe

+ **Occupational Health, Safety, and Well-being**

Eyes on the road

Clariant's Oil Services business has introduced a new technology to keep their truck drivers and the drivers around them safe.

Contribution to SDGs

This story is an example of Clariant's contribution to SDG 3 and SDG 9.

Read more on → PAGE 24



Trucking is a tough job. In the United States of America alone, there are over twelve million registered large trucks that collectively travel around 300 billion miles each year. While improvements in technology and training have made the job of driving these trucks a lot safer in recent decades, it still comes with both an inherent risk and a huge responsibility.

In an effort to keep its delivery, long-haul drivers and those around them safe, Clariant's Business Unit Oil and Mining Services has recently deployed a unique combination of new technology and training for its entire North American truck fleet. Collectively, Oil Services' drivers in the USA cover about 18 million miles on the road each year. »Still, driving is the most dangerous part of our job,« says Cody Applin, Regional Operations Manager for Oil Services in Midland, Texas. That is why, in 2018, the Oil Services business chose to install a state-of-the-art safety and transportation system called SmartDrive in all of its roughly 200 heavy commercial trucks. These trucks deliver products to customers out in the field.

»Driving out here can be tough, and it comes with a big responsibility because we often carry hazardous materials,« says Eduardo Rodriguez. He is the head driver for the Midland site, the business's largest operation in the United States. Coming up on thirty years behind the wheel, he joined Clariant six years ago and today trains the company's drivers and new hires. He's also on the road every single day.

The Oil Services site in Midland is located in the heart of the Permian Basin, an area of more than 80 000 square miles that covers parts of Texas and New Mexico. The Basin is home to what has become the most productive oil field in all of the USA since its discovery about a century ago, with production reaching four million barrels per day for the first time in 2019. Clariant's Midland site supplies customers in the oil industry with specialty chemicals and services. Delivering these products to customers is no small feat. Midland, which is nicknamed »The Tall City« for its impressive downtown skyline, has a population of about 160 000. However, some of the counties in the Permian Basin are among the least populated in the United States. »This is pretty much the textbook definition of 'the middle of nowhere,'« says Applin. The oil rigs and other facilities that his drivers head out to are scattered over a two-hundred-mile radius.

001 Eduardo Rodriguez
Treater Truck Driver, Business Unit
Oil and Mining Services

002 Off the main road
A typical route for Clariant's drivers
involves miles on unpaved tracks.



001



002

The middle of nowhere
Clariant's trucks deliver products to individual oil rigs out in the field.





»Back in the 1980s, it was dangerous on the road. The industry improved a lot since then.«

Liovijildo Arrieta
Regional Department of Transportation (DOT) Manager, Business Unit Oil and Mining Services

Not alone anymore

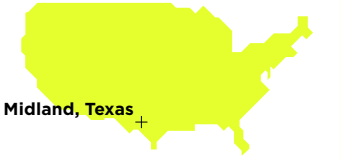
A typical route for Eduardo Rodriguez and his fellow drivers will involve 30 to 45 individual stops. Most of the routes start on Interstate 20, which passes Clariant's site only a few hundred yards away. Often drivers will eventually have to turn off the main road and follow unpaved tracks on a customer's property for a few miles to make several stops. »Sometimes, we don't leave a customer's lease for the entire day,« says Rodriguez. »And for the most part, you're all on your own out there – if it weren't for SmartDrive.«

Under the new system, every Clariant truck is fitted with two cameras. One camera faces inward and captures what the driver is doing. The other camera captures what is occurring in front of the vehicle. Sensors are used to capture video footage and data that occur in critical situations. That can be anything from a collision to erratic maneuvers. The sensors pick up on hard brakes, revving engines, lane changes, and U-turns. The system runs the entire time but only records inside the cabin when it is triggered by an event. It then captures a maximum of 20 seconds' worth of data – ten seconds leading up to the event and another ten seconds thereafter. Drivers can also trigger the recording manually, whenever they feel they need to document what's going on. The data and footage are then automatically uploaded and reviewed by dedicated SmartDrive analysts. Any relevant events are made available to Clariant within 24 hours.

That's where Liovijildo Arrieta comes in. He goes by »Leo,« and he helps ensure the drivers and trucks meet the safety standards in the Permian. Prior to joining Clariant, he was a Texas state trooper for 33 years, some of that time in Commercial Vehicle Enforcement. Driving his patrol cars on these roads, he's seen his share of tragedy. »Back in the old oil-boom days of the 1980s, it was dangerous just to be on the road,« he says. He remembers a particular stretch of road just off the Interstate 20 with several truck stops where countless oil trucks would pull in and out all day and night. »They would have an accident there literally every day,« he remembers. »But traffic has changed and the industry has improved a lot since then.« Leo is part of that change. He oversees and inspects Clariant's drivers and vehicles transporting hazardous materials throughout the Permian Basin. And he's responsible for most of the training and debriefing done with the help of data collected by the SmartDrive sensors and cameras. »I review every incident where there's something we need to address, and then I immediately call in the driver. Some are new drivers that carry over old habits. I remind them of our safety rules and that we're a safety-minded company. I rarely have these conversations twice,« says Arrieta.

A massive improvement

The new safety and transportation intelligence system is more than just a tool to document accidents or near misses. The data it collects has a profound impact on training and promoting safe driving. By tracking certain behaviors such as speeding, unfastened seatbelts, short following distances, or the use of mobile devices while driving, the system helps focus training on things that urgently need fixing. Just as importantly, it then shows whether the training has actually worked. The results speak for themselves: In the first year since introducing the technology in all its trucks, Clariant Oil Services was able to improve its aggregated Safety Score by 97 %. »The biggest impact we've had was with seatbelts,« says Rodriguez. »Especially out on unpaved roads and with



»And it’s not about showing where our guys did something wrong.«

Cody Applin
Regional Operations Manager Oil Services,
Business Unit Oil and Mining Services



so many stops, drivers can get complacent. We've put a stop to that and we are now close to 100 % seatbelt use.« Other areas have seen similarly encouraging results. A recent safety report prompted the business to set even higher goals for the coming year.

To Cody Applin, one of the keys to success is the combination of video and immediate training. »Using video to back up any discussion: that's what brings down the numbers,« says Applin. »And it's not just about showing where our guys did something wrong.« He remembers a particularly harrowing incident where one of his trucks was hit from behind while making a turn. As the footage showed, the driver wasn't at fault. »Our guy was wearing his seatbelt. He was in his lane with his turn signal on, checking his mirrors, when out of nowhere this speeding truck hits him,« Applin recalls. Luckily, nobody was hurt. Applin and Arrieta made a point of showing the video of the impact and the flying debris during their next workshop with drivers. It left a lasting impression: »Seeing that and knowing it's not just something on the five o'clock news, but really one of us, well, it hits home!«

A true asset for drivers

Securing video evidence is also a valuable asset to exonerate drivers. »Having that many trucks out on the road makes you a target,« says Applin. »Our drivers get accused of all sorts of things, but when we then look at the footage, nine times out of ten, it's not them that were at fault.« Applin recounts a recent incident where another truck cut in close in front of one of his drivers and then slammed the brakes. »Our guy inevitably rear-ended that truck. And normally we would have been at fault for following too close. Fortunately, the footage clearly showed that wasn't what happened.«

Eduardo Rodriguez has been the victim of similar calls himself. One time a company blamed him for hitting and damaging one of their gates out in the field. »Luckily, we were able to pull the recording,« he remembers. The footage of his front-facing camera backed him up: »The video showed that the gate was already all messed up before I even got there.«

Knowing that you're not out there alone and that your company has your back is what makes a big difference in Rodriguez's mind. »Trucks are generally seen as a nuisance, you know. Everybody needs us, but nobody wants us on the road. So you have to be at your best, and you need to stay very aware of your surroundings at all times,« he says. »And even then you get accused.«

Just like with other new technologies, from GPS tracking to modern emergency brake systems, the hope is that, with these safety intelligence systems becoming the norm, trucking becomes a lot safer. »We want to make sure everybody gets home safe after their day's work,« says Applin. »That includes our guys and everybody else out there on the road.« Unlike other innovations in road safety, safety intelligence also has the power to change attitudes, as the safety scores and the experience of Leo Arrieta, Cody Applin, and Eduardo Rodriguez show.

Whenever Rodriguez introduces SmartDrive to a newly hired driver, he notices an initial feeling of discomfort about being watched. That goes away quickly when drivers realize how the system can work in their favor and get help to them faster in an emergency. »We are not alone like we used to be,« says Rodriguez. »It really makes a difference to know there's somebody out there who has your back.«

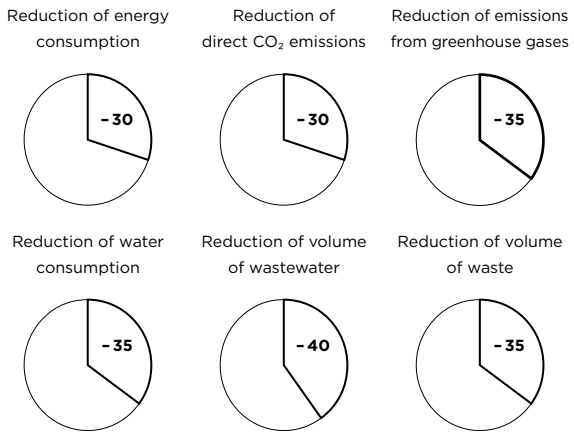
Planet

Clariant's brand value Planet encompasses value creation that evolves from using natural capital responsibly. This includes progress toward Clariant's environmental targets and on the material topics of Environmental Protection and Resources, Climate Change, and Circular Economy.

1. Natural capital

Clariant is steadfast in its commitment to continuously improve operational efficiency by developing solutions to environmental challenges. Since Clariant's production depends on ongoing access to many raw materials, stewardship of these natural resources is vital. To reliably and efficiently monitor environmental impacts from its production sites, Clariant regularly validates and reports the environmental data from its largest sites, which cover approximately 95 % of production volume. Clariant tracks the smaller sites as well by collecting their environmental data every three years. In 2019, 80 of the 118 production sites, as well as 5 administrative sites, were included in the reporting.

001 **ENVIRONMENTAL TARGETS 2025** in % (per t produced goods)



In 2019, Clariant managed to reduce almost all resource intensity figures and is still well on track to achieve its 2025 environmental targets. → **FIGURE 001** → **FIGURE 002** Due to the planned divestments of its Masterbatches and Pigments businesses and related effects on the production and the product portfolio, Clariant will revise its environmental targets.

CUSTOMER TO CASH

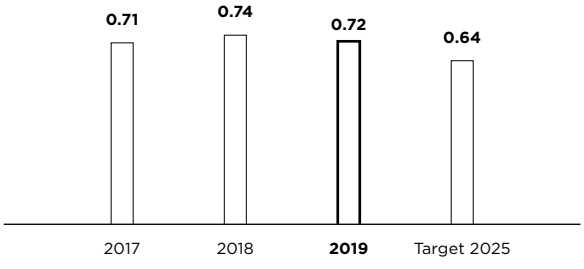
1.1. Progress toward environmental targets 2025

Clariant has set goals to achieve significant environmental impact reductions in six crucial areas by 2025, as compared to 2013. In relation to produced goods (per ton), Clariant aims to reduce energy consumption and direct CO_2 emissions by 30 %; greenhouse gas emissions, water consumption, and waste volume by 35 %; and wastewater volume by 40 %.

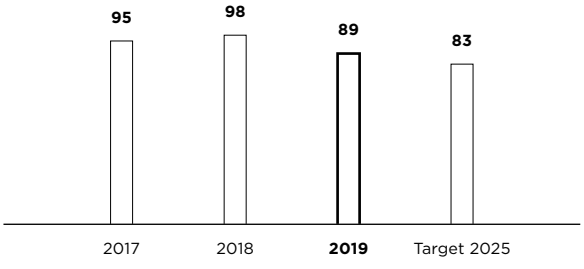
In 2019, energy consumption per ton of produced goods decreased by 2.5 %, from 739 kWh to 720 kWh. Direct CO_2 emissions (Scope 1) and greenhouse gas emissions (Scope 1 & 2) were reduced from 98 to 89 kg (– 9.2 %), and from 215 to 198 kg (– 7.9 %) per ton of production, respectively. The reduction in emissions indicates Clariant's shift to cleaner energy sources, such as natural gas and purchase of green electricity.

Water consumption per ton of produced goods decreased by 7.9 %, from 11.3 m^3 to 10.4 m^3. This reduction was mainly due to water efficiency improvement at many sites and changes in site ownership. Wastewater generation per ton of production diminished by 3.4 %, from 2.9 m^3 to 2.8 m^3.

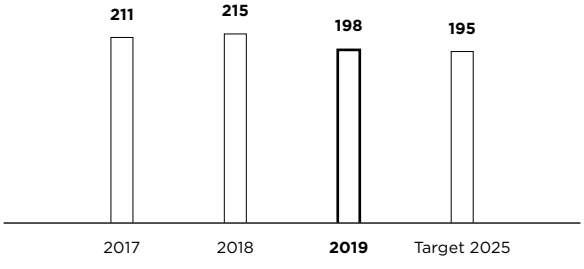
002 **PROGRESS TOWARDS 2025 TARGETS**



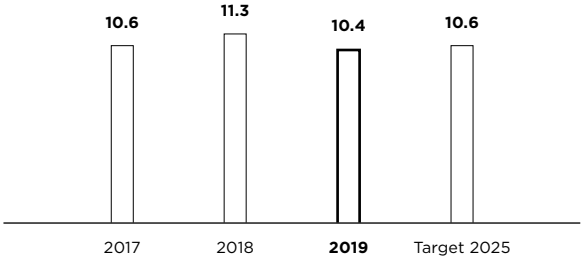
Energy consumption
in MWh per t produced goods, corresponding to – 22 % since 2013



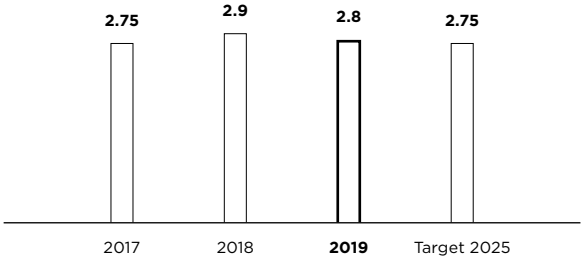
Direct CO_2 emissions
in kg per t produced goods, corresponding to – 25 % since 2013



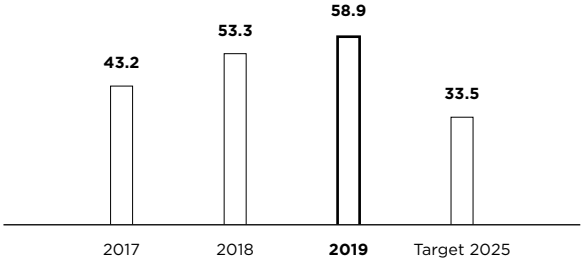
Greenhouse gas emissions
in kg per t produced goods, corresponding to – 34 % since 2013



Water consumption
in m³ per t produced goods, corresponding to – 36 % since 2013



Wastewater generation
in m³ per t produced goods, corresponding to – 39 % since 2013



Waste generation
in kg per t produced goods, corresponding to + 14 % since 2013

Waste generation increased by 10.5 % in 2019, rising from 53.3 kg to 58.9 kg per ton of production. This significant increase was mainly due to increased generation of non-hazardous gypsum waste generated as sludge during wastewater treatment in a few bentonite processing sites.

1.2. Environmental protection and resources

For Clariant, environmental protection and resources encompasses both the consumption of resources, such as energy and water, and the prevention of pollution and ecosystem effects. To minimize the company's impacts on the environment and safeguard natural resources, top management attention and a corporate culture that prioritizes environmental stewardship throughout the company are essential.

In 2019, Clariant recognized enhanced interest and focus by investors, customers, and other stakeholders regarding sustainability topics such as plastic recycling and water efficiency improvement, confirming Clariant's commitment to implement various measures throughout the company and engage in sustainable product development.

ENVIRONMENTAL PROTECTION AND RESOURCES [1]

	Continuing	Discontinued	**Total 2019** [2]	2018	Change in %
Total energy consumption (in m kWh)	2400	652	**3058**	3209	–4.7
Energy consumption (in kWh/t production)	601	2547	**720**	739	–2.6
Total water consumption (in m m^3)	25.7	17.3	**44.3**	49.0	–9.6
Total wastewater generation (in m m^3)	6.7	3.7	**11.9**	12.6	–5.6
Total quantity of waste (in thousand t)	215.7	32.6	**250.2**	232	7.8

[1] Every three years, Clariant validates environmental data from all production sites. The last full reporting campaign was in 2017. In the interim years, including 2018 and 2019, the reduced reporting scope comprises the larger sites responsible for 95 % of production.

[2] The difference in the sum of continued and discontinued operations compared to the group total is due to the resource consumption of non-production sites.

1.2.1. Energy

Clariant aims to continually reduce energy consumption and to minimize energy-related greenhouse gas emissions. In 2019, energy consumption per ton of produced goods decreased by 2.5 %. Clariant will continue to work toward its energy consumption reductions targeted for 2025 by further investing in and developing programs such as eWATCH™, Clariant Operational Excellence, and the Clariant Production System Yield, Energy, Environment (YEE) initiative.

Optimizing energy consumption with eWATCH™

eWATCH™ oversees all forms and usages of energy at Clariant – electricity, heating and cooling, steam, natural gas, nitrogen, and the production of deionized water – by taking into account the design and setup of equipment and processes across Clariant's facilities. It also records and analyzes Clariant's energy consumption, including information on energy flows, prices, and usage optimization. It maintains information on total energy usage patterns and requirements and will increasingly consider maintenance activities, changeovers, cleaning, and production planning and scheduling in the future. eWATCH™ focuses on three pillars: operations and technology; awareness, mindset, and behavior; and energy management.

Through eWATCH™, Clariant crafted a comprehensive energy efficiency program that analyzes energy consumption across operations and identifies potential cost-saving opportunities. Since 2013, a total of CHF 37.3 million was saved by implementing energy efficiency measures and energy-purchasing optimizations. In 2019 alone, Clariant managed to save CHF 4.4 million.

In 2019, Clariant advanced the »eWATCH™ goes digital« initiative. In its production sites, energy management systems and smart meters were implemented to enhance data availability. In order to increase visualization capabilities, Clariant used tools such as Microsoft Power BI, which helped to quickly spot improvement potential or identify outliers. Further, Clariant introduced a monthly energy performance indicator reporting on site and country level.

Clariant globally passed the recertification of the energy management system according to ISO 50001 and prepared for the updated standard in various sites. 39 % of Clariant's production volume was produced at sites certified with ISO 50001. Clariant also continued performing energy benchmarks of utility generation systems internally as well as against state-of-the-art installations.

The Production System YEE initiative analyzes Clariant's production processes and units to discover even more opportunities to increase yields, improve energy efficiency, and reduce waste streams. Since its inception in 2012, Clariant achieved savings of CHF 80 million due to YEE. In 2019 alone, savings amounted to almost CHF 6 million.

1.2.2. Water consumption and wastewater generation

Water is one of the most important auxiliary materials for the chemical industry. Clariant considers the entire volume of water withdrawn and used as its total water consumption. Cooling water returned to the source after being used in cooling cycles is not excluded from total consumption. Clariant uses roughly 70 % of purchased water for cooling production plants, 20 % for production processes, and 10 % as a product component or for sanitary purposes. In 2019, water consumption per ton of produced goods decreased by almost 8 %. This reduction was due to water efficiency improvement measures, changes in site ownership, less water-intensive production processes, and a decrease of production volume in sites with high water consumption.

Wastewater is well managed at all Clariant production sites, and local regulatory requirements regarding discharge limits are strictly followed. The company assesses wastewater quality by measuring heavy metals concentration, nitrogen and phosphorus compounds, as well as biological and chemical oxygen demands. Wastewater is often pretreated at Clariant's sites before being transferred to dedicated industrial or municipal wastewater treatment plants for further treatment. The pretreatment mostly consists of a multistage chemical and physical treatment to ensure effluents do not impair the receiving water bodies. With this multistep treatment approach and constant monitoring, Clariant guarantees that discharged wastewater does not negatively impact ecosystems. In 2019, wastewater generation per ton of produced goods decreased by 3.5 %.

Two years ago, Clariant undertook a Group-wide water-risk assessment employing the World Resources Institute's (WRI) global risk assessment tool. The assessment showed that only a small percentage of Clariant's sites are located in water-risk areas. To further deepen the understanding of risks, a pilot water-risk assessment project was completed in Santa Clara, Mexico, in 2018. Several water efficiency projects were implemented on the site, which included harvesting rainwater for cooling purposes, reducing water consumption in various production steps, and implementing a water pressure system in filter press areas. In addition, upgrading the existing wastewater

Clear goals

In 2019, Clariant opened a new wastewater treatment plant at its production site in Bonthapally, India. The facility at the zero liquid discharge site has the capacity to treat 300 000 liters of wastewater per day. It employs a state-of-the-art combination of highly efficient processes that remove any contamination and purify the water in various stages to be potable as per World Health Organization (WHO) guidelines. The process involves biological treatment, ultrafiltration, reverse osmosis, multiple evaporation techniques as well as agitated thin-film drying. The investment in the new wastewater treatment plant is part of the company's growth strategy for its Business Unit Industrial & Consumer Specialties (ICS), and it ensures the company's continued focus on sustainability and environmental protection. The ICS site in Bonthapally has been awarded a rating of three stars out of three for its Environment, Health, and Safety (EHS) practices in 2018 by the Confederation of Indian Industry, Southern Region.

SPOTS

The Sustainable Palm Oil and Traceability in Sabah (SPOTS) aims to support small Malaysian palm oil producers with regard to sustainability, certification, and supply chain traceability, and to increase productivity by 20 % until 2020. → clariant.com/en/Sustainability/Value-Chain-Collaboration/The-SPOTS-Initiative

treatment plant to enable reuse of treated water is being investigated. In 2019, analogous water-risk assessment studies were performed at all Clariant sites located in water-risk areas. These in-depth analyses will be used to develop water management goals that ensure the respective sites can responsibly manage their risks. Clariant's comprehensive and continued efforts in water-risk management at different levels of the organization resulted in outside recognition. In the Dow Jones Sustainability Index (DJSI), the company was one of the best-in-class performers in its sector regarding water-related risks for the third consecutive year.

1.2.3. Waste

Clariant follows a strict waste-management protocol. The company prioritizes waste prevention as this approach minimizes resource consumption in addition to costs. During product development and manufacturing, Clariant aims to generate as little waste as possible, and any unavoidable waste is recycled or disposed of properly in adherence to local regulations. Accumulated waste is documented in detail in order to enable proper classification and handling. Per ton of production, generation of waste increased by 10.5 % in 2019. This was mainly due to an increased generation of non-hazardous gypsum waste generated as sludge during wastewater treatment in a few bentonite processing sites, and the removal of out-of-date inventory such as old equipment.

1.2.4. Air pollution

Clariant also judiciously monitors and contains air emissions from operations. Clariant adheres to local regulations regarding air emission limits in all the countries in which it operates. Air pollutants tracked at the Group level include volatile organic compounds (VOCs), sulfur oxides (SOx's), and nitrogen oxides (NOx's).

1.2.5. Ecosystem protection

Clariant strives to ensure its activities do not impede or degrade ecosystem services, such as provision of fresh water, air purification, energy production, and protection against natural disasters, as they are vital for its businesses and society in general. Clariant does not operate production sites in biological reserves or areas with high biodiversity value.

To protect rainforests and peatland and combat ecological degradation caused by the clearing of land for palm oil plantations, Clariant also considers impacts of specific raw materials used and pursues certification of its palm oil derivatives supply. As a member of the Roundtable on Sustainable Palm Oil (RSPO), Clariant achieved mass-balance certification for all of its sites in 2016 and has more than 200 products, which are available with the Mass Balance certificate. Clariant will continue to extend the certified product portfolio in order to help its customers meet demand for certified palm ingredients.

When mining bentonite, Clariant follows several steps to exceed societal and community expectations regarding the conservation of the surrounding ecosystem. Before drilling begins, Clariant's geologists craft a plan to minimize associated environmental impacts. This includes removing the topsoil and overburden as carefully as possible in order to preserve it for future land restoration. During mining, Clariant ensures that resident animals may easily move to adjacent areas. Before being transported, the bentonite is sun-dried, reducing its weight and thus emissions produced in shipping. Quarry closure is undertaken with local experts in order to restore the land for profitable use in forestry or agriculture. These efforts are crucial to maintain healthy relationships with local communities and protect local ecosystems.

GRI Online Report

Management Approach Environmental Protection and Resources → reports.clariant.com/2019/gri

1.3. Climate change

Climate change is one of society's most significant challenges and is driven by the emissions of greenhouse gases. As impacts magnify, such as shifting weather patterns and increased risk of flooding, attention rises and calls for actions accordingly.

For an innovative chemical company like Clariant, climate change triggers both risks and opportunities. For example, while more governments are introducing carbon pricing schemes, business opportunities to reduce

GREENHOUSE GAS EMISSIONS [1]

	Continuing	Discontinued	**Total 2019 [2]**	2018	Change in %
Total greenhouse gas emissions (Scope 1 & 2 CO_2 equivalents) (in m t)	0.68	0.16	**0.84**	0.93	–9.7
Total indirect greenhouse gas emissions (Scope 3 CO_2 equivalents) (in m t)			**4.99**	5.69	–12.3
Greenhouse gas emissions (Scope 1 & 2 CO_2 equivalents) (in kg/t production)	171	609	**198**	215	–7.9

[1] Every three years, Clariant validates environmental data from all production sites. The last full reporting campaign was in 2017. In the interim years, including 2018 and 2019, the reduced reporting scope comprises the larger sites responsible for 95% of production.

[2] The difference in the sum of continued and discontinued operations compared to the group total is due to the resource consumption of non-production sites.

energy costs and the development of low-carbon products, such as catalysts that support the reduction of greenhouse gas emissions, are to be exploited.

In order to contribute to a sustainable economy, Clariant adopted environmental targets to be achieved by 2025. Compared to the base year 2013, Clariant committed to reduce Scope 1 and 2 greenhouse gas emissions by 35% and to reduce direct carbon dioxide emissions by 30%, both per metric ton of production. Clariant is well on track to reach these targets.
→ **PAGE 178**

In 2019, direct CO_2 emissions (Scope 1) per ton of production decreased by 9.2% and greenhouse gas emissions (Scope 1 & 2) were reduced by 7.9%. This was mainly driven by changes in site ownership, an overall reduced energy consumption, as well as a shift away from heating oil to natural gas and purchase of green electricity at certain sites.

Since 2018, Clariant improved the comprehensiveness, transparency, and robustness of its greenhouse gas emissions data by reporting on emissions occurring along Clariant's value chain (Scope 3 emissions). The reporting includes relevant activities such as the purchase of raw materials, energy-related emissions, transportation and distribution of supplied materials and sold products, and the end-of-life treatment of sold products.

The decrease of Scope 3 emissions between 2018 and 2019 by 12.3% was primarily driven by a decrease of CO_2 in purchased goods and services, and end-of-life treatment of sold products. A detailed breakdown of Clariant's greenhouse gas emissions is available in the GRI Report.

In 2019, Clariant continued rolling out its energy efficiency program eWATCH™ to China. In addition, it advanced the digitalization of the program by piloting different business intelligence systems for energy management and by introducing smart metering to measure energy consumption. Clariant also introduced a monthly reporting cycle that includes Energy

Fear no colors

Light, tough, water-resistant and fast-drying – when it comes to sportswear and outdoor gear, synthetic fabrics are hard to beat. If taken good care of, these materials can last a lifetime, which makes their use very sustainable. Clariant and the Swedish start-up We aRe SpinDye® have teamed up to make them even more so. Together they have developed a method of spin-dyeing polyester. It involves coloring the fibers themselves before spinning them into yarn and weaving that into a fabric. That may sound obvious and has in fact been standard practice in many industries for decades. But it is only now catching on in fashion. Here, fabrics are usually dyed after they are woven, all too often using methods that use large amounts of water, harmful chemicals, and cheap labor in countries where wastewater management is lacking. Naturally, Clariant's Business Unit Masterbatches knows a thing or two about coloring synthetic polymers. It supplies a host of industries with color-giving pellets called masterbatches, which are to be melted into clear plastics. Together, Clariant and We aRe SpinDye® apply that method to spin-dyeing polyester fibers in a large choice of colors. And they have already made a splash by teaming up with high-profile brands such as Quiksilver and Fjällräven. The hope is to make spin-dyeing the new industry standard for polyester fibers. According to We aRe SpinDye®, compared to piece-dye-finished fabrics, the process uses 75% less water, 90% less chemicals, up to 40% less energy, and reduces the CO_2 footprint by about 30%.

Performance Indicators on the site and country level. This allows Clariant to process and use energy data to improve energy savings and emissions reductions while increasing transparency. Furthermore, several sites were brought into compliance with the new ISO 50001 (2018) standard for energy management. At the end of 2019, 39 % of Clariant's sites were covered by ISO 50001.

Clariant made further progress in substituting fossil fuels with renewable energy sources. In 2019, the Knapsack, Germany, site joined the sites in Sweden and Belgium in making the switch to 100 % renewable electricity. In addition, the sites in Tarragona, Spain, Bonthapally, India, Santa Clara and Coatzacoalcos, Mexico, increased their share of renewable electricity consumption.

In 2019, Clariant also worked to reduce Scope 3 emissions with several approaches, which included establishing a partnership with Neste to replace fossil-based feedstock chemicals with low-carbon solutions and moving strategic production sites closer to customers, thereby reducing transportation distances.

GRI Online Report
Management Approach Climate Change
→ reports.clariant.com/2019/gri

1.4. Circular economy

Society, governments, and businesses are coming to the consensus that the circular economy is a viable alternative to the current linear way of conducting business. In a circular economy, materials are durable and reparable, kept in use for as long as possible, and are fully recovered or recycled at a product's end-of-life. Ideally, material components are also renewable and sourced sustainably.

1.4.1. Target-oriented initiatives

Besides a continuous stream of policies and studies promoting the circular economy, Clariant observed an increasing number of brand owners promoting plastics recycling and registered more customer requests for collaboration in 2019. As a supplier to various industries, Clariant has the desire and vast potential to contribute toward achieving a circular economy. As a specialty chemical company strongly embedded in the plastics value chain, Clariant's understanding of product-related recycling and deep chemical knowledge are clear advantages for developing circular solutions.

In 2019, Clariant bundled its efforts to promote a circular and sustainable plastics economy under the motto »Symphony of Collaboration,« underlining the importance of the complete value chain in addressing the plastic waste challenge. As part of this effort, Clariant launched EcoCircle, a company-wide initiative to support the transition from a one-way plastics value chain to a circular plastics economy. With

Launch of four sustainability designators

In 2019, Clariant introduced four so-called sustainability designators to help customers looking for particular sustainability attributes. The four suffixes are applied to the end of product names to identify products with key advantages in certain areas:

Aqua – water saving
Found on products and solutions that support customers and the value chain in saving at least 20 % of water in the direct or end use of their products.

Terra – renewable feedstock
Found on products and solutions containing a significant share of renewable resources with mass-balance certification or real renewable content reaching a Renewable Carbon Index of at least 50 %.

Circle – circular plastics economy
Found on products with the primary purpose of supporting the reduction, reuse, or recycling of plastic products demonstrating a beneficial and validated performance.

Vita – natural ingredients
Found on products and solutions that contain enough natural und renewable ingredients to achieve at least 98 % on the Renewable Carbon Index.

»We made ›Symphony of Collaboration‹ our theme for 2019 because it's vitally important for the whole value chain to address the plastic waste challenge, and collaboration is the best way forward.«

Hans Bohnen
Chief Operating Officer (COO), Member of the Executive Committee

EcoCircle, Clariant extends its focus from the product to the entire value chain, identifying sustainable and viable solutions for a circular plastics economy. Clariant is also introducing worldwide EcoCircle Centers of Excellence dedicated to collaborative research and joint development of products and solutions for a circular plastics economy. Specialized teams and facilities will allow Clariant to channel expertise and develop specialty products for specific circular applications. → PAGE 186

In 2019, Clariant introduced four sustainability designators that enable customers to identify products with key advantages. The »Circle« designator highlights products that contribute to plastic recycling and the circular economy. → PAGE 184

1.4.2. Tangible results

Clariant was awarded the Material Health Certificate GOLD level certification from the Cradle-to-Cradle™ Products Innovation Institute for Licocare® RBW Vita, a renewable and competitive processing aid for formulators of bioplastic compounds. The Material Health Certificate uses the rigorous, globally recognized material health assessment methodology of the Cradle-to-Cradle Certified™ Product Standard to verify a product's support for safe and circular products. All ingredients present at concentrations above 100 ppm in a product are assessed. The certificate is highly valued among brand owners and facilitates customers' ambitions to certify their final products. In order to receive the Cradle-to-Cradle™ certification, Clariant collaborated closely with the Swiss-based certifier, the Environmental Protection Encouragement Agency (EPEA).

Cradle-to-Cradle™

The Cradle-to-Cradle™ certification assesses a product along five dimensions: material health, material reutilization, renewable energy and carbon management, water stewardship, and social fairness.

1.4.3. Advancing together

For the circular economy to take off, innovation and collaboration are paramount. To strengthen its impact and deliver its sustainability ambition with other like-minded companies, Clariant joined the World Business Council on Sustainable Development (WBCSD) in 2019. Clariant is contributing to the WBCSD Circular Economy Initiative Factor 10, a project that brings companies together to rethink the current way of finding, using, and disposing of the materials that make up global trade, and aims to create scalable solutions for businesses. Clariant also contributed to the WBCSD's CEO guide to the Circular Bioeconomy, which calls for a shift toward a sustainable, low-carbon, circular bioeconomy and provides a clear view on the concomitant economic opportunities.

Together with 29 multinational companies that use, sell, process, and recycle plastics, Clariant founded the Alliance to End Plastic Waste (AEPW), which was launched in early 2019. The AEPW's mission is to end plastic waste in the environment by cleaning up rivers that carry vast amounts of plastic waste to the ocean, building infrastructure to collect, manage, and recycle waste, advancing and scaling new technologies, and educating and engaging governments, businesses, and communities to mobilize action.

GRI Online Report
Management Approach Circular Economy
→ reports.clariant.com/2019/gri



Drive Change in the Industry

Circular Economy

Closing the loop

With its new EcoCircle initiative, Clariant is tackling the problem of plastic waste along the entire value chain by building a unique cross-industry network.

Contribution to SDGs

This story is an example of Clariant's contribution to SDG 12 and SDG 17.

Read more on → PAGE 24



Plastic is everywhere. In the century since a Belgian chemist named Leo Baekeland came up with Bakelite™, the first fully synthetic polymer, these types of materials have become ubiquitous and changed almost every aspect of our everyday life. That's no surprise. Plastics are tough, lightweight, cheap, extremely versatile, and almost imperishable. Sadly, it is this last part in particular that is causing problems. Plastic waste takes decades, if not centuries, to decompose. And despite all of our recycling efforts, only about 16 % of all the plastic produced worldwide is recycled. The vast majority is either incinerated or ends up in landfill, unmanaged dumps, or even in the wild. Every year, about eight million tons of plastic leak into the ocean. At this rate, some estimates say, plastic will outweigh fish in the sea by 2050.

In fact, the phrase »plastics are everywhere« has taken on a somewhat ominous meaning. Researchers have recently found microplastic in the food we eat, the water we drink, and the air we breathe. That level of pollution has lent a different image to the wonder material of the past. The good news is that it doesn't have to stay that way. Most plastic could be recycled. The bad news is that doing so requires a massive shift in the way we produce, use, collect, and reuse it – and Clariant wants to contribute its part to this shift.

»Humanity desperately needs to solve its waste problem,« says Richard Haldimann, Clariant's Head of New Business Development. For him and many others, establishing a truly circular plastics economy is the way to go. As a leading supplier to the industry with decades of experience in improving plastics, Clariant is certainly wellplaced to do its part. Clariant's Business Units Pigments, Additives, and Masterbatches supply eponymous products that are essential to the industry. A masterbatch, for example, is a type of concentrate, a polymer with a very specific and highly concentrated mix of pigments and additives, which can be melted into any raw polymer to achieve a desired effect. »Some of our products already help make plastics especially fit for recycling or can enhance the performance of post-consumer recyclates,« says Haldimann. But when it comes to plastic packaging, for example, Clariant is just a single link in a complex value chain that involves everybody from polymer producers and converters, who manufacture the actual packaging, to brand owners and retailers, and ultimately consumers, waste collectors,



»Humanity desperately needs to solve its waste problem.«

Richard Haldimann
Head of New Business Development

and recyclers. »They all have very different requirements,« says Haldimann. »However, one cause they all increasingly rally around is the push for a truly circular economy.« That's why Clariant initiated what it calls its »EcoCircle,« an initiative to jointly develop new materials and technologies with the whole value chain in mind. »With EcoCircle, we bring together very different stakeholders across several industries,« says Bettina Siggelkow, who manages these collaborations at Clariant. Siggelkow is herself not only a chemist but also an expert in collaborative techniques and joint R&D. She was involved in introducing modern approaches such as design thinking to Clariant's own innovation work. »I've had many jobs within Clariant. One thing they all involved was orchestrating people from very different fields,« she says.



Future address
Clariant's site in Pogliano, Italy, is home to the company's first so-called EcoCircle Center of Excellence.

Identifying problematic plastics

At the triennial K 2019, the world's largest plastics expo in Duesseldorf, Germany, Clariant and a host of its EcoCircle partners recently demonstrated what these collaborations bring to the table. One of the projects presented at the expo was Clariant's cooperation with TOMRA Sorting Recycling, a Norwegian company that is an industry leader for the type of instruments that enable automated sorting. The collaboration tackles a common problem with dark or black plastic packaging. These have become immensely popular in recent years for anything from shampoo bottles to the housing of consumer electronics, but that has proven problematic for recycling centers. Conventional black pigments such as carbon black do not reflect near-infrared (NIR) light. That renders them invisible to the kinds of NIR scanners that recyclers commonly rely on to automatically identify and pick out plastics in the waste stream. Under NIR, any plastic bottle cap, shampoo bottle, or food container tinted with carbon black is simply indistinguishable from the conveyor belt it moves on. As a result, these plastics are lost to recyclers and either end up in landfill or are incinerated. To end this, Clariant developed – and TOMRA successfully tested – a new additive masterbatch called CESA® IR that enables the detectability of black plastics for recycling and is also itself recyclable.

The role of additives in recycling can be tricky. While some, such as Clariant's new CESA® IR, help in the process, others can have adverse effects. That was a problem for another of Clariant's EcoCircle partners. APK, a young company from Merseburg near Leipzig, has developed a unique solvent-based recycling technology they've dubbed Newcycling™. It allows APK to dissolve certain plastics from waste and then extract the desired plastic from the solution in its pure form. That puts the technology somewhere between mechanical recycling, which relies on melting shredded plastic but almost never yields perfectly pure material, and chemical recycling, which delivers quasi-virgin plastic via depolymerization but requires large amounts of energy. »In working with APK, we've already learned a lot about what types of impurities, additives, and pigments in the waste stream can gum up their process,« says Siggelkow. »And together, we've come up with new ways to purify and reuse their solvent after each cycle, which makes the process very efficient.«

Biotransformation

An end to fugitive plastic

While EcoCircle, as the name suggests, is devoted to recovering and reusing as much plastic as possible, the risk of plastic leakage into nature always remains. And not just in regions where waste collection generally leaves a lot to be desired. To tackle this problem, Clariant joined forces with Polymateria in 2019 to bring its unique innovation to market. The British start-up has developed a »biotransformation« technology that alters the properties of commonly used plastics to make them entirely biodegradable after a predetermined time. Applied as an additive, Polymateria's solution remains dormant for the specified shelf life of the packaging, which can range from six months to three years. »That way, our technology gives recycling every chance to happen,« says Niall Dunne, Polymateria's CEO. »But if any of the material does find its way out into the wild, our technology is the only one that is able to achieve full biodegradation – in water, CO_2, and biomass – for the most highly littered forms of plastic.« Polymateria's solution avoids creating microplastic by attacking the hard crystalline structure of the polymer, making the molecules bioavailable again. Additional prebiotic activators even draw in and stimulate microorganisms to feast on the carbon molecules.



»Consumers, retailers, and brand owners are all pushing to close the plastics loop.«

Bettina Siggelkow
EcoCircle Program Manager,
New Business Development

Effective additives after numerous cycles

The best-case scenario, however, is for additives to actually be part of the recycling process and maintain their beneficial effect throughout several cycles of reuse. That is something Clariant has specifically worked on for its range of Exolit® OP flame retardants. These are phosphorus-based, non-halogenated flame retardants that are commonly used for plastics in electronics or cars. Together with the Fraunhofer Institute, an independent German research center, Clariant was able to show that the Exolit® range also maintains its flame-retardant property even after being recycled multiple times. That is a huge boon to sustainability because it allows the likes of circuit board producers or automotive suppliers to recycle their own waste and regrind material for the same application.

The business case for recyclable materials and what Clariant calls »design for recycling« is straightforward. »Consumers, retailers, and brand owners are all pushing to close the plastics loop,« says Siggelkow. Various brands have committed themselves to using 100 % recyclable materials by 2025, increasing the amount of recycled polymers in their products to up to 25 %, partly even up to 50 %. And retailers, who up until recently mostly cared about things like shelf life, stackability, and



001



002



003

001 Producing

Developers in Pogliano already use industry-standard equipment to produce different plastic materials.

002 Using

Clariant has decades of experience in tailoring material properties to fit any application imaginable.

003 Recovering

Shredding plastic waste is one step in the small-scale recycling process.

sturdiness, now look to do their part by reducing waste and recycling more packaging themselves. Big industry names are even themselves getting involved along the entire value chain. »We see brand owners and retailers opening up their own labs and buying up recyclers or start-ups,« says Haldimann.

For Clariant, moving up the value chain to talk directly with brand owners is nothing new. Its ColorWorks™ team has established ties within the industry to work and advise on coming trends. With the industry now looking for trends and innovation in terms of recycling and circular solutions, Clariant sees itself involved with even more stakeholders.

Joint efforts with EcoCircle partners have already yielded new products, some of which are marketed with the suffix »Circle« to promote their benefit to the circular plastics economy. But EcoCircle is about much more than product development. Clariant is building a platform and a network to work on R&D and new industry standards together with stakeholders. Only very few of those will ever be direct customers to Clariant. »It's much more about supporting the transition from single-use plastic to a truly circular plastics economy,« says Haldimann. »The industry and its stakeholders can undoubtedly benefit from our products along with our know-how, whether it's for virgin polymers or for recyclates. That's one reason why we're confident about the size of those respective markets.«

Global plastic production has increased more than twentyfold in the last half century. It is set to at least triple again by the middle of this century. With all the negativity surrounding plastic, that might seem daunting. But it's easy to forget the positive impact plastic has. Better plastic packaging has dramatically decreased food waste, lightweight plastic packaging saves fuel in transportation, and plastic use for medical equipment has helped immeasurably to make medical treatment safer and affordable. »Plastic is here to stay. What will change is the way it's produced and reused,« says Haldimann.

Tackling real-life problems

EcoCircle, which so far has been an umbrella term for a range of ongoing R&D projects, meetings, and round-tables, will soon have its own dedicated research facilities. At its Masterbatch site in Pogliano, Italy, Clariant is building the first of what it calls »EcoCircle Centers of Excellence.« Here, Clariant is establishing a kind of small-scale recycling center that, together with already existing labs, will eventually replicate the entire process from waste shredding to washing, recycling, and finally converting recyclates back into actual products. »In Pogliano, we've been working for some time now with industry-standard extruders and production equipment that our direct customers use,« says Siggelkow. »Now we're expanding to what comes before and after.« The aim is to come up with solutions that tackle real-life problems for anyone recovering and reusing plastic materials, both by mechanical recycling as well as chemical recycling. To address other areas of recycling, Clariant is currently investigating the setup of additional Centers of Excellence.

Clariant's Business Unit Additives, in particular, is set to improve recycling not only in the packaging industry. One recent innovation involves carpets. In Europe alone, about three-quarters of all carpet flooring eventually is sent to landfill or incinerated – even though most carpets today are made with recyclable woven or tufted materials. The problem is the latex backing, which usually cannot be removed from the fibers and makes for a nonrecyclable mix of materials. With Licocene®, Clariant's Business Unit Additives offers recyclable adhesives that also save water and energy in their application. More importantly, they can be separated from the fibers easily and cleanly by using a process called CreaSolv™, developed by the Fraunhofer Institute. It recovers the adhesive with at least 90 % of its virgin quality for reuse and has the potential to close the plastic loops for yet another industry.

SWITZERLAND & ITALY



Independent Assurance Report on Clariant's Non-Financial Reporting 2019

To the Board of Directors of Clariant Ltd, Muttenz

We have been engaged to perform assurance procedures to provide limited assurance on the non-financial performance reporting of Clariant Ltd and its consolidated subsidiaries (›Clariant‹) for the year ended 31 December 2019.

Scope and subject matter

Our limited assurance engagement focused on the 2019 non-financial performance indicators published in the Integrated Report 2019 of Clariant:

a) The »Intellectual Capital« indicators on page 140, the »Innovation and Technological Advances« indicators on page 140, the »Manufactured Capital« indicators on page 149, the »Product Stewardship/Sustainable Chemistry« indicators on page 150, the »Raw Material Procurement according to Region« indicators on page 152, the »Human Capital« indicators on page 155, the »Talent Attraction and Development« indicators on page 155, the »Occupational Health, Safety and Well-being« indicators on page 160, the »Relationship Capital« indicators on page 163, the »Customer Relationships« indicators on page 163, the »Ethics and Compliance« indicators on page 164, the »Sustainable Value Chain« indicators on page 167, the »Environmental Protection and Resources« indicators on page 180 and the »Greenhouse Gas Emission« indicators on page 183; and

b) The management and reporting processes to collect and aggregate the data as well as the control environment in relation to the data aggregation of these data.

Criteria

The reporting criteria used by Clariant are described in the internal reporting guidelines and define those procedures, by which the non-financial performance indicators are internally gathered, collated and aggregated. The internal guidelines are based on the GRI Sustainability Reporting Standards (GRI Standards) published by the Global Reporting Initiative (GRI).

Inherent limitations

The accuracy and completeness of non-financial performance indicators are subject to inherent limitations given their nature and methods for determining, calculating and estimating such data. Our assurance report should therefore be read in connection with Clariant's internal guidelines, definitions and procedures on non-financial performance reporting. Further, the greenhouse gas quantification is subject to inherent uncertainty because of incomplete scientific knowledge used to determine emissions factors and the values needed to combine emissions of different gases.

Clariant responsibility

The Board of Directors of Clariant Ltd is responsible for both the subject matter and the criteria as well as for selection, preparation and presentation of the information in accordance with the criteria. This responsibility includes the design, implementation and maintenance of related internal control relevant to this reporting process that is free from material misstatement, whether due to fraud or error.

Our responsibility

Our responsibility is to form an independent conclusion, based on our limited assurance procedures, on whether anything has come to our attention to indicate that the non-financial performance indicators are not stated, in all material respects, in accordance with the reporting criteria.

We planned and performed our procedures in accordance with the International Standard on Assurance Engagements (ISAE) 3000 (revised) ›Assurance engagements other than audits or reviews of historical financial information‹ and with ISAE 3410 ›Assurance Engagements on Greenhouse Gas Statements‹. These standards require that we plan and perform the assurance engagement to obtain limited assurance the identified non-financial indicators.

A limited assurance engagement is substantially less in scope than a reasonable assurance engagement in relation to both the risk assessment procedures, including an understanding of internal control, and the procedures performed in response to the assessed risks. Consequently, the nature, timing and extent of procedures for gathering sufficient appropriate evidence are deliberately limited relative to a reasonable assurance engagement and therefore less assurance is obtained with a limited assurance engagement than for a reasonable assurance engagement is obtained with a limited assurance engagement than for a reasonable assurance.

Our independence and quality controls

We have complied with the independence and other ethical requirements of the Code of Ethics for Professional Accountants issued by the International Ethics Standards Board for Accountants, which is founded on fundamental principles of integrity, objectivity, professional competence and due care, confidentiality and professional behaviour.

Our firm applies International Standard on Quality Control 1 and accordingly maintains a comprehensive system of quality control including documented policies and procedures regarding compliance with ethical requirements, professional standards and applicable legal and regulatory requirements.

Summary of the work performed

Our limited assurance procedures included, but were not limited to the following work:

— Reviewing the application of Clariant's internal guidelines
— Interviewing Clariant representatives at Group level responsible for the data collection and reporting
— Interviewing Clariant representatives in Germany, Spain and China responsible for the data collection and reporting
— Performing tests on a sample basis of evidence supporting the non-financial performance indicators as outlined in the scope and subject matter section concerning completeness, accuracy, adequacy and consistency
— Inspecting the relevant documentation on a sample basis
— Reviewing and assessing the management reporting processes for non-financial performance reporting and consolidation and their related controls

We have not carried out any work on data other than outlined in the scope and subject matter section as defined above. We believe that the evidence we have obtained is sufficient and appropriate to provide a basis for our assurance conclusions.

Limited assurance conclusion

Based on the procedures we performed, nothing has come to our attention that causes us to believe that

a) The 2019 non-financial performance indicators of Clariant as described in the scope and subject matter section are not prepared and disclosed in all material respects in accordance with Clariant's internal guidelines and procedures; and
b) The management and reporting processes to collect and aggregate the data as well as the control environment in relation to the data aggregation are not functioning as designed.

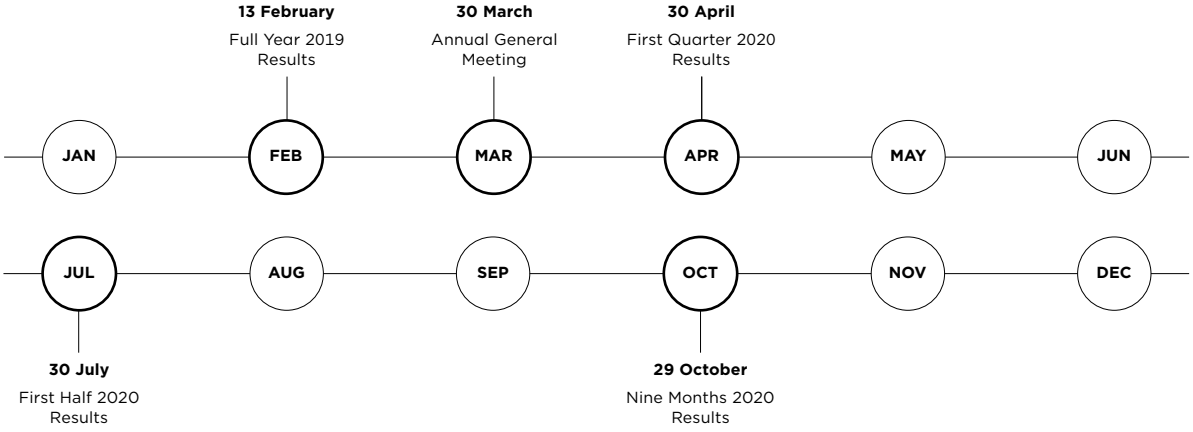
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Financial Calendar 2020



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Note about forward-looking statements
This report contains forward-looking statements based on current assumptions and projections made by management. Such statements are subject to known and unknown risks, uncertainties and other factors which may cause the actual results and performance of Clariant International Ltd to differ from those expressed in, implied or projected by the forward-looking information and statements. The information published in this report is provided by Clariant International Ltd and corresponds to the status as of the date of publication of this report.

Disclaimer
Clariant International Ltd published the Integrated Report in English and German. The English version is legally binding.

Five-Year Group Overview 2015 – 2019

	Continuing operations				
CHF m	**2019**	2018	2017	2016	2015
Sales	**4 399**	4 404	6 377	5 847	5 807
Change relative to preceding year					
in Swiss francs (%)	**0**	–	9	1	– 5
in local currencies (%)	**3**	–	9	2	3
Operating income before exceptionals	**444**	480	673	622	596
Operating income	**165**	348	496	512	496
EBITDA before exceptionals	**740**	739	974	887	853
EBITDA after exceptional items	**461**	607	813	785	767
Net income	**– 34**	213	302	263	227 [2]
Basic earnings per share (in CHF)	**– 0.17**	0.59	0.84	0.78	0.67
Distribution per share (in CHF)	**0.55**	0.55	0.50	0.45	0.40
EBITDA margin before exceptionals (%)	**16.8**	16.8	15.3	15.2	14.7
EBITDA margin after exceptional items (%)	**10.5**	13.8	n.a.	n.a.	n.a.
Return on invested capital (ROIC) (%)	**9.0** [1]	9.0 [1]	10.2	10.2	9.7
Operating cash flow	**509** [1]	530 [1]	428	646	502
Investment in property, plant, and equipment	**273** [1]	237 [1]	248	297	374
Research & Development expenditures	**207** [1]	209 [1]	211	206	206
Depreciation and amortization	**330** [1]	325 [1]	301	265	257
Net working capital	**713**	1145 [1]	1 281	1 087	1 027
in % of sales	**16.2**	17.3 [1]	20.1	18.6	17.7
Total assets	**7 979** [1]	7 981 [1]	8 229	8 365	7 461
Equity (including non-controlling interests)	**2 677** [1]	2 970 [1]	2 939	2 546	2 494
Equity ratio (%)	**33.6**	37.2	35.7	30.4	33.4
Net financial debt	**1 372** [1]	1 374 [1]	1 539	1 540	1 312
Gearing ratio (%)	**51** [1]	46 [1]	52	60	53
Employees (in FTE)	**17 223** [1]	17 901 [1]	18 135	17 442	17 213

[1] Including discontinued operations

[2] Continuing operations

Into the New

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CLARIANT

Corporate Governance Report 2020

what is precious to you?

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Corporate Governance Report

Clariant is committed to international compliance standards, ensuring checks and balances between the Board and Management, as well as a sustainable approach to value creation.

1. Principles of corporate governance

In defining the management structure, organization, and processes of the Clariant Group, the corporate governance principles aim to provide stakeholder value and transparency to promote sustainable long-term success. The Group is committed to Swiss and international standards of corporate governance by following the respective statutory provisions and the rules issued by the SIX Swiss Exchange and by implementing the principles of the Swiss Code of Best Practices for Corporate Governance. The principles and regulations on corporate governance are described in the Swiss Code of Obligations, the Directive on Information relating to Corporate Governance by the SIX Swiss Exchange, the Ordinance against Excessive Compensation in Listed Stock Corporations, the Articles of Association of Clariant Ltd, the Bylaws, the organizational Group regulations of the Clariant Group, and the Clariant Code of Conduct. The Board of Directors adapts the internal documents regularly. The Articles of Association, the Bylaws of the Board of Directors, and the Clariant Code of Conduct can be viewed on the Internet at www.clariant.com/corporate-governance.

2. Group structure and shareholders

2.1. Group structure

The registered address of Clariant Ltd is Rothausstrasse 61, 4132 Muttenz, Switzerland. The company's business operations are conducted through Clariant Group companies. Clariant Ltd, a holding company organized under Swiss law, directly or indirectly owns all Clariant Group companies worldwide. With the exception of Clariant Chemicals (India) Ltd, these companies' shares are not publicly traded. Clariant owns 51 % of the publicly traded company Clariant Chemicals (India) Ltd, based in Airoli, Navi Mumbai, India, and listed on the Bombay Stock Exchange and the National Stock Exchange in India under Stock ID »CLNINDIA«, ISIN No. INE492A01029, with a market capitalization of INR 8 495 255 754 (approx. CHF 101 839 000).

The important subsidiaries of Clariant Ltd are listed in Note 37 of the »Notes to the consolidated financial statements of the Clariant Group« of the Financial Report 2020 (pages 63 to 65).

The Group conducts its business through seven Business Units: Additives; Catalysts; Functional Minerals; Industrial & Consumer Specialties; Oil and Mining Services; as well as the Business Unit Masterbatches (until the completion of the divestment effective 1 July 2020), and the Business Unit Pigments (held for sale) and reports its continuing operations in the following three Business Areas: Care Chemicals; Catalysis; and Natural Resources (including Additives).

2.2. Significant shareholdings of 3 % or more of total share capital

Based on the notifications received by Clariant and published by SIX Exchange Regulation, as of 31 December 2020, the following shareholders held 3 % or more of voting rights in Clariant Ltd:

Shareholders	Voting rights
SABIC International Holdings B.V., Sittard, The Netherlands, controlled by the Public Investment Fund of Saudi Arabia (PIF), Riyadh, Kingdom of Saudi Arabia	32.22 %[1]
APG Asset Management N.V., Amsterdam, The Netherlands	5.01%
BlackRock Inc., New York, United States	3.8%
Blue Beteiligungsgesellschaft mbH, Am Holzmaierfeld, 82064 Strasslach-Dingharting, Germany, and Maple Beteiligungsgesellschaft mbH, 82057 Icking, Germany[2]	3.49%

[1] SABIC acquired 24.99 % of the shares of Clariant Ltd on 17 September 2018, and increased its participation by 6.51 % to 31.5 % on 9 September 2020. The difference between this figure (i.e. 31.5 %) and the above-mentioned 32.22 % corresponds to the amount of treasury shares held by Clariant Ltd, which have to be aggregated to the shares held by SABIC solely for regulatory disclosure purposes due to the Governance Agreement entered into by SABIC and Clariant on 17 September 2018.

[2] According to a disclosure notification published on 18 December 2018, a group consisting of Konstantin Winterstein, 80333 Munich, Germany, and Elisabeth Prinzessin zu Sayn-Wittgenstein, 80333 Munich, Germany, was formed.

Disclosure notifications during the financial year 2020 reported to the Stock Exchange Disclosure Office pursuant to Article 120 of the Financial Markets Infrastructure Act (FMIA) as well as further information in relation to disclosure notifications can be found on the SIX Swiss Exchange reporting platform: www.six-exchange-regulation.com/en/home/publications/significant-shareholders.html

At 31 December 2020 Clariant AG itself held 2 385 509 shares in treasury, corresponding to 0.72 % of the share capital.

3. Cross-shareholdings

There are no cross-shareholdings.

4. Capital structure

4.1. Capital

As of 31 December 2020, the fully paid-in nominal share capital of Clariant Ltd totaled CHF 1 228 175 036.30 and was divided into 331 939 199 registered shares, each with a par value of CHF 3.70. Clariant Ltd shares have been listed on the SIX Swiss Exchange since 1995 (symbol: CLN, ISIN CH0012142631). Clariant Ltd does not issue non-voting equity securities (Genussscheine or Partizipationsscheine). Based on the closing price of the Clariant share of CHF 18.82 on 31 December 2020, the company's market capitalization at year-end amounted to CHF 6.247 billion. There was no change in the capital structure of Clariant Ltd in the last three years (2018 to 2020).

4.2. Conditional capital

The company's share capital may be increased by no more than CHF 14 103 978.20 by issuing the remaining 3 811 886 registered shares, each with a par value of CHF 3.70, corresponding to 1.14837 % of the current share capital.

The details are set out in Article 5 of the Articles of Association. The Articles of Association can be found on our website at www.clariant.com/en/Company/Corporate-Governance/Articles-of-Association

4.3. Extraordinary distribution — partly from capital reserves

In the 2020 calendar year, an extraordinary distribution in the total amount of CHF 3.00 per share [thereof CHF 2.385 from the confirmed capital contribution reserves and CHF 0.615 from voluntary retained earnings] was decided on by the Annual General Meeting in relation to, and conditional to, the sale of the masterbatches business. The total amount of CHF 917 710 191.85 was paid out on 8 July 2020.

A table with additional information on the distribution of capital reserves can be found on page 34 (Note 17) of the Financial Report 2020.

4.4. Transferability of shares

The transfer of registered shares requires the approval of the Board of Directors, which may delegate this function. Approval is granted if the acquirer discloses his/her identity and confirms that the shares have been acquired in his/her own name and for his/her own account.

4.5. Nominee registrations and voting rights

Each registered share entitles the holder to one vote at the shareholders' meetings. Special rules according to Article 6 of the Articles of Association (www.clariant.com/en/Company/Corporate-Governance/Articles-of-Association) apply to nominees who fail to disclose the identity of the persons they represent and whose shareholding exceeds 2 %.

4.6. Options

There are no options or option rights.

5. Board of Directors

The Board of Directors of Clariant Ltd comprises at least six and no more than twelve members pursuant to Article 19 of the Articles of Association of Clariant Ltd, and no Board member has reached, at the time of its election or reelection, the age of 70, in accordance with Article 20 of the Articles of Association (www.clariant.com/en/Company/Corporate-Governance/Articles-of-Association).

All members of the Board of Directors, except for Hariolf Kottmann, who held the position of CEO until 15 October 2018 and who has been serving as Executive Chairman ad interim from 24 July 2019 until 31 December 2020, are considered to be independent in accordance with best-practice standards. No member of the Board of Directors exceeds any of the maximum number of mandates as set forth in Article 38 of the Articles of Association (www.clariant.com/en/Company/Corporate-Governance/Articles-of-Association), except for Abdullah Mohammed Alissa in accordance with the transitional provision, Article 44, in the Articles of Association (www.clariant.com/en/Company/Corporate-Governance/Articles-of-Association).

5.1. Members of the Board of Directors

5.1.1. Hariolf Kottmann, German citizen

Function at Clariant: Chairman of the Board of Directors since 16 October 2018 and, from 24 July 2019 to 31 December 2020, Executive Chairman ad interim*
Born: 1955
Year of first election: 2008

Professional career: Hariolf Kottmann earned his PhD in organic chemistry at the University of Stuttgart in 1984. In 1985, he launched his career at the former Hoechst AG in Frankfurt, where he held several key management positions across the company's chemical divisions and functions. In 1996, he was appointed Deputy Head of the Basic Chemicals Division at Hoechst AG and took responsibility for the Inorganic Chemicals Business Unit. In 1998, he joined Celanese Ltd in New Jersey (United States) as a member of the Executive Committee and Head of the Organic Chemicals Business Unit. In April 2001, he was appointed as member of the Executive Committee of SGL Carbon AG, where he was responsible for the Graphite Specialties, Corrosion Protection, and Advanced Materials Divisions as well as the Eastern Europe and Asia regions until 30 September 2008. He was also in charge of the SGL Excellence and Technology & Innovation corporate functions. He has been a member of the Board of Directors of Clariant Ltd since April 2008 and became CEO of Clariant on 1 October 2008. He held this position until 15 October 2018.

Other activities: Board of Directors/Supervisory Board mandates as set forth in Article 38 para 1 of the Articles of Association (www.clariant.com/en/Company/Corporate-Governance/Articles-of-Association):
Mandates according to Article 38 para 1 lit. a) none.
Mandates according to Article 38 para 1 lit. b) two: Member of the Advisory Board and member of the Audit Committee of Plansee Holding AG, Austria; Member of the Advisory Board of Röhm GmbH, Darmstadt, Germany.
Mandates according to Article 38 para 1 lit. c) three: Member of the Board of Trustees of ETH Zurich Foundation; Member of the Board of Trustees of Aventis Foundation, Frankfurt; Chairman of the Board of the Clariant Foundation.

* New Chief Executive Officer (CEO) since 1 January 2021: Conrad Keijzer

5.1.2. Dr. Khaled Homza A. Nahas, Saudi Arabian citizen

Function at Clariant: Vice-Chairman, non-executive member of the Board of Directors
Born: 1949
Year of first election: 2018
Board member until 25th Annual General Meeting (29 June 2020)

Professional career: Dr. Khaled Homza A. Nahas holds the following degrees: a BSc in mining and engineering from the University of Washington, Seattle, USA; a master's degree in industrial engineering from the Oregon State University, Oregon, USA; PhD in engineering and economic systems from Stanford University, California, USA. Dr. Khaled Homza A. Nahas is a member of the SABIC Board of Directors, Head of the Risk and Sustainability Committee, and member of both the Audit and Investment Committees. Dr. Khaled Homza A. Nahas was a Board member of Hassanah Investment Company and the National Water Company until 2017. Previously, he held various positions in Saudi Arabia, including Vice President of the Industrial Committee in the Chamber of Commerce and Industry (1986 to 1989), and was also a member of the Shoura Council (1997 to 2001) and the Mayor of Mecca (2001 to 2006). Dr. Khaled Homza A. Nahas was also a member of the Boards of Directors of several companies, including Saudi Investment Bank, General Organization of Military Industries, Saudi Hotels & Resorts Company (SHARACO), Saudi Telecom Company STC, National Commercial Bank, and Riyad Bank. He was also Chairman of the Board of Directors of the National Company for Spring Mattresses & Sponges and the Tabuk Hotels Company.

Other activities: Board of Directors/Supervisory Board mandates as set forth in Article 38 para 1 of the Articles of Association (www.clariant.com/en/Company/Corporate-Governance/Articles-of-Association):
Mandates according to Article 38 para 1 lit. a) one: Saudi Basic Industries Corporation (SABIC), Saudi Arabia.
Mandates according to Article 38 para 1 lit. b) one: Methak Holding Ltd., Saudi Arabia.
Mandates according to Article 38 para 1 lit. c) none.

5.1.3. Abdullah Mohammed Alissa, Saudi Arabian citizen

Function at Clariant: Vice-Chairman since 29 June 2020, non-executive member of the Board of Directors
Born: 1956
Year of first election: 2018

Professional career: Abdullah Mohammed Alissa holds a BSc in industrial engineering and an MSc in engineering management from Southern Methodist University in Dallas, USA. Abdullah Mohammed Alissa is a member of the SABIC Board of Directors and member of both the Audit and Investment Committees. Abdullah Mohammed Alissa, currently Chairman of the Board of Riyad Bank, is also the Chairman of Assila Investments Company, DUR Hospitality Co., AMIAS Holding Co., and Abdullah Mohammed Alissa Consulting Engineers. Abdullah Mohammed Alissa is also on the Boards of several other companies, including Etihad Etisalat (Mobily). He previously held the positions of Chairman of National Medical Care Co. and Chairman of Arabian Cement, among other board memberships.

Other activities: Board of Directors/Supervisory Board mandates as set forth in Article 38 para 1 of the Articles of Association (www.clariant.com/en/Company/Corporate-Governance/Articles-of-Association):
Mandates according to Article 38 para 1 lit. a) four: Saudi Basic Industries Corporation (SABIC), Saudi Arabia; Riyad Bank, Saudi Arabia; DUR Hospitality Company, Saudi Arabia; Etihad Etisalat (Mobily), Saudi Arabia.
Mandates according to Article 38 para 1 lit. b) one: Assila Investments Company, Saudi Arabia.

Mandates according to Article 38 para 1 lit. c) two: Abdullah Mohammed Alissa Consulting Engineers, Saudi Arabia; AMIAS Holding Company, Saudi Arabia.

5.1.4. Nader Ibrahim Alwehibi, Saudi Arabian citizen

Function at Clariant: Non-executive member of the Board of Directors
Born: 1980
Year of first election: 2020

Professional career: Nader Ibrahim Alwehibi holds a master's degree in social protection policy from Maastricht University, The Netherlands, and a bachelor's degree in insurance from Indiana State University, USA. Nader Ibrahim Alwehibi is a member of SABIC's Board of Directors and serves on its Audit Committee and Risk and Sustainability Committee. He is currently the Assistant Governor for Insurance Affairs with the General Organization for Social Insurance (GOSI) of Saudi Arabia. He is also a member of the Board of Directors, a member of the Executive Committee, and a member of the Nominations & Compensations Committee of Riyad Bank. He previously served as a member of the Board of Directors of the National Medical Care Company and a member of the Board of Directors of Jarir Marketing Company. He also occupied several positions at the General Organization for Social Insurance (GOSI).

Other activities: Board of Directors/Supervisory Board mandates as set forth in Article 38 para 1 of the Articles of Association (www.clariant.com/en/Company/Corporate-Governance/Articles-of-Association):
Mandates according to Article 38 para 1 lit. a) two: Saudi Basic Industries Corporation (SABIC), Saudi Arabia; Riyad Bank, Saudi Arabia.
Mandates according to Article 38 para 1 lit. b) none.
Mandates according to Article 38 para 1 lit. c) one: Mudad, Saudi Arabia.

5.1.5. Günter von Au, German citizen

Function at Clariant: Non-executive member of the Board of Directors
Born: 1951
Year of first election: 2011

Professional career: After studying textile and polymer chemistry at Reutlingen University and chemistry at the University of Tübingen, where he obtained a doctorate, Günter von Au began his career in 1980 in Burghausen at Wacker-Chemie AG. He held a number of different management positions at the company through 2001 in Germany, Brazil, and the United States – most recently as Head of Wacker's division for polymers, specialty chemistry, and basic chemistry in Munich. He was also CEO of Wacker Polymer Systems GmbH & Co. KG in Burghausen, Germany. He joined Süd-Chemie in 2001 as President and CEO of Süd-Chemie Inc. In 2004, he became CEO of the Management Board of Süd-Chemie AG in Munich and held this position until 31 March 2012. On 1 April 2012, Mr. von Au joined the Board of Directors at Clariant Ltd and acted as Vice-Chairman of the Board of Directors until 16 October 2018.

Other activities: Board of Directors/Supervisory Board mandates as set forth in Article 38 para 1 of the Articles of Association (www.clariant.com/en/Company/Corporate-Governance/Articles-of-Association):
Mandates according to Article 38 para 1 lit. a) none.
Mandates according to Article 38 para 1 lit. b) four: Chairman of the Supervisory Board of Stada Arzneimittel AG, Germany; Member of the Advisory Committee of Gebr. Röchling KG, Germany; Chairman of the Board of CeramTec GmbH, Germany; Chairman of the Advisory Board of Tyczka GmbH, Germany.
Mandates according to Article 38 para 1 lit. c) none.

5.1.6. Calum MacLean, British citizen

Function at Clariant: Non-executive member of the Board of Directors
Born: 1963
Year of first election: 2018

Professional career: Calum MacLean holds a BSc (Hons) degree in chemistry from Aberdeen University, UK. Calum MacLean has been a member of the SABIC Board (Non-Executive Director) and a member of the Risk and Sustainability Committee since 2017. Calum MacLean has been Chief Executive Officer of Synthomer plc (UK FTSE 250 listed), a speciality chemical company, since January 2015. Previously, he was a founding member of INEOS Group, established in 1998. During his time at INEOS, he held a number of senior executive roles, including Chief Executive Officer of INEOS Refining from December 2006 to 2011, Chief Executive Officer of EVC Corporation and subsequently INEOS ChlorVinyls until 2005, Chief Executive Officer of INEOS Styrenics and subsequently Chairman of Styrolution (at that time a joint venture with BASF), and Chief Executive Officer of PetroIneos Refining (a joint venture with Petro China). Additionally, he served as the Chairman and Chief Executive Officer of INEOS Olefins and Polymers Europe and Chief Executive Officer of INEOS Phenol.

Other activities: Board of Directors/Supervisory Board mandates as set forth in Article 38 para 1 of the Articles of Association (www.clariant.com/en/Company/Corporate-Governance/Articles-of-Association):
Mandates according to Article 38 para 1 lit. a) two: Saudi Basic Industries Corporation (SABIC), Saudi Arabia; Synthomer plc, UK.
Mandates according to Article 38 para 1 lit. b) none.
Mandates according to Article 38 para 1 lit. c) none.

5.1.7. Thilo Mannhardt, German citizen

Function at Clariant: Non-executive member of the Board of Directors
Born: 1954
Year of first election: 2020

Professional career: Thilo Mannhardt studied aeronautical and space engineering and received a master's degree from the Technical University Berlin, Germany, where he also completed his PhD in 1985. In addition, he received a postgraduate certificate in Business Adminstration from the University of Hagen, Germany. After several years in academia and research, Thilo Mannhardt joined McKinsey & Co., Inc., in 1985. For 28 years until his retirement in 2012, he held various leadership roles in Europe, Latin America, and Africa, most recently as Senior Partner and Director. Thilo Mannhardt is a member of the Board of Directors of Algar Telecom, leading the Audit and Risk Committee since 2017. Since 2018, he has been a Board member and advisor of BMI/White Fox Management and was appointed to the newly formed Board of C&A Brazil in 2019. In 2020, he joined the advisory council of Logus Capital Financial Advisors. He previously was in the advisory council of PE Victoria Capital. He was a member of the Board of Directors and CEO of Ultrapar SA from 2011 – 2018.

Other activities: Board of Directors/Supervisory Board mandates as set forth in Article 38 para 1 of the Articles of Association (www.clariant.com/en/Company/Corporate-Governance/Articles-of-Association):
Mandates according to Article 38 para 1 lit. a) one: C&A Modas S.A., Brazil.
Mandates according to Article 38 para 1 lit. b) one: Algar Telecom, Brazil.
Mandates according to Article 38 para 1 lit. c) two: BMI Holding, Brazil; Logus Capital Financial Advisors, Brazil.

5.1.8. Geoffery Merszei, Canadian and Swiss citizen

Function at Clariant: Non-executive member of the Board of Directors
Born: 1951
Year of first election: 2018

Professional career: Geoffery Merszei holds a BSc in economics from Albion College in Michigan, USA. Geoffery Merszei is the Chairman and Chief Executive of Zolenza AG, an investment and advisory firm based in Zug, Switzerland. Geoffery Merszei was previously the Executive Vice President of The Dow Chemical Company, President of Dow Europe, the Middle East, and Africa, and Chairman of Dow Europe before retiring in 2013. He served on Dow's board from 2005 to 2009 and was the Lead Director on the board of Dow Corning Corporation. He was also Chairman of Dow's Geographic Leadership Council and a member of Dow's Executive Leadership Committee. Previously, he was Dow's Executive Vice President and Chief Financial Officer. In 2001, Geoffery Merszei served as Executive Vice President and Chief Financial Officer of Alcan Inc. He has also served as a board member of the Chemical Financial Corporation and as a trustee and executive committee member of the United States Council for International Business.

Further board mandates include OC Oerlikon Corporation AG and EuroChem Group AG.

Other activities: Board of Directors/Supervisory Board mandates as set forth in Article 38 para 1 of the Articles of Association (www.clariant.com/en/Company/Corporate-Governance/Articles-of-Association):
Mandates according to Article 38 para 1 lit. a) one: OC Oerlikon Corporation AG, Switzerland.
Mandates according to Article 38 para 1 lit. b) none.
Mandates according to Article 38 para 1 lit. c) one: Zolenza AG, Switzerland.

5.1.9. Eveline Saupper, Swiss citizen

Function at Clariant: Non-executive member of the Board of Directors; independent Lead Director from 24 July 2019 to 31 December 2020*
Born: 1958
Year of first election: 2016

Professional career: Eveline Saupper studied law at the University of St. Gallen, Switzerland (HSG). She was a partner at the law firm Homburger AG, Zurich, Switzerland, until 2014 and Of Counsel of said law firm until March 2017. Before joining Homburger in 1985, she worked as a tax specialist with Peat Marwick Mitchell (today KPMG) in Zurich. She holds a PhD in law from the University of St. Gallen and passed her bar exams in Zurich. Eveline Saupper is also a certified tax expert.

Other activities: Board of Directors/Supervisory Board mandates as set forth in Article 38 para 1 of the Articles of Association (www.clariant.com/en/Company/Corporate-Governance/Articles-of-Association):
Mandates according to Article 38 para 1 lit. a) two: Flughafen Zürich AG, Switzerland; Georg Fischer AG, Switzerland.
Mandates according to Article 38 para 1 lit. b) one: Stäubli Holding AG, Switzerland.
Mandates according to Article 38 para 1 lit. c) three: Mentex Holding AG, Switzerland; UZH Foundation [University of Zurich], Switzerland; Tourismus Savognin Bivio Albula AG, Switzerland.

* On 31 December 2020, Hariolf Kottmann stepped down from his function as Executive Chairman ad interim as Conrad Keijzer was appointed Chief Executive Officer (CEO) effective 1 January 2021.

5.1.10. Carlo G. Soave, British citizen

Function at Clariant: Non-executive member of the Board of Directors
Born: 1960
Year of first election: 2008
Board member until 25th Annual General Meeting (29 June 2020)

Professional career: Carlo G. Soave studied languages and economics at Heriot-Watt University in Edinburgh, Scotland. He launched his career in 1982 at Oerlikon-Bührle in Switzerland, moving to Procter & Gamble in 1984. There, he held various senior management positions, including Vice President of Global Purchasing for the Fabric and Home Care Division. In 2004, he founded

Soave & Associates, a consulting company based in Brussels, Belgium. He is an Advisory Board member of MonoSol LLC, a company based in Indiana (United States) that belongs to the Kuraray Group (Japan).

Other activities: Board of Directors/Supervisory Board mandates as set forth in Article 38 para 1 of the Articles of Association (www.clariant.com/en/Company/Corporate-Governance/Articles-of-Association):
Mandates according to Article 38 para 1 lit. a): none.
Mandates according to Article 38 para 1 lit. b) one: Advisory Board of MonoSol LLC, United States.
Mandates according to Article 38 para 1 lit. c) one: Managing Director of Soave & Associates, Belgium.

5.1.11. Peter Steiner, German citizen

Function at Clariant: Non-executive member of the Board of Directors
Born: 1959
Year of first election: 2016

Professional career: Peter Steiner studied business administration in Mannheim and Cologne, Germany, and finished with a master's degree. He is a German certified public accountant, tax advisor, and business consultant with a focus on mergers and acquisitions, financing, and investment management. Peter Steiner was previously a partner of the investment company One Equity Partners LLC and worked for MG Technologies AG as its Chief Financial Officer. At Dyckerhoff AG, he was successively CFO, Chief Operating Officer, and finally CEO. Following his many years as an auditor with Arthur Andersen & Co., he was also CFO of Süba Bau AG.

Other activities: Board of Directors/Supervisory Board mandates as set forth in Article 38 para 1 of the Articles of Association (www.clariant.com/en/Company/Corporate-Governance/Articles-of-Association):
Mandates according to Article 38 para 1 lit. a) two: Wienerberger AG, Austria; Zeal Network SE, Germany.
Mandates according to Article 38 para 1 lit. b) one: RKW Holding SARL, Luxembourg.
Mandates according to Article 38 para 1 lit. c) none.

5.1.12. Claudia Suessmuth Dyckerhoff, German citizen

Function at Clariant: Non-executive member of the Board of Directors
Born: 1967
Year of first election: 2016

Professional career: Claudia Suessmuth Dyckerhoff holds a PhD in business administration from the University of St. Gallen/University of Michigan Ann Arbor, USA, focusing on strategy, organization, and operational excellence. Claudia Suessmuth Dyckerhoff also holds an MBA from CEMS/ESADE. She joined McKinsey & Company in Switzerland in 1995 and since then focused on advising mainly healthcare companies in Europe, the United States, Greater China, and across Asia. She was a Senior Partner at McKinsey and led the Asia Health Services and Systems sector within McKinsey until March 2016, when she became a Senior External Advisor to McKinsey.

Other activities: Board of Directors/Supervisory Board mandates as set forth in Article 38 para 1 of the Articles of Association (www.clariant.com/en/Company/Corporate-Governance/Articles-of-Association):
Mandates according to Article 38 para 1 lit. a) two: Roche Holding AG, Switzerland; Ramsay Health Care (Sydney), Australia.
Mandates according to Article 38 para 1 lit. b) three: QuEST Global Services Pte. Ltd., Singapore; Cyrcadia Ltd., Hong Kong (start-up); Edugreen Education & Services Ltd., Kolkata, India (start-up).
Mandates according to Article 38 para 1 lit. c) four: Buurtzorg Neighborhood Care Asia Ltd., Hong Kong; University of St. Gallen, Switzerland; IMA [International Market Assessment], Shanghai, China; St. Galler Stiftung für Internationale Studien (SSIS), Switzerland.

5.1.13. Susanne Wamsler, US citizen

Function at Clariant: Non-executive member of the Board of Directors
Born: 1961
Year of first election: 2015

Professional career: Susanne Wamsler studied at Princeton University in Princeton, New Jersey, USA, graduating with a degree in political economy. From 1984 to 1988, she held various positions with Deutsche Bank AG in Munich and New York. In 1989, she received her MBA from INSEAD in Fontainebleau, France. Since then, she has been a successful entrepreneur in different fields, including retail, real estate, telecommunications, and wealth management. She complemented her education with certificates in board membership and corporate governance and has previously held mandates and officer positions in different businesses as well as nonprofit organizations before joining the Clariant Board.

Other activities: Board of Directors/Supervisory Board mandates as set forth in Article 38 para 1 of the Articles of Association (www.clariant.com/en/Company/Corporate-Governance/Articles-of-Association): none.

5.1.14. Konstantin Winterstein, German citizen

Function at Clariant: Non-executive member of the Board of Directors
Born: 1969
Year of first election: 2011

Professional career: Konstantin Winterstein studied at the Technical Universities in Darmstadt and in Berlin, where he completed a degree in production engineering. In 2004, he received his MBA from INSEAD in Fontainebleau and Singapore. From 1997 to 2014, he held various positions with the BMW Group. Since 2014, he has been a member of the management board of Ringmetall AG in Munich, and Co-CEO since 2017. From 2006 to 2011, he served on the Supervisory Board of Süd-Chemie AG.

Other activities: Board of Directors/Supervisory Board mandates as set forth in Article 38 para 1 of the Articles of Association (www.clariant.com/en/Company/Corporate-Governance/Articles-of-Association):
Mandates according to Article 38 para 1 lit. a) one: Ringmetall AG, Germany.
Mandates according to Article 38 para 1 lit. b) one: GFT Holding GmbH, Germany.
Mandates according to Article 38 para 1 lit. c) none.

5.2. Cross-involvement

There are no cross-involvements.

6. Elections

The members of the Board of Directors of Clariant Ltd, the Chairman of the Board of Directors, as well as the members of the Compensation Committee will be elected individually for a term of one year by the Annual General Meeting. Only members of the Board of Directors are eligible to serve on the Compensation Committee.

7. Internal organizational structure

7.1. The Board of Directors and its committees

The Board of Directors consists of the Chairman, one or more Vice-Chairpersons, and the other members. Except for Hariolf Kottmann, who held the position of CEO until 15 October 2018, none of the non-executive members of the Board of Directors held a senior management position at Clariant Ltd or any current or former Clariant Group company between 2018 and 2020 or has any significant business relationship with Clariant Ltd or any other Clariant Group company. Hariolf Kottmann has also held, ad interim, the position of Executive Chairman from 24 July 2019 until 31 December 2020. The members of the Board of Directors constitute the following committees:
— Nomination Committee
— Compensation Committee
— Audit Committee

The **Board of Directors** appoints the members of the committees, except for the members of the Compensation Committee, who are elected by the Annual General Meeting. The Board of Directors meets at least once a quarter. At the invitation of the Chairman, the CEO, the CFO, and other members of the Executive Committee and/or other employees and third parties attend the meetings of the Board of Directors for the purpose of reporting or imparting information. Each committee has a written charter outlining its duties and responsibilities. The committees' charters are published on Clariant's website (www.clariant.com/committees). The committees report on their activities and results to the Board of Directors. They prepare the business of the Board of Directors in their respective areas.

BOARD OF DIRECTORS – COMMITTEE RESPONSIBILITIES AND MEETINGS

Member of the Board of Directors	Nomination Committee		Audit Committee		Compensation Committee	
Number of meetings in 2020	4	*	6	*	4	*
Hariolf Kottmann	■ since 16 October 2018	4				
Dr. Khaled Homza A. Nahas	■ from 16 October 2018 until 29 June 2020	1				
Abdullah Mohammed Alissa					■ since 16 October 2018	4
Günter von Au	■ since 29 June 2020	3	■ from 2015 until 29 June 2020	3		
Calum MacLean	■ since 16 October 2018	4				
Geoffery Merszei			■ since 16 October 2018	6		
Eveline Saupper			■ since 2016	6	■ since 16 October 2018 ■ since 2016	4
Carlo G. Soave	■ from 2012 until 29 June 2020	1			■ from 2012 until 29 June 2020 ■ until 16 October 2018	4
Peter Steiner	■ since 2016	4	■ since 2016	6		
Claudia Suessmuth Dyckerhoff					■ since 16 October 2018	3
Susanne Wamsler					■ since 16 October 2018	4
Konstantin Winterstein			■ from 2012 until April 2016 and since March 2017	6		

■ Chairman
■ Member
* = Number of meetings attended in 2020

The **Nomination Committee** (NC) comprises the Chairman, the Vice-Chairman, and at least two other members of the Board of Directors. The NC meets as needed. The NC draws up principles for the selection of candidates for election and reelection to the Board of Directors and to the CEO and other members of the Executive Committee and prepares the corresponding recommendations. The NC considers and submits to the Board of Directors the CEO's proposals concerning candidates for Executive Committee positions. www.clariant.com/committees

The **Compensation Committee** (CoC) comprises five members of the Board of Directors as elected by the Annual General Meeting. The majority of the members shall be non-executive members of the Board of Directors. The CoC meets at least twice a year. It reviews and proposes to the Board of Directors the compensation and benefits policies and programs, reviews the performance criteria relevant to compensation, and determines individual executive compensation and benefits of the members of the Board of Directors and the Executive Committee, subject to the approvals of the total compensations by the Annual General Meeting. Furthermore, the CoC reviews fringe benefit regulations and dismissal regulations with the CEO, members of the Executive Committee, Heads of Global Functions and Global Business Units, and Region Heads always in accordance with the Articles of Association and the Ordinance against Excessive Compensation in Listed Stock Corporations. More information can be found in the 2020 Compensation Report, section 1, page 3 (reports.clariant.com/2020/compensation/pdf/en) and at www.clariant.com/committees

The **Audit Committee** (AC) comprises two to five members of the Board of Directors, all of whom must be independent, non-executive members of the Board of Directors. A majority of the members of the AC must have financial and accounting experience.

The AC reviews the activities of the external auditors, their collaboration with the internal auditors, and their organizational adequacy. It also reviews the performance, compensation, and independence of the external auditors as well as the performance of the internal auditors and reports back to the Board of Directors. Furthermore, the AC reviews the company's internal control and risk management systems and reviews compliance with the law and internal regulations – in particular with the Code of Conduct. In collaboration with the Group's external and internal auditors and financial and accounting management, the AC reviews the appropriateness, effectiveness, and the compliance of accounting policies and financial controls with applicable accounting standards. The AC meets at least four times a year. The AC reviews and recommends the Group's financial statements for the first three quarters of each year and the annual financial results to the Board of Directors for approval.
www.clariant.com/committees

7.2. Definition of working methods and areas of responsibility

In accordance with the law and the Articles of Association, the Board of Directors is the ultimate decision-making authority for Clariant Ltd in all matters except those decisions reserved by law or the Articles of Association for the shareholders. In accordance with and supplementary to Article 716a of the Swiss Code of Obligations and Article 22 of the Articles of Association (www.clariant.com/en/Company/Corporate-Governance/Articles-of-Association), the Board of Directors has sole authority particularly for the following nontransferable and inalienable duties of the Board of Directors:

— Providing the strategic direction of the Group;
— Approving the basic outline of the Group's organization and its corporate governance;
— Supervising the overall business operations;
— Evaluating the performance of the CEO and members of the Executive Committee;
— Appointing and dismissing the CEO and members of the Executive Committee, the Head of Corporate Auditing, and other key executives;
— Approving the basic accounting system and financial planning and control of the Group;
— Approving the Group's annual budget;
— Reviewing and approving the quarterly financial statements and results release for Clariant Ltd and the Group;
— Approving the Group's consolidated financial statements at the end of the financial year for submission to the Annual General Meeting;
— Approval and review of ESG-related reporting;
— Approving major M&A transactions and financial transactions of considerable scope or those involving special risks, particularly capital market transactions and other financing transactions (e.g., large loans) as well as changes in conditions associated therewith;
— Ensuring a management and corporate culture that is appropriate for the company's objectives;
— Ensuring an internal control system and adequate risk and compliance management, particularly with regard to financial, corporate governance and citizenship, personnel, and environmental protection matters;
— Ensuring succession planning and management development;
— Convening the Annual General Meeting (AGM) and determining the items on the agenda and the proposals to be made to the AGM.

7.3. Working methods

In 2020, the Board of Directors held three meetings in person in Switzerland, and eight meetings were held by phone. One meeting lasted two days. All eleven Board meetings held in 2020 were attended by all Board members. The company's strategy is reviewed and further developed once a year. Members of the Executive Committee and the General Counsel are invited to attend the meetings of the Board of Directors. The views of external and internal consultants are heard, if necessary, in the case of projects of considerable scope.

BOARD OF DIRECTORS MEETINGS	
Number of meetings in 2020	11
Board of Directors	
Hariolf Kottmann	11
Dr. Khaled Homza A. Nahas	5
Abdullah Mohammed Alissa	11
Nader Alwehibi	6
Günter von Au	11
Calum MacLean	11
Thilo Mannhardt	6
Geoffery Merszei	11
Eveline Saupper	11
Carlo G. Soave	5
Peter Steiner	11
Claudia Suessmuth Dyckerhoff	11
Susanne Wamsler	11
Konstantin Winterstein	11

7.4. Management of the Group

The Board of Directors has delegated the executive management of the Clariant Group to the CEO and the other members of the Executive Committee. The Executive Committee is mainly responsible for implementing and monitoring the Group strategy, for the financial and operational management of the Group, and for the efficiency of the Group's structure and organization. The members of the Executive Committee are appointed by the Board of Directors on the recommendation of the Nomination Committee. Subject to the responsibility of the Board of Directors and the Annual General Meeting, the CEO and, under his supervision, the Executive Committee are responsible for:

— Drawing up strategic plans and policies for approval by the Board of Directors;
— Implementing Group strategies and policies as well as strategies and action programs for individual Business Units and subsidiaries;
— Managing the Business Units and functions to ensure efficient operations, including regularly assessing the achievement of goals;
— Regularly informing the Board of Directors and its committees of all matters of fundamental significance to the Group and its businesses;
— Ensuring compliance with legal requirements and internal regulations;
— Establishing a management and corporate culture in line with the company's objectives;
— Promoting an active internal and external communications policy;
— Appointing and dismissing senior management, including appropriate succession planning.

The Executive Committee is supported by the Corporate Center, which defines Group-wide policies and guidelines. While reporting in the three Business Areas Care Chemicals (Business Unit Industrial & Consumer Specialties and New Business), Catalysis (Business Unit Catalysts and Business Line Biofuels & Derivatives), and Natural Resources (Business Units Oil and Mining Services, Functional Minerals, and Additives), including the Business Units Masterbatches [sold effective 1 July 2020] and Pigments as discontinued operations, the seven Business Units are the highest-level operating units within the Group. They have global responsibility for the activities assigned to them, particularly sales, marketing, product management, and production. The Business Units also have global responsibility for short- and long-term revenue and earnings generated from the operations and assets assigned to them. This includes fully exploiting existing business potential, identifying new business opportunities, and pursuing the active management of their products and services portfolio. The Business Units' activities are complemented and supported by global Group functions (e.g., Procurement, Finance, Information Technology, Legal, Human Resources, and Group Technology & Innovation), which are organized as service centers.

7.5. Information and control instruments vis-à-vis the Executive Committee

The Board of Directors ensures that it receives sufficient information from the Executive Committee to perform its supervisory duties and make decisions that are reserved for the Board of Directors. The Board of Directors obtains the information required to perform its duties in various ways:

— The CEO and the CFO inform all directors regularly about current developments, including through the regular submission of written reports, such as key performance indicators for each business;
— The minutes of the meetings of the Executive Committee are made available to the directors;
— Informal meetings and teleconferences are held, as required, between the CEO and the members of the Nomination Committee;
— The members of the Executive Committee are invited to attend meetings of the Board of Directors to report on Business Units under their responsibility;
— The members of the Board of Directors are entitled to request information from members of the Executive Committee or any other Clariant senior manager.

BOARD OF DIRECTORS – COMMITTEE MEETINGS

	Number of meetings	Average duration in h	CEO/CFO may be invited	Other attendees
Board of Directors	11	3 – 7	yes	Executive Committee; General Counsel
Nomination Committee	4	2 – 4	yes	
Audit Committee	6	3 – 4	CFO	Auditors; Head Corporate Auditing; Head Corporate Accounting; General Counsel; Group Compliance Officer in two meetings
Compensation Committee	4	1.5 – 2	yes[1]	Head of Group Human Resources

[1] Except when discussing the remuneration of the CEO or any other member of the Executive Committee

7.6. Board committees

The CFO and representatives of the external auditor are invited to Audit Committee meetings. Furthermore, the Heads of Corporate Auditing and Risk Management, the Group Compliance Officer, and Clariant's General Counsel report on a regular basis to the Audit Committee. The Audit Committee reviews the financial reporting processes on behalf of the Board of Directors. For each quarterly and annual reporting of financial information, an internal team reviews the information for accuracy and completeness of disclosures, reporting to the Audit Committee before publication. The Compensation Committee generally meets at least twice per year to adjust the development of the compensation structures to changing conditions, as necessary. In this context, the long-term incentive program for the Executive Committee and the senior management team is also aligned with current market and business developments, and corresponding adjustments are made, if required.

7.7. Internal audit (Corporate Auditing)

Corporate Auditing carries out operational and system audits in accordance with a plan adopted by the Audit Committee. By assisting organizational units in the accomplishment of objectives, it provides an independent approach for the evaluation, improvement, and effectiveness of the internal control framework. The quality of Corporate Auditing is regularly assessed in accordance with the requirements of The Institute of Internal Auditors (IIA). Corporate Auditing also prepares reports on the audits it has performed and reports actual or suspected irregularities to the Audit Committee and the Chairman of the Board of Directors. The Audit Committee regularly reviews the scope, plans, and results of Corporate Auditing. The Group pursues a risk-oriented approach to auditing and coordinates internal audit activities with the external auditors on a regular basis. More information on Clariant's risk management system can be found on page 15.

8. Group management

8.1. The Executive Committee

The Executive Committee (EC) consists of the CEO, the CFO, and two other members. The Executive Committee regularly holds meetings at the Corporate Center in Pratteln or at other Clariant sites worldwide. It uses such external meetings to discuss business performance with the management of the local companies in person.

8.2. Members of the Executive Committee

The Executive Committee comprised the following members:

8.2.1. Hariolf Kottmann, German citizen, Executive Chairman ad interim from 24 July 2019 until 31 December 2020

Hariolf Kottmann acted as Executive Chairman ad interim from 24 July 2018 until 31 December 2020.*

Operational responsibilities: Group Auditing (jointly with the chairman of the Audit Committee); Group Compliance (since 1 April 2020); Group Communication; Group Legal; Group Human Resources.

Hariolf Kottmann earned his PhD in organic chemistry at the University of Stuttgart in 1984. In 1985, he launched his career at the former Hoechst AG in Frankfurt, where he held several key management positions across the company's chemical divisions and functions. In 1996, he was appointed Deputy Head of the Basic Chemicals Division at Hoechst AG and took responsibility for the Inorganic Chemicals Business Unit. In 1998, he joined Celanese Ltd in New Jersey (United States) as member of the Executive Committee and Head of the Organic Chemicals Business Unit. In April 2001, he was appointed member of the Executive Committee of SGL Carbon AG, where he was responsible for the Graphite Specialties, Corrosion Protection, and Advanced Materials Divisions as well as the Eastern Europe and Asia regions until 30 September 2008. He was also in charge of the SGL Excellence and Technology & Innovation corporate functions. He became CEO of Clariant on 1 October 2008 and held this position until 15 October 2018.

* The new Chief Executive Officer (CEO) Conrad Keijzer assumed his role on 1 January 2021.

8.2.2. Hans Bohnen, German citizen, Executive Vice President & Chief Operating Officer (COO), EC member since 12 October 2018

Operational responsibilities: Business Unit Additives; Business Unit Catalysts; Business Unit Industrial & Consumer Specialties; Business Unit Oil and Mining Services; Group Procurement Services (until 9 April 2020); Group Technology & Innovation; Digital4Clariant; regions Latin America and North America.

Hans Bohnen studied chemistry at the University of Duisburg-Essen, Germany, obtained a PhD in chemistry from the University of Tübingen, Germany, and holds an MBA from the Aston Business School. Hans Bohnen began his career in 1995 as a research chemist at Hoechst AG. Between 1995 and 2006, he held several senior positions in research & development and operations across Europe and North America for Hoechst AG, Celanese AG, and SGL Group.

From 2007 to 2009, he worked in strategic management consultancy with Booz Allen Hamilton. In 2010, he became Senior Vice President and Head of Clariant's Business Unit Masterbatches. In 2015, he was appointed Head of Clariant's Global Business Services to build up Clariant's internal shared service organization. On 12 October 2018, he was appointed member of the Executive Committee of Clariant.

8.2.3. Bernd Hoegemann, German citizen, Executive Vice President & Chief Transformation Officer, EC member since 1 November 2019

Operational responsibilities: Business Unit Functional Minerals; Business Unit Pigments; Business Unit Masterbatches (until the completion of the divestment effective 1 July 2020); Group Procurement Services (since 9 April 2020); Project Clariant 2021; Divestment Projects; Clariant Excellence; Corporate Planning & Strategy; Corporate Sustainability & Regulatory Affairs (including Corporate ESHA); region Asia-Pacific (i.e. India, Southeast Asia & Pacific, Japan, Greater China).

In 2006, Bernd Hoegemann received his doctorate in economics from the University of Munster, Germany, where he had also completed his master's degree in psychology. He also holds a master's degree in business administration from the University of Hagen, Germany. He began his career as a consultant in 2000 and has held several positions as a senior consultant with renowned companies. In 2008, he joined Clariant, where he was responsible for Senior Management Development. From 2012 until 2017, he headed the Clariant Excellence unit. From 2015 until 2018, Bernd Hoegemann was Head of Corporate Planning & Strategy. He was appointed Head of the Business Unit Masterbatches in 2018 and, on 1 November 2019, appointed member of the Executive Committee of Clariant.

8.2.4. Patrick Jany, German citizen, Chief Financial Officer (CFO) until 31 March 2020

Operational responsibilities: Corporate Accounting; Corporate Controlling; Corporate Tax; Corporate Treasury; Corporate Mergers & Acquisitions; Group Finance Services; Global Business Services; Group Compliance; Group Information Technology; Investor Relations; regions Europe and Middle East & Africa.
Patrick Jany studied economics at the École Supérieure de Commerce de Paris. He has been Chief Financial Officer at Clariant since 1 January 2006. In 1990, he joined Sandoz – one of Clariant's predecessor companies. He held various positions in finance and controlling at Sandoz and Clariant, including Chief Financial Officer for the ASEAN region and Head of Controlling for the Pigments & Additives Division. From 2003 to 2004, he was Head of Country Organization for Clariant in Mexico. Prior to his appointment as CFO, he was Clariant's Head of Corporate Development with responsibility for Group strategy and mergers and acquisitions.

8.2.5. Stephan Lynen, German citizen, Executive Vice President & Chief Financial Officer (CFO), CFO and EC member since 1 April 2020

Operational responsibilities: Corporate Accounting; Corporate Controlling; Corporate Mergers & Acquisitions; Corporate Tax; Corporate Treasury; Global Business Services; Group Finance Services; Group Investor Relations; Group Information Technology; and the region Europe, Middle East & Africa.
Stephan Lynen studied business administration at the University of Cologne and economics and finance at University of California, Los Angeles, USA. In 1998, he joined Clariant as a corporate internal auditor and took various leading positions in finance at our headquarters, in Turkey, and in Japan and lead several M&A projects before becoming Head of Group Controlling. From 2013 to 2014, Stephan Lynen was the General Manager of Clariant's Joint Venture Global Amines Company in Singapore. Starting in 2015, he held the position of Head of Business Unit Industrial & Consumer Specialties for the Asia-Pacific region before starting his previous role as global Head of Business Unit Additives in 2016. On 1 April 2020, he was appointed CFO and member of the Executive Committee of Clariant.

8.3. Other activities and functions

While the members of the Executive Committee may undertake other activities in accordance with Article 38 para 2 of the Articles of Association (www.clariant.com/en/Company/Corporate-Governance/Articles-of-Association), none of the members of the Executive Committee undertake other activities or hold consultancy functions or other offices, except for

— Patrick Jany (with Clariant until 31 March 2020): member of the Board of Directors and of the Audit Committee of Comet Holding AG, Switzerland, since 25 April 2019 and, since 21 June 2019, independent Lead Director.

8.4. Management contracts with third parties

There are no management contracts with third parties.

8.5. Contractual arrangements for members of the Executive Committee

All members of the Executive Committee hold employment contracts with Clariant International Ltd, the Clariant Group's management company. The contractual provisions are governed exclusively by Swiss law. Contracts of the members of the Executive Committee are subject to a standard notice period of twelve months.

9. Remuneration, shareholdings, and loans

All information on the remuneration of the Board of Directors and the Executive Committee of Clariant Ltd can be found in the 2020 Compensation Report (reports.clariant.com/2020/compensation/pdf/en) and in Note 14 (pages 80 and 81) of the Financial Statements of Clariant Ltd in the Financial Report 2020.

10. Shareholders' participation rights

Subject to Article 6 para 2 of the Articles of Association (www.clariant.com/en/Company/Corporate-Governance/Articles-of-Association), providing certain limitations on voting by nominees, each registered share entitles the holder to one vote at the Annual General Meeting. Shareholders have the right to receive dividends and such other rights as are granted by the Swiss Code of Obligations. However, only shareholders entered in the Clariant share register may exercise their voting rights.

10.1. Voting right restrictions and representation

A registered shareholder may be represented at the Annual General Meeting by another shareholder with the right to vote, a legal representative, or by the independent proxy (unabhängiger Stimmrechtsvertreter). The shares held by any one shareholder may be represented by only one representative. There are no special rules for waiving any voting rights restrictions laid down in the Articles of Association. The Articles of Association also do not contain any rules on participation in the Annual General Meeting that differ from the standard terms proposed by law.

10.2. Statutory quorums

The quorums laid down in the Articles of Association correspond to those in Article 704 of the Swiss Code of Obligations.

10.3. Convocation of the Annual General Meeting

The Articles of Association do not contain any rules that differ from the standard terms proposed by law.

10.4. Proposal of agenda items for the 2022 Annual General Meeting

The Articles of Association do not contain any rules that differ from the standard terms proposed by law. Shareholders representing shares with a total par value of CHF 1 million have the right to submit written requests that an item be included on the agenda at least 45 days prior to the 27th Annual General Meeting on 1 April 2022. Items to be included on the agenda – with regard to the 2021 financial year – must be submitted no later than 14 February 2022. Such requests must specify the item(s) to be included on the agenda and must contain a proposal on which the shareholder requests a vote.

10.5. Entries in the share register

There are no statutory rules concerning deadlines for entry in the share register. However, for practical reasons, the share register will be closed to entries several days before a shareholder meeting. With regard to the 2022 Annual General Meeting concerning the financial year 2021, this applies as of 30 March 2022. Shareholders who have been entered into the share register by 29 March 2022 may exercise their right to vote at the Annual General Meeting on 1 April 2022. There are no voting rights restrictions except those mentioned above.

11. Change of control and defense measures

The limit beyond which the duty to make an offer applies is the same as the statutory minimum, 33 1/3 %. There are no clauses on changes of control in agreements with members of the Board of Directors and the Executive Committee other than

a) with regard to the Performance Share Units (PSUs): PSUs unvested at the date of change of control vest on a pro-rata basis. The Board of Directors is authorized, at its discretion, to assess if the performance targets are met and to decide on settlement in shares or in cash;
b) with regard to the Matching Share Plan (MSP): The blocking period of the Investment Shares of the MSP terminates on the date of the change of control and entitles to receive Matching Shares on a pro-rata basis;
c) with regard to the Clariant Long-Term Incentive Plan (CLIP): a pro-rata settlement in cash of the vested Performance Share Units on the assumed basis that performance targets had been achieved to 80 %.

12. Information policy

Notices are published, in accordance with Article 42 of the Articles of Association (www.clariant.com/en/Company/Corporate-Governance/Articles-of-Association), in the Swiss Official Gazette of Commerce and in daily newspapers specified by the Board of Directors (currently Basler Zeitung , Finanz und Wirtschaft, and Neue Zürcher Zeitung). Clariant releases its annual financial results in the form of financial statements and publishes further information in the form of an Integrated Report in electronic form. In addition, business figures for the first quarter, half year, nine months, and full year are published in electronic form in April, July, October, and February of the following year, respectively. Current publication dates can be found online in English on our website (www.clariant.com/UpcomingEvents). All information pertaining to investor updates as well as presentations at analyst and investor conferences can be obtained online (www.clariant.com) or at the following address:

Clariant International Ltd, Investor Relations, Hardstrasse 61, 4133 Pratteln, Switzerland, investor-relations@clariant.com, Phone +41 61 469 63 73.

The results for the 2021 financial year will be published as follows:

— Interim Report on the first quarter	29 April 2021
— Interim Report on the first half	29 July 2021
— Interim Report on the nine months	28 October 2021
— Full-Year Results	16 February 2022

12.1. The Annual General Meeting for the 2021 financial year will take place on the following date

1 April 2022

12.2. Weblinks

12.2.1. Clariant website

www.clariant.com

12.2.2. E-mail distribution list (push system)

www.clariant.com/SubscriptionForm

12.2.3. Ad hoc messages (pull system)

www.clariant.com/AdHocNews

12.2.4. Financial reports

www.clariant.com/Publications

12.2.5. Corporate calendar

www.clariant.com/UpcomingEvents

13. Auditors

13.1. Duration of the mandate and term of office of the lead auditor

PricewaterhouseCoopers (PwC) has held the mandate since Clariant Ltd was established in 1995. The principle of rotation applies to the lead auditor, Rolf Johner, who was first appointed in April 2016. The Audit Committee ensures that the position of lead auditor is changed at least every seven years.

13.2. Auditing fees

PricewaterhouseCoopers received a fee of CHF 5.9 million for auditing the 2020 financial statements, comprising recurring audit services of CHF 4.1 million (2019: CHF 4.8 million) and audit services related to disposal projects of CHF 1.8 million.

13.3. Additional fees

PricewaterhouseCoopers received a total fee of CHF 0.5 million for additional services (2019: CHF 0.8 million). These services comprise audit-related services of CHF 0.2 million and tax services of CHF 0.3 million. No consulting services were rendered in 2020 (2019: CHF 0.1 million).

13.4. Supervisory and control instruments vis-à-vis the auditors

The Audit Committee of the Board of Directors is responsible for overseeing and evaluating the performance of the external auditors on behalf of the Board of Directors and recommends to the Board of Directors whether PwC should be proposed to the Annual General Meeting for reelection. Criteria applied for the performance assessment of PwC include technical and operational competence, independent and objective view, employment of sufficient resources, focus on areas of significant risk to Clariant, ability to provide effective and practical recommendations, and open and effective communication and coordination with the Audit Committee, Corporate Auditing, and management. In 2019, six joint meetings were held with the external auditor's representatives. These meetings were attended by members of the Audit Committee, the partner and senior manager of the audit firm, Clariant's CFO, the Head of Corporate Accounting, the Head of Corporate Auditing, the General Counsel, and partly the Group Compliance Officer. Depending on the topics to be discussed, the meetings were also attended by the Group Risk Manager. The auditors communicate audit plans and findings to the Audit Committee and issue reports to the Board of Directors in accordance with Article 728b of the Swiss Code of Obligations. The Audit Committee's approval is required for all services provided by PwC exceeding a fee volume of CHF 25 000. These services may include audit and audit-related services as well as tax and other services. PwC and the Executive Committee report to the Audit Committee on a regular basis regarding the extent of services provided in connection with this approval.

14. Enterprise risk management (ERM)

In the framework of the Enterprise Risk Management Policy, risk assessments are prepared by Business Units, Service Units, Corporate Functions, and Regions to assess threats that will impact the achievement of the objectives set for Clariant overall. These objectives are a result of the overall strategy of the Group as set by the Board of Directors and implemented by the Executive Committee. The Executive Committee is responsible for monitoring the risk assessments for relevance and consistency. The Executive Committee has formed an »Ethics and Risk Management« subcommittee, which maintains an up-to-date understanding of areas where Clariant is, or may be, exposed to risk issues and seeks to ensure that management is effectively addressing those issues. The Ethics and Risk Management Committee meets on a quarterly basis.

The short- and long-term objectives are set in the fourth quarter of the year. These objectives and threats are subject to scrutiny by the Executive Committee during meetings with each Business Unit. Also reviewed and discussed are proposed measures to reduce or contain threats. In that context, responsibilities are assigned. All stakeholders are required to report significant changes to existing identified risks and new threats as they arise.

Risk registers are maintained using financial and reputational impact and probability assessments to score and rank all identified risks. The assessment also addresses the measures in place to manage the risk identified and sets dates for completion of the measures.

When threats have been identified and quantified, they are delegated to qualified individuals who are required to deliver effective risk management. Depending on the nature of the risk identified, specific skill sets may be required for the management of those particular risks.

A summary risk assessment is submitted annually to the Executive Committee, the Audit Committee, and the Board of Directors for review. In the case of new or changed risks, reporting is accelerated.

To support functional responsibility, certain functions have access to risk assessments to assist them in their roles. Examples of such functions are Environmental Safety & Health Affairs (ESHA) to identify key sites for their property risk survey program or Group Procurement to ensure reliable and compliant supply of raw materials.

Examples of identified risks included in the risk register:

Regulation and compliance: Clariant is subject to many rules and regulations as well as compliance standards. These include chemical industry, country, government, and customer requirements as well as the European Union's (EU) Regulations on Registration, Evaluation, Authorization, and Restriction of Chemicals (REACH) or similar regulations in other countries. The function Global Product Stewardship is responsible for ensuring that all relevant legal requirements are met. Certain specific matters are delegated to other functions.

Sites and locations: This includes manufacturing plants and equipment important for the production of Clariant products for sale to customers. Also addressed are country and culture issues that could create threats to and opportunities for business objectives. The aim is to maintain high-quality and safe production facilities. ESHA and Regional Services are responsible for the management of the associated risks.

Examples of **emerging risks** included in the risk register:

Economic development: The achievement of corporate targets depends on economic development, which is continuously monitored in all markets. Economic uncertainty has increased and the growth of the global economy could be lower than expected due to the pandemic and supply chain disruptions. Clariant is responding to the adverse economic environment with various performance programs addressing both cost and revenues.

Sustainability transformation: Demand for sustainable products is clearly increasing, which opens business opportunities. Nonavailability of sustainable offerings represents a market disadvantage. Clariant is responding with the new organizational unit Group Innovation & Sustainability, which combines various resources to accelerate the sustainability transformation.

Digital interconnection: Successful performance of the Clariant Group depends on properly working information systems. Cyberattacks may result in the loss of business and personal data, knowledge, facilities, or money, leading to interruptions in manufacturing and product deliveries. Such attacks might cause significant economic damages as well as loss of trust. Clariant is responding to the increased cyber risk with a reinforced security operations center, state-of-the-art software, and frequent awareness campaigns.

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CLARIANT

Compensation Report **2020**

what is precious to you?

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Compensation Report

Clariant's compensation policy is aimed to support the ambition of Clariant to be an employer of choice and strives to attract, motivate, and retain committed employees.

The purpose of this Compensation Report is to provide a comprehensive overview of Clariant's compensation concept and programs. In addition, it includes the compensation levels of the Board of Directors and the Executive Committee (EC); accordingly, some information given in Note 14, pages 80 to 81, of the Financial Report 2020 is repeated here.

1. Members and responsibilities of the Compensation Committee of the Board of Directors

During the 2020 reporting year, the Compensation Committee (CoC) comprised five non-executive Board members until June: Eveline Saupper (Chairwoman), Abdullah Mohammed Alissa, Carlo G. Soave, Claudia Suessmuth Dyckerhoff and Susanne Wamsler. Carlo Soave's Board of Directors membership ended in June 2020. Since July 2020, the Compensation Committee comprised four non-executive Board members. The Chairman of the Board is a regular guest in the Compensation Committee.

The Corporate Secretary acts as Secretary to the CoC. The Head of Corporate Human Resources (HR) is a regular guest to share information and consult on relevant topics. The Chairwoman of the CoC may invite the CEO to discussions on individual agenda items for consultation, taking into account potential conflicts of interest that would oblige the CEO to abstain.

The roles and responsibilities of the CoC are defined in paragraph 3.2.2 of the Bylaws of the Board of Directors of Clariant from 23 July 2019 (www.clariant.com/en/company/Corporate-Governance/Articles-of-Association) in combination with paragraphs 3 and 5 of the Compensation Committee Charter from 1 April 2019 (www.clariant.com/en/Company/Corporate-Governance/Committees):

The CoC reviews and proposes – subject to the approval of the total compensation by the General Meeting – the individual compensation for Board members, the CEO, and members of the EC to the Board of Directors for approval. It approves employment contracts, including agreements governing departures and termination with the CEO and members of the EC. The CoC takes note of appointments of Heads of Global Business Units, Heads of Global Service Units, and Heads of Regions and regularly reviews and approves their compensation. Furthermore, upon proposal by the CEO, the CoC reviews and approves any early retirement agreement for the members of the EC, the Heads of Global Business Units, and Heads of Global Service Units.

The CoC reviews compensation market data and competitor benchmark data to ensure Clariant's competitiveness to attract and retain key people needed to ensure long-term success of the business. It reviews and approves general global compensation and benefits policies, including Short-Term and Long-Term Incentive Plans, and defines the overall Group targets on which they depend, as well as the attainment levels of these targets (upon proposal by the CEO/Chairman). Additionally, the CoC defines guidelines for determining compensation of members of the Management Committees of Business Units and Service Units.

Finally, the CoC prepares the Compensation Report for the Board of Directors and reviews any other mandatory public disclosure statements on compensation and benefits.

The CoC shall meet at least twice a year; however, it is regular practice to hold three meetings:
a) February: Determination of bonus payments for members of the EC, determination of BoD and EC budgets for the forthcoming (mandate) year; determination of the Short-Term Incentive (STI) and Long-Term Incentive (LTI) targets
b) June: Fundamental matters concerning the Group's Human Resources priorities
c) December: Preparation of the Compensation Report, planning of compensation changes in the following year; approval of the EC compensation for the following year

The CoC also meets as needed. In 2020, the CoC met four times and held several telephone conferences.

2. Compensation concept

To support the attraction, motivation, and retention of qualified and committed employees throughout the organization, Clariant's remuneration policy is based on the following main principles:

— Alignment with Business Strategy: Remuneration components are designed to support the execution of Clariant's Business Strategy.
— Competitiveness: Clariant conducts regular benchmarking studies to ensure compensation levels are in line with market practices.
— Compliance: Clariant's compensation practices always follow local regulations such as laws and collective union agreements.
— Internal Fairness: The compensation policy and practices ensure consistency and a fair treatment of employees working for Clariant.
— Performance-based Pay: Clariant's remuneration components incentivize business and individual performance.
— Transparency: Remuneration components are made transparent to the individual and the organization.

In order to uphold these principles, the CoC analyzes and discusses market developments at regular intervals and considers the implications of these developments for Clariant. The Articles of Association (Art. 26 ss; www.clariant.com/en/Company/Corporate-Governance/Articles-of-Association) of Clariant Ltd therefore reflect Clariant's commitment to market practice.

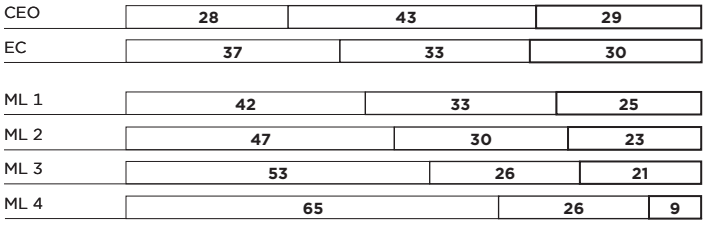
3. COVID-19 mitigation measures

Clariant introduced several measures throughout the unprecedented times in 2020 to reduce costs where growth will be more limited due to COVID-19. Those measures included reduction of overtime, usage of time accounts and vacation time as well as the cancellation of the merit increase for the 2020 salary review, unless mandatory.

4. Remuneration structure for management

The structure of total remuneration should be highly performance- and success-oriented to ensure that shareholder and management interests are aligned. As part of Clariant's remuneration philosophy, performance-based Short-Term and Long-Term Incentives in relation to total compensation increase with increasing responsibility/management level (see exhibit Global Pay Mix → **FIGURE 001**). While Long-Term and Short-Term Incentives are based on Group Performance Indicators only (details are disclosed in chapter 5, beginning on page 4), individual performance – measured through a consistent, global Performance Management System – is a determining factor in career development and the annual salary review process. Within the Global Performance Management System, each manager's or employee's performance is assessed and discussed on a yearly basis. Clariant has practiced a calibration process of individual performance ratings for all management levels since 2017. In 2020, Clariant rolled out the Calibration Session process to Clariant levels below management levels and covered over 80 % of the participating population. In conjunction with other factors, such as internal and external market conditions, this results in transparency and consistent salary decisions. In general, Clariant applies a four-eyes principle, which includes the involvement of the line manager and next-level supervisor, in addition to obtaining guidance from global or local Human Resources professionals.

001 **GLOBAL PAY MIX (RELATIVE STRUCTURE)** in % of total compensation



☐ Base Salary ☐ Short-Term Incentives (STI) ☐ Long-Term Incentives (LTI)
ML: Management Level

The total compensation for the CEO and the EC members was reviewed during the year 2020. This led to the decision to reduce the overall compensation for the 2020 EC members as well as amend the pay-mix structure focusing on STI and LTI effective in 2021.

5. Overview of existing Incentive Plans

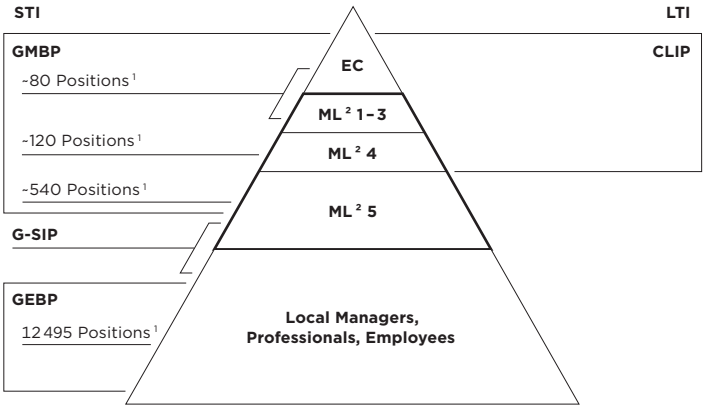
The key principles for Clariant's Short-Term Incentives (STI) and Long-Term Incentives (LTI) are to reduce complexity, increase transparency, and ensure a coordinated and unified »One Clariant« approach throughout all employee groups and countries. Therefore, success, in terms of bonus payouts, will generally be measured only based on relevant financial Group Performance Indicators. Only if Clariant is successful, profits can be shared with employees.

The following variable compensation programs are currently in place for Clariant:

STI: Short-Term Incentive Plans (cash bonus)
a) Group Management Bonus Plan (GMBP) – started in 2010
b) Group Employee Bonus Plan (GEBP) – started in 2010/2011
c) Global Sales Incentive Plan (G-SIP) – started in 2011

LTI: Long-Term Incentive Plans (equity-linked incentives)
a) Performance Share Unit (PSU) Plan – started in 2013, last grant in 2018
b) Group Senior Management – Long-Term Incentive Plan (GSM-LTIP or Matching Share Plan) – started in 2010, last grant in 2018 (for 2017)
c) Clariant Long-Term Incentive Plan (CLIP) – started in 2019
d) Restricted shares for the Board of Directors – started in 2012

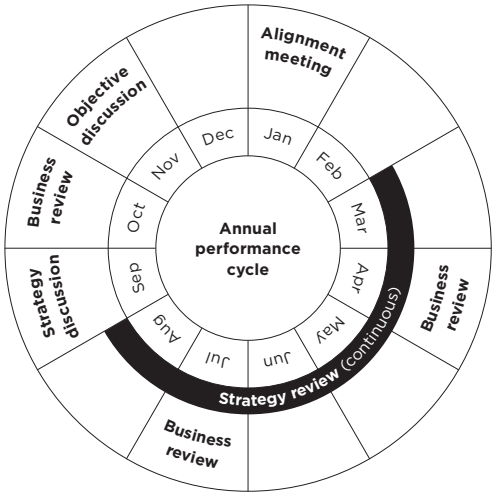
002 **CLARIANT INCENTIVE SCHEME LANDSCAPE**



1 Number of positions as of 31 December 2020
2 ML: Management Level

The **Performance Cycle of Clariant** is based on a 12-month rotation, which starts in November each year with objective discussions focusing on the next business year. Group Performance Indicators (GPI), top priorities, and related projects are included. In January, alignment meetings take place with key leaders of the company in order to cascade GPI objectives and priorities for the new year.

003 **ANNUAL PERFORMANCE CYCLE**



5.1. Short-Term Incentive Plans (cash bonus)

a) The **Group Management Bonus Plan (GMBP)** is anchored in the overall Performance Cycle at Clariant. Through intensive discussions and systematic alignment meetings, this cycle ensures a challenging business-specific target agreement for each Business Unit (BU) and Service Unit (SU).

The individual amount of bonus payments generated in a year is determined by the achieved result of the Clariant Group measured against defined objectives. The achievement is calculated by means of three elements: financial result of the Group, financial results of the BUs or SUs, and defined top priorities (Group Performance Indicators and strategic projects). → **FIGURE 004**

As Clariant Performance Cycle agreements with each BU lead to challenging business-specific target settings, the maximum bonus payout is explicitly capped at 100 % (= target). The target settings for 2020 were defined in the fourth quarter of 2019. As outlined in the remuneration structure (see paragraph 3), Clariant offers a higher variable compensation compared to the market benchmark; thus, this 100-percent approach ensures overall competitive positioning compared with other companies.

The annual evaluation of the achievement of objectives and allocation of funds for the GMBP is conducted by the CoC in February, following the respective financial year, and approved by the Board of Directors. This system ensures that the bonus payments granted to employees are closely aligned with the Group's overall results.

004 **GROUP MANAGEMENT BONUS PLAN (GMBP) 2020**

	Corporate	Discontinued Operations [1]	Continuing Operations [2]	Services
Performance indicators and weighting				
Group Achievement	**50 %**	**10 %**	**10 %**	**10 %**
	ROIC 25 % Operating Cash Flow 25 %	ROIC 5 % Operating Cash Flow 5 %	ROIC 5 % Operating Cash Flow 5 %	ROIC 5 % Operating Cash Flow 5 %
Financial Achievement BU/Services	**30 %**	**70 %**	**70 %**	**70 %**
	Cont. BU's average achievements (EBITDA, BU CF, LC Growth)	EBITDA 10 % BU Cash Flow 50 % LC Growth 10 %	EBITDA 20 % BU Cash Flow 30 % LC Growth 20 %	Service Unit Costs 35 % Cont. BU's average achievements 35 % (EBITDA, BU CF, LC Growth)
Top Priorities	**20 %**	**20 %**	**20 %**	**20 %**
	Productivity Inventory Target CLNX Benefits Innovation Sales & COMA% LTAR/DART	Productivity Inventory Target CLNX Benefits LTAR/DART	Productivity Inventory Target CLNX Benefits Innovation Sales & COMA% LTAR/DART	Productivity Inventory Target CLNX Benefits Innovation Sales & COMA% LTAR/DART
Achievements				
Group Achievement				**86 %**
Financial Achievement BU/Services				**62 – 96 %**
Top Priorities				**75 – 100 %**
Bonus payout [3]				**58.9 – 91.9 % (EC: 75.6 %)**

[1] Discontinued operations is BU Pigments.

[2] Continuing operations are BUs Industrial & Consumer Specialties, Catalysts, Additives, Functional Minerals, and Oil and Mining Services.

[3] The payout ratios have been negatively affected by the impact of COVID-19 on the 2020 financial results despite strong mitigation programs

Legend: BU = Business Unit ; CLNX = Clariant Excellence; COMA = Contribution Margin; DART = Days Away from work, job Restriction or job Transfer; EBITDA = Earnings Before Interest, Taxes, Deprecation, and Amortization; LC = Local Currency; LTAR = Lost-time Accident Rate; Productivity = Personnel cost/sales; ROIC = Return on Invested Capital

GMBP – Key Changes 2020

Corporate: The overall weight of the Group achievements (ROIC aei and Operating Cash Flow) was reduced from 80 % to 50 %. The financial achievements of the Continuing Business Units were added and will amount to 30 %.
Services: The overall weight of the Service Unit Costs was reduced from 70 % to 35 % and one additional KPI, financial achievements of the Continuing Business Units, was added and counts for 35 %.
Top Priorities: The quarterly inventory targets for the Continuing Operations and OTIF (On-Time and In-Full deliveries) for the Discontinued Operations were replaced by Productivity.

For GMBP 2021, a new **Sustainability KPI** will be introduced, replacing Productivity for all Continuing Business, Corporate and Service Units.

b) Cash bonus for non-management levels: The **Group Employee Bonus Plan (GEBP)** represents a globally aligned and standardized bonus plan for all legal entities around the world. In general (where legally compliant and possible), all legal entities will apply the global Group Achievement or a combination of Group Achievement and local Top Priorities as the bonus payout. The maximum bonus payout is capped at 100 % (= target). Some countries in Asia and Latin America reward part of the GEBP for blue-collar employees in the form of a local productivity scheme to improve site/plant performance. Since 2017, employees in the Clariant Shared Service Centers in Poland and India have received 50 % of their GEBP in the form of a »Global Business Services – Shared Service Center Bonus Plan (GBS-SSC)« to offer a competitive incentive focused on quality and productivity.

c) Cash bonus for the sales force: The **Global Sales Incentive Plan (G-SIP)** aims to incentivize premier sales performance and growth by focusing on the individual sales performance and underlying Key Performance Indicators in the areas of sales, margin, and trade receivables. Each objective is weighted and can be monitored using existing reporting systems. Thus, the direct impact of individual success on payout can be easily tracked. In 2011, the global rollout started, and in 2020, approximately 870 employees were included worldwide. Employees can participate only in one global bonus plan (G-SIP or GMBP/GEBP).

5.2. Long-Term Incentive Plans (equity-linked incentive)

Clariant offers equity-based compensation for approximately 200 senior managers worldwide (EC and ML 1 – 4).

a) The Performance Share Unit (PSU) Plan was introduced in 2013 and was last granted in 2018. Its key objective was a strong commitment to higher profitability for Clariant and therefore the achievement of strategic targets. The PSU Plan will expire in 2021 and has been replaced by the CLIP (see below).

Clariant's Performance Share Unit Plan has a three-year vesting period. The vesting is conditional upon achievement of the performance target (checked after three years). The relevant underlying Key Performance Indicator is EBITDA (before exceptional items) in percentage of sales, and the performance target is to be at or above the median of a defined peer group. If vesting and performance targets are achieved, one PSU will be converted to one Clariant share. For PSUs granted in 2017, the performance criteria were checked in summer 2020. The comparison with the peer group revealed that Clariant missed the relevant performance hurdle (the median of the group); therefore the PSUs for all participants were forfeited in September 2020.

PSU participation was limited to the Executive Committee and selected senior managers of ML 1 – 4 (approximately 1.4 % of employees). Eligible participants received a fixed number of PSUs in accordance with an underlying share price defined over a 10-day trading period.

If an employee should voluntarily leave Clariant before the vesting period (three years) expires, all rights to shares that have not yet been transferred at that point in time become invalid. In the event of retirement, disability, or death of the participant, the employee (or the estate and/or heirs of the participant in the event of death) will receive an immediate vesting on a pro-rata basis in accordance with published regulations. The vested PSUs remain subject to the performance condition and will be allocated only at the end of the vesting period.

In the event that a participant has substantially contributed to a financial loss, issues resulting in restatement of financial results, reputational damage, or substantial breach of legal or regulatory requirements, including internal policies, the Board of Directors can decide to cancel any outstanding PSUs.

b) Group Senior Management – Long-Term Incentive Plan (GSM-LTIP) = Matching Share Plan

The Matching Share Plan was started in 2010 and granted for the last time in 2018 for the annual year 2017. It required a personal investment in Clariant shares and fostered the commitment of key managers (EC and ML 1 – 3) to the long-term success of Clariant. Under this plan, senior managers had to invest 20 % of their annual cash bonus (GMBP) in Clariant shares (= investment shares). Thus, this plan supported senior managers in meeting their requirement to permanently hold a minimum of 20 000 and up to 100 000 shares, depending on their management level. New participants had six years to fulfill the required investment thresholds.

The investment shares are blocked and held in a custody account for a period of three years. At the end of the blocking period, the participant is entitled to obtain for each investment share an additional share free of charge (= matching share). This matching is subject to the condition of continued employment with Clariant throughout the blocking period. In the event of termination of employment before the end of the blocking period, the right to receive Matching Shares lapses. In the event of retirement, disability, or death, a cash amount will be paid instead, equal to the pro rata temporis portion (considering employment during the blocking period).

The senior managers who did not participate in this plan, or did not invest according to the plan regulations, would have their target cash bonus (GMBP) decreased by 50 % and would forfeit the eligibility to participate in any Long-Term Incentive Programs (including the PSU Plan) for the following bonus year.

c) Clariant Long-Term Incentive Plan (CLIP)

In 2018, the Compensation Committee had decided to amend the Long-Term Incentive Plans for senior management starting in 2019 to better reflect Clariant's strategic targets and to ensure a competitive remuneration package to senior managers reflecting market best practices. Based on intensive benchmarking, the new plan was designed. This revised Long-Term Incentive Plan aims to provide a closer alignment of underlying Key Performance Indicators with the shareholder perspective and to represent an attractive and competitive incentive for senior management.

The CLIP was granted for the second time in April 2020. Participation in the CLIP is limited to the Executive Committee and senior managers of ML 1 – 4 (approximately 1.4 % of employees).

The CLIP represents an equity-based award in the form of Performance Share Units with a three-year vesting period. The CLIP grant per individual is defined as a fixed percentage of the annual base salary for management levels ML 1 – 4 and as a fixed amount for EC members → FIGURE 001. Relative Total Shareholder Return (rTSR) and Economic Profit have been selected as underlying Key Performance Indicators. The number of PSUs is determined by dividing the individual grant value by the Fair Market Value of a PSU at the grant date. In accordance with the Accounting Standards Codification, the Monte Carlo valuation methodology is applied to determine the grant date Fair Market Value to measure the performance of the rTSR component. To calculate the Economic Profit component, the market value of Clariant shares at the grant date is adjusted by the present value of future dividends. The vesting is conditional upon achievement of defined performance targets. Vesting will only occur if at least a threshold performance level as defined by the Board of Directors has been achieved. Vesting can take place at any level between 0 % and 100 % of the granted PSU volume. The Key Performance Indicators will be measured independently.

At vesting, each PSU will be converted into one Clariant share. At vesting, the number of PSUs that vest for a participant is calculated by multiplying the number of the granted PSUs with the Overall Vesting Factor, rounded up to the next whole share.

Should an employee voluntarily leave Clariant before the vesting period (three years) expires, all rights to shares that have not yet been transferred at that point in time become invalid. In the event of retirement, the unvested PSUs will be pro-rated and remain subject to the performance condition. The PSUs will be allocated to the participants only at the end of the vesting period. In the event of disability or death of the participant, the employee (or the estate and/or heirs of the participant in the event of death) will receive an immediate vesting on a pro-rata basis. The vested PSUs will be released from the performance condition and will be settled in cash.

In the event that a participant has substantially contributed to a financial loss, issues resulting in restatement of financial results, reputational damage, or substantial breach of legal or regulatory requirements, including internal policies, the Board of Directors can decide to cancel any outstanding PSUs.

Participation in CLIP is tied to share ownership targets that have to be achieved within 5 years:

— CEO: 150 000 shares
— EC: 80 000 shares
— ML 1 – 4: up to 30 000 shares depending on management level

d) Restricted shares for the Board of Directors

The share plan, introduced in 2012, allocates shares of Clariant Ltd to members of the Board of Directors. Board members will receive a fixed portion of the annual fee allocated in the form of shares subject to a blocking period (»Restricted Shares«). The blocking period is three years from the date they are allocated. From the first business day after the blocking period, the Board member may freely dispose of and trade these shares without any further restrictions (legal restrictions will remain applicable). The allocation is made once a year, at the end of the mandate year, four weeks prior to the Annual General Meeting (AGM).

The value of a grant is determined by the role and responsibility (see paragraph 6).

6. Structure of compensation for members of the Board of Directors

The compensation structure for members of the Board of Directors follows the compensation concept outlined in the Articles of Association (www.clariant.com/en/Company/Corporate-Governance/Articles-of-Association) of Clariant Ltd from 1 April 2019.

According to Art. 26, remuneration of members of the Board of Directors consists of the following components:
a) Annual basic fee (Honorarium)
b) Committee membership fees
c) Share-based remuneration

The following graphs illustrate the relative structure and absolute value of the three components for 2020.

ANNUAL COMPENSATION OF THE BOARD OF DIRECTORS (STRUCTURAL OVERVIEW ONLY) in CHF

	Chairman of the Board	Vice-Chairman of the Board	Member of the Board of Directors	**Total 2020**	Total 2019
Cash compensation					
Honorarium [1]	450 000	180 000	150 000	**2 130 000**	2 130 000
Committee fee [1]	According to individual activity (see table below)			**430 000**	530 000
Social contribution					
Relevant amount	According to individual situation [2]				
Shares					
Value (at grant) [3]	300 000	120 000	100 000	**1 420 000**	1 420 000

[1] The Honorarium and fees are paid in cash in equal parts in March and September.
[2] For actual details for 2020, see table on page 9.
[3] Shares will be granted at the end of the mandate year.

The Chairman of the Board is not entitled to receive committee fees when serving as a member of a committee.

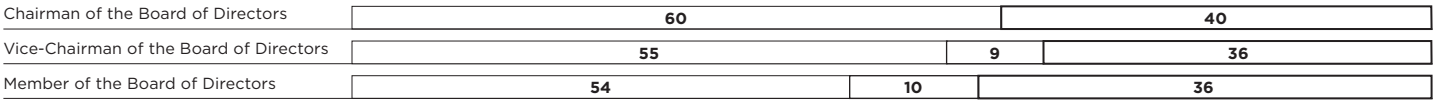
All Board of Directors members are asked to build up defined minimum shareholding requirements within three years from becoming a member of the Board.

The shareholder requirements are:
— Chairman of the Board of Directors: 30 000 shares
— Vice-Chairman of the Board of Directors: 15 000 shares
— Members of the Board of Directors: 12 000 shares

COMMITTEE FEES IN CHF per mandate year

	Chair	Member
Nomination Committee	50 000	30 000
Audit Committee	80 000	40 000
Compensation Committee	50 000	30 000

005 **RELATIVE STRUCTURE OF ACTUAL TOTAL COMPENSATION 2020 (BOARD OF DIRECTORS)** in %



☐ Honorarium ☐ Committee fee: Activity-based (assumption for members is minimum = CHF 30 000) ☐ Shares (value at grant)

In order to fulfill the reporting needs outlined in the Ordinance against Excessive Compensation (OaEC), the relevant Fair Market Value (FMV) figures as earned by the Board of Directors members for the calendar year are disclosed in the following audited table.

2020 ANNUAL COMPENSATION – EMOLUMENTS TO MEMBERS OF THE BOARD OF DIRECTORS (FAIR MARKET VALUE = FMV) in CHF

	Hariolf Kottmann	Dr. Khaled Homza A. Nahas [1]	Abdullah Mohammed Alissa [2]	Günter von Au	Calum MacLean	Geoffery Merszei	Eveline Saupper	Carlo G. Soave [3]	Peter Steiner	Claudia Suessmuth Dyckerhoff	Susanne Wamsler	Konstantin Winterstein	Nader Alwehibi [4]	Thilo Mannhardt [4]	**Totals 2020**
Cash compensation															
Honorarium	450 000	90 000	172 500	150 000	150 000	150 000	150 000	75 000	150 000	150 000	150 000	150 000	75 000	75 000	**2 137 500**
Additional compensation	0	0	0	0	0	0	134 482 [5]	0	0	0	0	0	0	0	**134 482**
Committee fee	0	15 000	30 000	32 500 [6]	30 000	40 000	90 000	30 000	110 000	30 000	30 000	40 000	0	0	**477 500**
Social contribution															
Relevant amount	49 537	18 513	20 739	16 682	33 445	17 013	35 110	30 114 [7]	0	19 672	19 672	0	2 894	30 208 [8]	**293 599**
Shares															
Fair market value (FMV)	300 000	60 000 [9]	115 000	100 000	100 000	100 000	100 000	50 000 [9]	100 000	100 000	100 000	100 000	50 000	50 000	**1 425 000**
Total 2020 (Fair market value 2020)	**799 537**	**183 513**	**338 239**	**299 182**	**313 445**	**307 013**	**509 592**	**185 114**	**360 000**	**299 672**	**299 672**	**290 000**	**127 894**	**155 208**	**4 468 081**

[1] Six months Deputy Chairman (exit end of June 2020)
[2] Three months BoD Member and nine months BoD Deputy Chairman
[3] Six months BoD Member (exit end of June 2020)
[4] Six months BoD Member (new joiner in July 2020)
[5] Extra compensation for temporary additional role as independent Lead Director since 24 July 2019
[6] Different Committee Fees for first three months vs last nine months
[7] Including additional compensation for project work
[8] Tax gross up due to inexistent tax agreement between countries
[9] Three months paid in cash

2019 ANNUAL COMPENSATION – EMOLUMENTS TO MEMBERS OF THE BOARD OF DIRECTORS (FAIR MARKET VALUE = FMV) in CHF

	Hariolf Kottmann	Dr. Khaled Homza A. Nahas	Abdullah Mohammed Alissa	Günter von Au	Calum MacLean	Geoffery Merszei	Eveline Saupper	Carlo G. Soave	Peter Steiner	Claudia Suessmuth Dyckerhoff	Susanne Wamsler	Konstantin Winterstein			**Totals 2019**
Cash compensation															
Honorarium	450 000	180 000	150 000	150 000	150 000	150 000	150 000	150 000	150 000	150 000	150 000	150 000			**2 130 000**
Additional compensation	0	0	0	0	0	0	79 138 [1]	0	0	0	0	0			**79 138**
Committee fee	0	30 000	30 000	40 000	30 000	40 000	90 000	60 000	110 000	30 000	30 000	40 000			**530 000**
Social contribution															
Relevant amount	38 806	15 027	15 685	19 023	28 774	13 275	25 806	27 417 [2]	0	19 173	19 699	0			**222 685**
Shares															
Fair market value (FMV) [3]	300 023	120 009	100 023	100 023	100 023	100 023	100 023	100 023	100 023	100 023	100 023	100 023			**1 420 262**
Total 2019 (Fair market value 2019)	**788 829**	**345 036**	**295 708**	**309 046**	**308 797**	**303 298**	**444 967**	**337 440**	**360 023**	**299 196**	**299 722**	**290 023**			**4 382 085**

[1] Extra compensation for temporary additional role as independent Lead Director since 24 July 2019
[2] Including additional compensation for project work
[3] Correction needed due to adjustment of final share price at grant

In both years, there were no payments to former members of the Board of Directors after the mandate year, nor were any loans or credits outstanding and/or granted.

The information about the actual share ownership of the Board of Directors is displayed in the next table.

SHARES HELD BY MEMBERS OF THE BOARD OF DIRECTORS

	Number of shares granted for 2020 [1]	Number of shares granted for 2019 [2]	Number of privately held shares at 31 Dec. 2020	Number of privately held shares at 31 Dec. 2019
Hariolf Kottmann	16667	13090 (correction of 13953)	449573 [3]	430750
Dr. Khaled Homza A. Nahas	0	5236 (correction of 5581)	n.a.	2594
Abdullah Mohammed Alissa	6667	4364 (correction of 4651)	6525	2161
Nader Alwehibi	4167	0	0	n.a.
Günter von Au	5556	4364 (correction of 4651)	68863	64499
Calum MacLean	5556	4364 (correction of 4651)	6525	2161
Thilo Mannhardt	4167	0	0	n.a.
Geoffery Merszei	5556	4364 (correction of 4651)	6525	2161
Eveline Saupper	5556	4364 (correction of 4651)	24388	20024
Carlo G. Soave	0	4364 (correction of 4651)	n.a.	40778
Peter Steiner	5556	4364 (correction of 4651)	18388	14024
Claudia Suessmuth Dyckerhoff	5556	4364 (correction of 4651)	19488	15124
Susanne Wamsler	5556	4364 (correction of 4651)	1185180 [4]	1175286 [4]
Konstantin Winterstein	5556	4364 (correction of 4651)	6086903	6082539
Total	**76116**	**61966 (correction of 66044)**	**7872358**	**7852101**

[1] Final number of shares for the mandate year will be defined prior to grant in 2021. Underlying assumption here is a share price of CHF 18.00.

[2] Correction needed due to adjustments of final share price at grant: Underlying assumption was CHF 21.50. Final allocation of shares with CHF 22.92; therefore, the numbers of shares differ from the overview in the Integrated Report 2019.

[3] Additionally 542 shares in vesting on 31 December 2020 resulting from previous years' participation in LTI plans as CEO

[4] Thereof 240271 held by the »Honoré T. Wamsler Trust«

The compensation for members of the Board of Directors is subject to taxation and social security, depending on the individual's situation with Clariant paying the employer contributions as required. The members of the Board of Directors do not receive any lump-sum reimbursement of entertainment expenses above and beyond actual expenditure on business trips.

7. Compensation of members of the Executive Committee

The EC participates in the same compensation elements as Clariant's senior managers. Accordingly, they receive a fixed annual base salary, an annual cash bonus (GMBP), and Long-Term Incentives (CLIP) as stated in Art. 27 of the Articles of Association. The annual bonus is based on achieved results for the particular financial year, and payout is capped at 100 % of the target value. For details of the respective plans, please refer to sections 5.1.a and 5.2.c of this Compensation Report. According to Clariant's Articles of Association, the annual bonus payout and any single share grant must each not exceed 200 % of base salary for the CEO and 150 % for EC members (Art. 32; www.clariant.com/en/Company/Corporate-Governance/Articles-of-Association).

The Compensation Committee decides on the amendment or discontinuation of the annual bonus plan and Long-Term Incentive Plans for the Executive Committee (Art. 33 – 35).

The CEO and members of the EC participate in the pension plans of the Clariant Group in Switzerland, notably the Clariant pension fund with an insured income of up to CHF 200000 per annum and the management pension fund with an insured income of up to an additional CHF 653200 per annum. The maximum insured income under the pension plans therefore stands at CHF 853200 per annum.

Clariant's pension plans comply with the legal framework of the Swiss occupational pension scheme (BVG), and the maximum contribution will be dynamically aligned in accordance with Art. 79c BVG. For members of the EC and all other Clariant employees, the insured income is defined as the base salary plus 50 % of the target cash bonus. Equity-linked income components are not subject to pensionable income. Usual policies for death and disability are part of Clariant's pension plans. The total employer contribution is approximately 11 % of the insured income in the case of the Clariant pension fund and 22 % of the insured income in the case of the Clariant management pension fund. These contributions cover both the contributions to the formation of retirement capital and the risk components. Under IFRS, the Clariant pension fund is a defined benefit plan. The management pension fund provides the members with retirement capital upon retirement. Pension payments are only accepted in exceptional cases.

REMUNERATION STRUCTURE OF THE CLARIANT EXECUTIVE COMMITTEE[1] in CHF

	CEO Compensation			EC Compensation		
	2020[2]		2019	**2020**		2019
		as % of base salary			as % of base salary	
Total annual target	**4 200 000**		**4 200 000**	**2 450 000**		**2 450 000**
Long-Term Incentives[3]	1 200 000	100	1 200 000	750 000	83	750 000
Short-Term Incentives[4]	1 800 000	150	1 800 000	800 000	89	800 000
Base salary	1 200 000	100	1 200 000	900 000	100	900 000

[1] Without other benefits

[2] Hariolf Kottmann was appointed Executive Chairman during 2020. For this assignment, he had no entitlements for the Short-Term Incentives and the Long-Term Incentives.

[3] Annual grant volume; Performance Share Units with 3-year vesting and defined performance hurdle; vesting capped at 100% target achievement

[4] Target cash bonus (GMBP); annual payout capped at target level

The following personnel changes within the Executive Committee occurred in 2020:

Patrick Jany resigned and left Clariant's Executive Committee effective 31 March 2020. Stephan Lynen was appointed member of the EC effective 1 April 2020. Hariolf Kottmann, Chairman of the Board of Directors of Clariant, who assumed his responsibility as Executive Chairman ad interim on 24 July 2019, continued acting as the Executive Chairman ad interim until 31 December 2020.

In accordance with the reporting requirements outlined in the Ordinance against Excessive Compensation (OaEC), the relevant Fair Market Value (FMV) figures are shown in the following audited table.

2020 ANNUAL COMPENSATION TO MEMBERS OF THE EXECUTIVE COMMITTEE (FAIR MARKET VALUE = FMV) in CHF

	Hans Bohnen[1]	Other EC members	**Totals 2020**
Base salary	900 000	3 075 000[2,3]	3 975 000
Cash bonus	604 800	1 259 174[2]	1 863 974
Share-based incentive (FMV)[4]	750 012	1 500 024[2]	2 250 036
Other benefits[5]	300 992	823 655[2,3]	1 124 647
Total	**2 555 804**	**6 657 853**	**9 213 657**

[1] As Hariolf Kottmann acted as Executive Chairman in 2020, he was not entitled to the cash bonus and the share-based incentive and hence was not the highest paid EC member.

[2] Including Bernd Hoegemann and Stephan Lynen; Patrick Jany considered pro rata based on active role as EC member in 2020

[3] Including additional compensation for Hariolf Kottmann as Executive Chairman (total 2020: CHF 1 284 673)

[4] Fair Market Value of a PSU under CLIP 2020 grant: CHF 12.87. The conversion from PSUs into shares is done after a 3-year vesting period depending on the achievement factor.

[5] »Other benefits« include pension contributions (48%), social security contributions (41%), and other benefits (11%); including other benefits for former EC members.

2019 ANNUAL COMPENSATION TO MEMBERS OF THE EXECUTIVE COMMITTEE (FAIR MARKET VALUE = FMV) in CHF

	Patrick Jany[1]	Other EC members	**Totals 2019**
Base salary	900 000	2 694 594[2,3]	3 594 594
Cash bonus	440 000	1 409 607[2]	1 849 607
Share-based incentive (FMV)[4]	750 013	965 655[2]	1 715 668
Other benefits[5]	334 151	920 110[2,3]	1 254 261
Subtotal	**2 424 164**	**5 989 966**	**8 414 130**
Contractual payments to former EC members	n.a.	1 429 765[6]	1 429 765
Total	**2 424 164**	**7 419 731**	**9 843 895**

[1] Due to the resignation of Ernesto Occhiello, the CEO was not the highest paid EC member in 2019.

[2] Including Bernd Hoegemann and Hans Bohnen; Christian Kohlpaintner and Ernesto Occhiello considered pro rata, based on active role as EC members in 2019

[3] Including additional compensation for Hariolf Kottmann as Executive Chairman effective 24 July 2019 (total 2019: CHF 560 111)

[4] Fair Market Value of a PSU under CLIP 2019 grant: CHF 15.91. The conversion from PSUs into shares is done after a 3-year vesting period depending on the achievement factor.

[5] »Other benefits« include pension contributions (50%), social security contributions (33%), and other benefits (17%).

[6] Contractual payments to Ernesto Occhiello and Christian Kohlpaintner, who resigned in 2019

In 2019 and 2020, no loans or credits were outstanding and/or granted to the CEO or EC members. According to Art. 30 of Clariant's Articles of Association (www.clariant.com/en/Company/Corporate-Governance/Articles-of-Association), no loans may be granted to EC members.

The total compensation of the Executive Committee for 2020 amounts to CHF 9.2 million and is within the approved budget of CHF 17.2 million granted for the year 2020 at the Annual General Meeting in 2019.

According to Art. 28 of Clariant's Articles of Association (www.clariant.com/en/Company/Corporate-Governance/Articles-of-Association), an additional amount of 50 % of the respective total remuneration approved by the Annual General Meeting can be spent in the event that new EC members are appointed after the Annual General Meeting. This flexibility was not needed in 2020.

The actual share ownership of the members of the Executive Committee is shown below. No options were held at 31 December 2019/2020.

2020 NUMBERS OF SHARES GRANTED

	Hans Bohnen	Bernd Hoegemann	Stephan Lynen	**Total**
Number of performance share units [1]	58276	58276	58276	**174828**

SHARES HELD BY THE MEMBERS OF THE EXECUTIVE COMMITTEE

	Number of PSUs granted in 2020	Number of PSUs granted in 2019	Number of unvested PSUs/RSUs at 31 Dec. 2020	Number of unvested PSUs/RSUs at 31 Dec. 2019	Number of privately held shares at 31 Dec. 2020	Number of privately held shares at 31 Dec. 2019
Hans Bohnen	58276	47141	112381	62259	124049	100625
Bernd Hoegemann	58276	n.a. [2]	79299	26758	59495	56899
Stephan Lynen	58276	n.a. [3]	78799	n.a.	89595	n.a.
Former EC members	n.a.	68697 [4]	n.a.	94052 [5]	n.a.	417686 [5]
Total	**174828**	**115838**	**270479**	**183069**	**273139**	**575210**

[1] Performance Share Units represent contingency rights that will be converted into shares depending on the performance achievement after the 3-year vesting period.

[2] No grant in 2019; only became EC member in 2019 after grant date

[3] No grant in 2019; only became EC member in 2020

[4] Former members include Patrick Jany for full year and Ernesto Occhiello (CEO) and Christian Kohlpaintner pro-rated due to resignation in 2019.

[5] Former member Patrick Jany with resignation in 2020

Report of the statutory auditor

to the General Meeting of Clariant Ltd

Muttenz

We have audited the Compensation Report of Clariant Ltd for the year ended 31 December 2020. The audit was limited to the information according to articles 14–16 of the Ordinance against Excessive Compensation in Stock Exchange Listed Companies (Ordinance) contained in the tables labelled 'audited' on pages 9 and 11 of the Compensation Report.

Board of Directors' responsibility

The Board of Directors is responsible for the preparation and overall fair presentation of the Compensation Report in accordance with Swiss law and the Ordinance against Excessive Compensation in Stock Exchange Listed Companies (Ordinance). The Board of Directors is also responsible for designing the remuneration system and defining individual remuneration packages.

Auditor's responsibility

Our responsibility is to express an opinion on the accompanying Compensation Report. We conducted our audit in accordance with Swiss Auditing Standards. Those standards require that we comply with ethical requirements and plan and perform the audit to obtain reasonable assurance about whether the Compensation Report complies with Swiss law and articles 14–16 of the Ordinance.

An audit involves performing procedures to obtain audit evidence on the disclosures made in the Compensation Report with regard to compensation, loans and credits in accordance with articles 14–16 of the Ordinance. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatements in the Compensation Report, whether due to fraud or error. This audit also includes evaluating the reasonableness of the methods applied to value components of remuneration, as well as assessing the overall presentation of the Compensation Report.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Opinion

In our opinion, the tables labelled 'audited' on pages 9 and 11 of the Compensation Report of Clariant Ltd for the year ended 31 December 2020 complies with Swiss law and articles 14–16 of the Ordinance.

PricewaterhouseCoopers AG





Rolf Johner

Audit expert
Auditor in charge

Michael Scheibli

Audit expert

Basel, 9 February 2021

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CLARIANT

Financial Report
2020

what is precious to you?

CONSOLIDATED BALANCE SHEETS

at 31 December 2020 and 2019

	Notes[1]	31.12.2020 in CHF m	in %	31.12.2019 in CHF m	in %
Assets					
Non-current assets					
Property, plant and equipment	5	1 628		1 649	
Right-of-use assets	7	204		219	
Intangible assets	6	1 238		1 351	
Investments in associates and joint ventures	8	153		248	
Financial assets	9	202		218	
Prepaid pension assets	20	57		41	
Deferred tax assets	10	160		234	
Total non-current assets		**3 642**	**52.5**	**3 960**	**49.6**
Current assets					
Inventories	11	534		651	
Trade receivables	12	577		680	
Other current assets	13	312		337	
Current income tax receivables		67		104	
Short-term deposits	14	267		304	
Cash and cash equivalents	15	737		638	
Total current assets		**2 494**	**36.0**	**2 714**	**34.0**
Assets held for sale	**25**	**797**	**11.5**	**1 305**	**16.4**
Total assets		**6 933**	**100.0**	**7 979**	**100.0**
Equity and liabilities					
Equity					
Share capital	17	1 228		1 228	
Treasury shares (par value)	17	–9		–10	
Other reserves		–1 100		–431	
Retained earnings		2 123		1 719	
Total capital and reserves attributable to Clariant shareholders		**2 242**		**2 506**	
Non-controlling interests		139		171	
Total equity		**2 381**	**34.3**	**2 677**	**33.6**
Liabilities					
Non-current liabilities					
Financial debts	18	1 424		1 485	
Deferred tax liabilities	10	18		43	
Retirement benefit obligations	20	630		673	
Non-current lease liabilities	7	159		172	
Other liabilities	22	60		68	
Provision for non-current liabilities	21	202		164	
Total non-current liabilities		**2 493**	**36.0**	**2 605**	**32.6**
Current liabilities					
Trade payables and other liabilities	22	817		875	
Financial debts	23	398		587	
Current income tax liabilities		262		238	
Current lease liabilities	7	41		45	
Provision for current liabilities	21	278		393	
Total current liabilities		**1 796**	**25.9**	**2 138**	**26.8**
Liabilities directly associated with assets held for sale	**25**	**263**	**3.8**	**559**	**7.0**
Total liabilities		**4 552**	**65.7**	**5 302**	**66.4**
Total equity and liabilities		**6 933**	**100.0**	**7 979**	**100.0**

[1] The notes form an integral part of the consolidated financial statements.

CONSOLIDATED INCOME STATEMENTS

for the years ended 31 December 2020 and 2019

	Notes[1]	2020 in CHF m	2020 in %	2019 in CHF m	2019 in %
Sales	24	3 860	100.0	4 399	100.0
Costs of goods sold		–2 687		–3 024	
Gross profit		**1 173**	**30.4**	**1 375**	**31.3**
Selling, general and administrative costs		–747		–1 070	
Research and development costs		–170		–173	
Income from associates and joint ventures	24	42		33	
Operating income		**298**	**7.7**	**165**	**3.9**
Finance income	29	15		23	
Finance costs	29	–101		–117	
Income before taxes		**212**	**5.5**	**71**	**1.7**
Taxes	10	–96		–105	
Net result from continuing operations		**116**	**3.0**	**–34**	**–0.7**
Attributable to:					
Shareholders of Clariant Ltd		92		–57	
Non-controlling interests		24		23	
Net result from discontinued operations	**25**	**683**		**72**	
Attributable to:					
Shareholders of Clariant Ltd		666		67	
Non-controlling interests		17		5	
Net income		**799**		**38**	
Attributable to:					
Shareholders of Clariant Ltd		758		10	
Non-controlling interests		41		28	
Basic earnings/loss per share attributable to the shareholders of Clariant Ltd (CHF/share)					
Continuing operations	30	0.28		–0.17	
Discontinued operations	30	2.02		0.20	
Total		**2.30**		**0.03**	
Diluted earnings/loss per share attributable to the shareholders of Clariant Ltd (CHF/share)					
Continuing operations	30	0.28		–0.17	
Discontinued operations	30	2.01		0.20	
Total		**2.29**		**0.03**	

[1] The notes form an integral part of the consolidated financial statements.

CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME

for the years ended 31 December 2020 and 2019

	Notes[1]	**2020** in CHF m	2019 in CHF m
Net income		**799**	**38**
Other comprehensive income/loss:			
Remeasurements:			
Actuarial gain/loss on retirement benefit obligations	20	–38	–316
Return on retirement benefit plan assets, excluding amount included in interest expense	20	124	219
Fair value adjustment on financial assets	9	–10	16
Total items that will not be reclassified subsequently to the income statement, gross		**76**	**–81**
Deferred tax effect	10	–17	35
Total items that will not be reclassified subsequently to the income statement, net		**59**	**–46**
Net investment hedge	31	26	35
Cash flow hedge		–1	–2
Currency translation differences		–275	–120
Share in other comprehensive income of associates and joint ventures	8	1	–9
Effect of the reclassification of foreign exchange differences on previously held net investments in foreign entities		130	19
Total items that may be reclassified subsequently to the income statement, gross		**–119**	**–77**
Deferred tax effect		—	—
Total items that may be reclassified subsequently to the income statement, net		**–119**	**–77**
Other comprehensive income/loss for the period, net of tax		**–60**	**–123**
Total comprehensive income/loss for the period		**739**	**–85**
Attributable to:			
Shareholders of Clariant Ltd		715	–106
Non-controlling interests		24	21
Total comprehensive income/loss for the period		**739**	**–85**
Total comprehensive income/loss attributable to shareholders of Clariant Ltd arising from:			
Continuing operations		–27	–142
Discontinued operations		742	36
Total comprehensive income/loss attributable to shareholders of Clariant Ltd		**715**	**–106**

[1] The notes form an integral part of the consolidated financial statements.

CONSOLIDATED STATEMENTS OF CHANGES IN EQUITY in CHF m

at 31 December 2020 and 2019

	Total share capital	Treasury shares (par value)	Share premium reserves	Hedging reserves	Cumulative translation reserves	Other reserves: Total other reserves	Retained earnings	Total attributable to equity holders	Non-controlling interests	Total equity
Balance 31 December 2018	**1 228**	**–8**	**1 006**	**4**	**–1 199**	**–189**	**1 767**	**2 798**	**172**	**2 970**
Changes in accounting policy [1]						—	1	1		1
Balance 1 January 2019	**1 228**	**–8**	**1 006**	**4**	**–1 199**	**–189**	**1 768**	**2 799**	**172**	**2 971**
Net income						—	10	10	28	38
Cash flow hedge				–2		–2		–2		–2
Net investment hedge					35	35		35		35
Remeasurements:										
Actuarial gain/loss on retirement benefit obligations (see note 20)						—	–316	–316		–316
Return on retirement benefit plan assets, excluding amount included in interest expense (see note 20)						—	219	219		219
Deferred tax on remeasurements (see note 10)						—	37	37		37
Currency translation differences					–113	–113		–113	–7	–120
Fair value adjustment on financial assets						—	14	14		14
Share in other comprehensive income of associates and joint ventures (see note 8)							–9	–9		–9
Effect of the reclassification of foreign exchange differences on previously held net investments in foreign entities					19	19		19		19
Total comprehensive income/loss for the period	**—**	**—**	**—**	**–2**	**–59**	**–61**	**–45**	**–106**	**21**	**–85**
Distributions			–181			–181		–181		–181
Dividends to non-controlling interests						—		—	–20	–20
Transaction with non-controlling interests						—	1	1	–2	–1
Employee share scheme:										
Effect of employee services						—	–1	–1		–1
Treasury share transactions		–2				—	–4	–6		–6
Balance 31 December 2019	**1 228**	**–10**	**825**	**2**	**–1 258**	**–431**	**1 719**	**2 506**	**171**	**2 677**
Net income						—	758	758	41	799
Cash flow hedge				–1		–1		–1		–1
Net investment hedge					26	26		26		26
Remeasurements:										
Actuarial gain/loss on retirement benefit obligations (see note 20)						—	–38	–38		–38
Return on retirement benefit plan assets, excluding amount included in interest expense (see note 20)						—	124	124		124
Deferred tax on remeasurements (see note 10)						—	–18	–18		–18
Currency translation differences					–258	–258		–258	–17	–275
Fair value adjustment on financial assets						—	–9	–9		–9
Share in other comprehensive income of associates and joint ventures (see note 8)						—	1	1		1
Effect of the reclassification of foreign exchange differences on previously held net investments in foreign entities					130	130		130		130
Total comprehensive income/loss for the period	**—**	**—**	**—**	**–1**	**–102**	**–103**	**818**	**715**	**24**	**739**
Reclassification to reserves			220			220	–220	—		—
Distributions			–786			–786	–203	–989		–989
Dividends to non-controlling interests						—		—	–42	–42
Effect on disposal									–14	–14
Employee share scheme:										
Effect of employee services						—	6	6		6
Treasury share transactions		1				—	3	4		4
Balance 31 December 2020	**1 228**	**–9**	**259**	**1**	**–1 360**	**–1 100**	**2 123**	**2 242**	**139**	**2 381**

[1] The impact of the changes in accounting policies include CHF 1 million (net of tax) related to the implementation of IFRS 16.

The notes form an integral part of the consolidated financial statements.

CONSOLIDATED STATEMENTS OF CASH FLOWS

for the years ended 31 December 2020 and 2019

	Notes[1]		**2020** in CHF m		2019 in CHF m
Net income			**799**		**38**
Reversal of non-cash income and expenses	16	–277		483	
Dividends received from associates and joint ventures	8	44		42	
Payments for restructuring	28	–25		–29	
Cash flow before changes in net working capital and provisions			**541**		**534**
Changes in net working capital and provisions	16	–57		96	
Cash generated from operating activities			**484**		**630**
Income taxes paid		–115		–121	
Net cash generated from operating activities			**369**		**509**
Cash flows from investing activities:					
Investments in property, plant and equipment	5	–288		–273	
Investments in financial assets, associates and joint ventures		–2		–4	
Investments in intangible assets	6	–11		–16	
Changes in current financial assets and short-term deposits		48		–285	
Sale of property, plant and equipment and intangible assets		22		14	
Business combinations		–9		—	
Proceeds from the disposal of associates and financial assets		5		4	
Proceeds from the disposal of discontinued operations	25	1 305		295	
Proceeds/payments associated to disposals of activities not qualifying as discontinued operations	26	13		11	
Net cash provided by/used in investing activities			**1 083**		**–254**
Cash flows from financing activities:					
Purchase of treasury shares		–1		–10	
Distribution to the shareholders of Clariant Ltd	17	–989		–181	
Dividends paid to non-controlling interests		–42		–20	
Proceeds/payments associated to transactions with non-controlling interests		—		–1	
Proceeds from financial debts		288		268	
Repayments of financial debts		–472		–370	
Repayments of lease liabilities	7	–55		–58	
Interest paid		–60		–79	
Interest paid for leases	7	–11		–12	
Interest received		16		23	
Net cash provided by/used in financing activities			**–1 326**		**–440**
Currency translation effect on cash and cash equivalents			–27		–10
Net change in cash and cash equivalents			**99**		**–195**
Cash and cash equivalents at the beginning of the period	**15**		**638**		**833**
Cash and cash equivalents at the end of the period	**15**		**737**		**638**

[1] The notes form an integral part of the consolidated financial statements.

Notes to the consolidated financial statements

1. Accounting policies

1.01 – General information

Clariant Ltd (the »Company«) and its consolidated subsidiaries (together the »Group«) are a global leader in the field of specialty chemicals. The Group develops, manufactures, distributes and sells a broad range of specialty chemicals which play a key role in its customers' manufacturing and treatment processes or add value to their end products. The Group has manufacturing plants around the world and sells mainly in countries within Europe, the Americas and Asia.

Clariant Ltd is a limited liability company incorporated and domiciled in Switzerland. The address of its registered office is Rothausstrasse 61, CH-4132 Muttenz, Switzerland. The Company is listed on the SIX Swiss Exchange.

The Board of Directors approved the consolidated financial statements for issue on 9 February 2021. They will be subject to approval by the Annual General Meeting of Shareholders scheduled for 7 April 2021.

1.02 – Basis of preparation

The consolidated financial statements of the Clariant Group have been prepared in accordance with the International Financial Reporting Standards (IFRS) and the IFRIC interpretations applicable to companies reporting under IFRS, and with the significant accounting policies set out below.

The consolidated financial statements have been prepared under the historical cost convention as modified by the revaluation of certain financial assets and liabilities (including derivative instruments) at fair value through profit or loss and other comprehensive income.

The preparation of financial statements in conformity with the IFRS requires the use of certain critical accounting estimates. It also requires management to exercise its judgment in the process of aplying the Group's accounting policies.

These estimates and judgments affect the reported amounts of assets and liabilities and the disclosure of contingent assets and liabilities at the date of the financial statements as well as the reported amounts of revenues and expenses during the reporting period.

Although these are based on management's best knowledge of current events and circumstances, actual outcomes may ultimately differ from those estimates. The areas involving a higher degree of judgment or complexity, or areas where estimates are significant to the consolidated financial statements, are disclosed under note 4.

1.03 – Disclosure of Business Units as discontinued operations in accordance with IFRS 5, Non-current Assets held for sale and Discontinued operations

Following the decision of the Board of Directors to dispose the Business Units Masterbatches (including Business Line Healthcare Packaging) and Pigments in June 2019 the two Business Units concerned were reclassified to discontinued operations in 2019 and therefore are presented separately in accordance with IFRS 5. Healthcare Packaging was sold in October 2019 and Masterbatches in July 2020. See also Note 25.

Assets and liabilities pertaining to the discontinued operations are presented as »assets held for sale« and as »liabilities directly associated with assets held for sale« respectively in the balance sheets of 2020 and 2019 as required by IFRS 5.

1.04 – Standards, interpretations and amendments effective in 2020

The Group has applied the following standards and amendments for the first time:

- Definition of Material – amendments to IAS 1 and IAS 8
- Definition of a Business – amendments to IFRS 3
- Interest Rate Benchmark Reform – amendments to IFRS 9, IAS 39 and IFRS 7
- Revised Conceptual Framework for Financial Reporting (revised 2018)

The amendments listed above did not have any impact on the amounts recognized in the reporting period and prior periods and are not expected to significantly affect future periods.

1.05 – Standards, interpretations and amendments not yet effective

Certain new accounting standards and interpretations have been published that are not mandatory for 31 December 2020 reporting periods and have not been early adopted by the group. These standards are not expected to have a material impact on the entity in the current or future reporting periods and on foreseeable future transactions.

1.06 – Scope of consolidation

- **Subsidiaries:** Subsidiaries are those entities over which the Group has control. This is the case when it is exposed to, or has rights to variable returns from its involvement with the entity and has the ability to affect those returns through its power over the entity. Subsidiaries are fully consolidated from the date on which control is transferred to the Group and they are deconsolidated from the date the control ceases.

- **Associates:** Associates are entities over which the Group has significant influence but not control, generally accompanying a shareholding of between 20 % and 50 % of the voting rights. Investments in associates are accounted for using the equity method.

- **Joint arrangements:** The Group applies IFRS 11, Joint Arrangements, to all joint arrangements. Under IFRS 11, investments in joint arrangements are classified as either joint operations or joint ventures depending on the contractual rights and obligations of each investor. Clariant has assessed the nature of its joint arrangements and determined them to be joint ventures. Joint ventures are accounted for using the equity method.

All associates and joint ventures apply the same accounting principles as the Group.

1.07 – Principles and methods of consolidation

The annual closing date of the individual financial statements is 31 December. The consolidated financial statements are prepared applying uniform presentation and valuation principles.
The results of non-controlling interests are separately disclosed in the income statement and in the balance sheet.

1.08 – Recognition of revenue from contracts with customers

Sales of goods and services are recognized in line with the requirements of IFRS 15, Revenue from contracts with customers. Revenue is measured based on the consideration the Group expects to receive in exchange for the goods or services. Revenue from sales of goods is recognized in the income statement when control has been transferred to the buyer, which is usually upon delivery, at a fixed or determinable price, and when collectability is reasonably assured. Delivery is defined based on the terms of the sale contract.
Revenue from services is recognized when the respective services have been rendered.
Revenue is reported net of sales taxes, returns, discounts and rebates. Rebates to customers are provided for in the same period that the related sales are recorded based on the contract terms.

Where third parties hold Clariant inventories on a consignment basis, revenue is recognized in the period that inventories are withdrawn from consignment and delivered to customers. Clariant periodically enters into prepayment contracts with customers whereby it receives contract liabilities for products to be delivered in a future period. These contract liabilities are recorded as liabilities and presented as part of Other liabilities. Advance payment liabilities are released and revenues associated with such advance payment transactions are recognized upon delivery of and transfer of title, ownership, and risk of loss of the related products to the customer. Cash rebates and discounts granted to customers are classified as a reduction of revenue.

1.09 – Recognition of revenues from interest and dividends

Interest income is recognized on a time proportion basis, taking into account the principal outstanding and the effective rate over the period to maturity when it is determined that such income will accrue to the Group. Dividends are recognized when the right to receive the payment is established.

1.10 – Exchange rate differences

Exchange rate differences are recognized in line with the requirements of IAS 21, The Effect of Changes in Foreign Exchange Rates. The consolidated financial statements are presented in Swiss francs, which is the functional and presentation currency of the parent company.

Transactions and balances: Foreign currency transactions are translated into the functional currency using the exchange rates prevailing at the dates of the transactions.

Foreign exchange gains and losses resulting from the settlement of such transactions and from the translation of monetary assets and liabilities denominated in foreign currencies are recognized in the line »Finance costs« in the income statement, except when deferred in »Other comprehensive income« as qualifying cash flow hedges and net investment hedges.

Translation differences on debt securities and on other monetary financial assets measured at fair value are included in foreign exchange gains and losses in the line »Finance costs« in the income statement.

Group companies: Income statements and cash flow statements of foreign entities are translated into the Group's presentation currency at sales-weighted average exchange rates for the year and their balance sheets are translated at the exchange rates prevailing on 31 December.

All resulting exchange rate differences are recognized in Other comprehensive income in the line »Currency translation differences«. Exchange rate differences arising on the translation of the net investment in foreign entities and on borrowings and other currency instruments designated as hedges of such investments are recognized in »Other comprehensive income« in the line »Net investment hedge«. Net investments also include loans for which the settlement is neither planned nor likely to occur in the foreseeable future.

When a foreign operation is disposed of and as a consequence control, significant influence or joint control is lost, the cumulative amount in the translation reserve related to that foreign operation is reclassified to profit or loss as a part of the gain or loss on disposal.

When the Group's interest in a subsidiary that includes a foreign operation changes, while retaining control in the subsidiary, a proportionate part of the cumulative amount of the translation difference that was recognized in other comprehensive income is reclassified to non-controlling interests.

1.11 – Property, plant and equipment

Property, plant and equipment, except for the ones pertaining to mining activities, are valued at historical acquisition or production costs and depreciated on a straight-line basis to the income statement, using the following estimated useful lives in accordance with the Group guidelines:

· Buildings	15 to 40 years
· Machinery and equipment	10 to 16 years
· Furniture, vehicles, computer hardware	3 to 13 years
· Land is not depreciated	

Property, plant and equipment pertaining to mining activities are valued at historical costs and depreciated over their useful lives to the income statement using the units of production method.

When the entity has a present legal or constructive obligation to dismantle an item of property, plant and equipment or restore a site, its initial costs include an estimate of the costs of dismantling and removing the item and restoring the site on which it is located. A corresponding provision is recorded for the amount of the asset component.

Financing costs directly associated with the acquisition, construction or production of qualifying property, plant and equipment are capitalized as a part of the costs of these assets. Investment property is valued at cost less depreciation. As all investment property held by Clariant consists of industrial and administrative sites which have been in use for several decades, there is no active market which would give information on possible market prices. The fair values of the investment properties are therefore determined by way of external appraisals and value-in-use calculations.

1.12 – Leases

Clariant accounts for lease contracts in accordance with IFRS 16, Leases.

At the inception of the lease a right-of-use asset and a lease liability are recognized in the balance sheet. The asset is initially measured at the amount of the lease liability plus any initial direct costs incurred.

The lease liability is initially measured at the present value of the lease payments payable over the lease term, including variable lease payments depending on an index at the commencement date and the exercise price of purchase options if it is reasonably certain that the option will be exercised. The lease liability is discounted at the rate implicit in the lease. If that rate cannot readily be determined the incremental borrowing rate is used. Lease liabilities are subsequently re-measured to reflect possible changes in the lease terms.

Right-of-use assets are depreciated over of the duration of the lease contract including contractually agreed optional extension periods, whose exercise are deemed to be reasonably certain. The depreciation is recognized in operating income.

The unwinding of the discounting effect is included in the financial expense. Lease payments are accounted for as a repayment of the lease liability.

Expenses for lease contracts for objects with a value of less than CHF 5 thousand and lease contracts with a duration of up to twelve months are recognized directly in the income statement.

1.13 – Intangible assets

Goodwill is recognized as per the requirements of IFRS 3, Business Combinations, IAS 38, Intangible Assets, and IFRS 11, Joint arrangements. Goodwill is not amortized, but tested annually for impairment as required by IAS 36, Impairment of Assets.

Trademarks and licenses are capitalized at historical costs and amortized on a straight-line basis to the income statement over their estimated useful lives, with a maximum of ten years.

Acquired computer software licenses are capitalized on the basis of the costs incurred to acquire and bring to use the specific software. They are amortized on a straight-line basis to the income statement over their estimated useful lives (three to five years).

Costs directly associated with the production of identifiable and unique software and other intangible products controlled by the Group, that will probably generate economic benefits beyond one year, are recognized as intangible assets and depreciated over their useful life of three years. Direct costs include software development costs, personnel costs and advisory costs directly related to the software or product development and an appropriate portion of the relevant overheads. Costs associated with developing and maintaining common software programs are recognized as an expense when incurred.

Intangibles acquired in a business combination with the exception of mining rights are amortized using a straight-line method over their remaining useful lives as follows:

· Technology	3 to 15 years
· Customer relationships	6 to 20 years
· Tradenames	10 years
· Order backlog	2 years

Mining rights are depreciated over their useful lives using the units of production method.

On 1 June 2007, a European Union regulation on chemicals and their safe use came into effect. It deals with the Registration, Evaluation, Authorization and Restriction of Chemical Substances (REACH). REACH applies to all substances manufactured, placed on the market and used in the European Union, either on their own, in mixtures or in products. REACH requires the registration of certain substances, with annual volumes exceeding a consumption of 1 000 metric tons, by 2010 and various other substances depending on their category by 2018.

As a company active in the chemical industry, Clariant has incurred costs in connection with REACH. Due to their nature, these costs are considered within the context of IAS 38, Intangible Assets, and those qualifying for capitalization are reported as intangible assets. As the initial two phases of the registration were completed in 2010 and 2013 respectively, the corresponding costs capitalized as intangible assets are amortized since 2011 for the first phase and since January 2014 for the second phase on a straight-line basis to the income statement over their estimated useful lives of twelve years.

1.14 – Impairment of assets

Impairment of assets is recognized and disclosed as per the requirements of IAS 36, Impairment of Assets.

1.15 – Non-current assets and disposal groups held for sale

Non-current assets and disposal groups are classified as held for sale when their carrying amount is to be recovered through a sale transaction and a sale is considered highly probable. They are stated at the lower of the carrying amount and fair value less costs of disposal, as per the requirements of IFRS 5, Non-current Assets Held for Sale and Discontinued Operations.

1.16 – Inventories

Purchased goods are valued at acquisition costs, while self-manufactured products are valued at manufacturing costs including related production overhead costs. Inventory held at the balance sheet date is primarily valued at standard costs, which approximates actual costs on a weighted average basis. This valuation method is also used for valuing the costs of goods sold in the income statement. Adjustments are made for inventories with a lower net realizable value. Unsaleable inventories are fully written off. These adjustments are recorded as valuation allowances, which are deducted directly from the inventory value in the balance sheet. The allowances are reversed when the inventories concerned are either sold or destroyed and as a consequence are removed from the balance sheet.

1.17 – Trade receivables

Trade receivables are amounts due from customers for goods sold or services rendered in the ordinary course of business and are recognized in accordance with IFRS 9, Financial Instruments. They are generally due within 40 days and therefore classified as current. Trade receivables are recognized initially at the amount of considerations that is unconditional. The Group holds trade receivables with the objective to collect the contractual cash flows and therefore measures them subsequently at amortized cost. Details about the Group's impairment policies and the calculation of the loss allowance are provided in note 12.

1.18 – Cash and cash equivalents, short-term deposits

Cash and cash equivalents comprise cash in hand, deposits and calls with banks, as well as short-term investment instruments with an initial lifetime of 90 days or less. Bank overdrafts are reported within financial debt in current liabilities on the balance sheet. Short-term deposits are disclosed separately in the balance sheet if they have an original maturity between 90 and 365 days. They are valued at their nominal value, which is close to their fair market value.

1.19 – Derivative financial instruments and hedging

Derivative financial instruments and hedges are recognized in accordance with IFRS 9, Financial Instruments. Qualifying hedge instruments are derivatives and non-derivative financial assets and liabilities that are fully measured at fair value through profit and loss. Hedged items are assets or liabilities, unrecognized firm commitments, forecast transactions or net investments in foreign entities. They are reliably measurable and if not recognized they are highly probable. The hedges are accounted for either as fair value hedges in the case of exposures in fair value of recognized assets and liabilities or unrecognized firm commitments, as cash flow hedges in the case of exposures in cash flows arising from recognized assets or liabilities or forecast transactions that could affect profit or loss, or as hedges of a net investment in a foreign entity.

1.20 – Current income tax

The taxable profits (losses) of Group companies are calculated in accordance with the rules established by the taxation authorities of the countries in which they operate. They are the basis for the determination of income tax payments (reimbursements) for the reporting period in accordance with the prevailing local income tax rates. Current income tax is accounted for in accordance with the requirements of IAS 12, Income Taxes.

1.21 – Deferred income tax

Deferred income tax is calculated using the comprehensive liability method as per the requirements of IAS 12, Income Taxes.
No deferred income tax is calculated for the temporary differences on investments in Group companies, provided that the investor (parent company) is able to control the timing of the reversal of the temporary differences and it is probable that the temporary differences will not reverse in the foreseeable future.
Deferred income tax assets are recognized on tax losses incurred, if based on the business plans of the respective subsidiaries it is deemed probable that the tax losses are recoverable in the foreseeable future. The recoverability of these tax losses is assessed by Management on a regular basis.

1.22 – Employee benefits

Group companies operate various post-employment schemes, including both defined benefit and defined contribution pension plans, post-employment health care plans and other benefits. Obligations for employee benefits are determined and recorded in line with the requirements of IAS 19, Employee Benefits.

Defined contribution plans: Contributions to defined contribution plans are recorded in the income statement in the period to which they relate.

Defined benefit plans: For defined benefit plans, the amount to be recognized in the provision is determined using the Projected Unit Credit method. Independent actuaries perform the actuarial valuations for the defined benefit plans on a regular basis. For the larger plans these valuations take place annually. For the smaller ones valuations are performed at least every three years, with systematic roll-forwards in the years in between.
The retirement benefit obligations recognized in the balance sheet represent the present value of the obligations at the end of the reporting period less the fair value of the plan assets.
The prepaid pension assets recognized in the balance sheet are capitalized only to the extent of their recoverability, that is when a cash refund or a reduction in the future payments is available. The return on plan assets, except for amounts reflected in net interest income, are reported under other comprehensive income.
Actuarial gains and losses are charged or credited to equity in other comprehensive income in the period in which they arise. Past service costs are recognized immediately in the income statement.

Some Group companies **provide post-employment health care benefits** to their retirees. The entitlement to these benefits is usually conditional on the employee remaining in service up to retirement age and the completion of a minimum service period. The expected costs of these benefits are accrued over the period of employment using an accounting method similar to that for the defined benefit pension plans. Actuarial gains and losses arising from experience adjustments and changes in actuarial assumptions are charged or credited to equity in other comprehensive income in the period in which they arise.

The charges for defined benefit plans, defined contribution plans and termination benefits are included in personnel expenses and reported in the income statement under the corresponding functions of the related employees.

Other **long-term employee benefits** are employee benefits (other than post-employment benefits and termination benefits) which do not fall wholly due within twelve months after the end of the period in which the employees render the related service.

These include long-term compensated absences such as long-service or sabbatical leave and jubilee or other long-service benefits. The accounting policy for other long-term employee benefits is equal to that for post-employment benefits, with the exception that actuarial gains and losses are recognized immediately in the income statement.

Short-term employee benefits are employee benefits (other than termination benefits) which fall due wholly within twelve months after the end of the period in which the employees render the related service.

1.23 – Provisions

Provisions are recognized as per the requirements of IAS 37, Provisions, Contingent Liabilities and Contingent Assets.

1.24 – Research and development

Development expenses are capitalized to the extent that the recognition criteria set up by IAS 38, Intangible Assets, are met. Considering the uncertainties inherent to the development of new key products, Clariant does not capitalize the associated development costs. Experience has proven that the structure of research and development in the industries that Clariant engages in makes it difficult to demonstrate how single intangible assets (patents) will generate probable future economic benefits.

Laboratory buildings and equipment included in property, plant and equipment are depreciated over their estimated useful lives in accordance with the Group guidelines of note 1.11.

1.25 – Segment reporting

Segment information is presented in the same manner as in the internal reporting to the chief operating decision maker. The chief operating decision maker, responsible for strategic decisions, for the assessment of the segments' performance and for the allocation of resources to the segments, is the Executive Committee.

Clariant had seven Business Units (BU), two of which were reclassified to Discontinued Operations on 30 June 2019, as a result of the Group's decision to dispose of the Business Units Masterbatches and Pigments. The Business Unit Masterbatches was sold on 1 July 2020. The sale of the Business Unit Pigments within the next twelve months is deemed highly probable. For external reporting purposes the remaining five Business Units are grouped into three Business Areas (BA) (reportable segments), in accordance with IFRS 8, Operating Segments:

- Care Chemicals (BU ICS)
- Catalysis (BU Catalysts)
- Natural Resources (BU Oil & Mining Services, BU Functional Minerals, BU Additives)

The five Business Units were grouped into Business Areas in a manner that they reflect, in Management's opinion, the similar economic characteristics of certain BU's and common traits regarding products, markets, technologies and cyclicality. These Business Areas have full responsibility for their operating results.

The Business Area **Care Chemicals** comprises the BU Industrial & Consumer Specialties (ICS), food additives as well as the future Industrial Biotechnology business. It demonstrates a clear focus on highly attractive, high-margin, and low-cyclicality segments. The BA follows a lifestyle-driven megatrend and strengthens Clariant's image of being a supplier of green and sustainable products.

The Business Area **Catalysis** develops, manufactures, and sells a wide range of catalyst products for the chemical, fuel and automotive industries as well for the biofuel business. This BA is highly profitable with a cyclicality in line with the investment cycle of the petrochemical industry.

The Business Area **Natural Resources** comprising the BUs Oil & Mining Services, Functional Minerals and Additives is characterized by high growth and a low cyclicality as well as a strong megatrend orientation. Main drivers are the rising demand for high-value added specialty chemicals used in the oil, mining, food and packaging industries, the increased consumption of oil, gas and base metals and the increasing use of plastics with tailor-made properties in applications such as mobile phones, cars, construction, driven by the fast-growing economies.

Discontinued Operations comprise Business Units Masterbatches and Pigments

Corporate: Income and expenses relating to Corporate include the costs of the Corporate headquarters and some of the corporate coordination functions in major countries. In addition, Corporate includes certain items of income and expense, which are not directly attributable to specific Business Areas, like central R&D costs.

The Group's Business Areas are segments offering a large variety of products. The segments are managed separately because they manufacture, distribute and sell distinct products, which require differing technologies and marketing strategies. These products are also subject to risks and returns that are different from those of other segments.

Segment sales are sales reported in the Group's income statement directly attributable to a segment and the relevant portion of the company income that can be allocated on a reasonable basis to a segment, whether from sales to external customers or from transactions with other segments.

Segment operating expenses are expenses resulting from the operating activities of a segment directly attributable to the segment and the relevant portion of an expense that can be allocated on a reasonable basis, including expenses relating to sales to external customers and expenses relating to transactions with other segments. Inter-segment transactions are entered into under the normal circumstances and terms and conditions that would also be available to unrelated third parties. The segment net assets consist of segment assets, primarily property, plant and equipment, intangible assets, inventories and receivables, less segment liabilities. Usually no allocation of Corporate items is made to the segments. Corporate assets and liabilities principally consist of net liquidity (cash, cash equivalents and other current financial assets less financial debts) and deferred and current income taxes.

The Executive Committee assesses the performance of the operating segments based on income statement parameters like third-party sales, EBITDA, operating result and cashflow. Interest income, interest expense and taxes are not allocated to the segments. The return on the capital invested in each segment is measured by the Return on Net Assets (RONA).

1.26 – Share capital and other reserves

All issued shares are ordinary shares and as such are classified as equity. Incremental costs, directly attributable to the issue of new shares or options, are shown in equity as a deduction, net of tax, from the proceeds.

Written put options, where Clariant Ltd shares are the underlying, are reported as obligations to purchase Clariant Ltd shares if the number of shares is fixed and physical settlement for a fixed amount of cash is required, in case the option is exercised.

At inception, the obligation is recorded at the present value of the settlement amount of the option and the corresponding effect is recognized in shareholders' equity.

The liability is measured subsequently at amortized costs using the effective interest method. Upon settlement of such written put options, the liability is extinguished and the charge to equity is reclassified to the treasury shares.

Clariant Ltd shares, subject to such put options, are not considered to be outstanding for the purpose of basic earnings per share calculations, but are considered for the dilutive earnings per share calculations to the extent that they are dilutive.
Other reserves comprise the following items:

- **Share premium:** The share premium comprises the excess price paid over the par value of the share at the time of issuance of the share capital.

- **Cumulative translation reserves:** The translation reserves comprise the foreign exchange differences arising on the translation of the financial statements of the foreign subsidiaries stated in a currency other than the Group's functional currency. In addition, the cumulative translation reserves comprise the foreign exchange differences arising on the translation of financial liabilities denominated in a currency other than the functional currency of the parent company Clariant Ltd, which are at the same time designated as a hedge of a net investment in a foreign entity.

1.27 – Treasury shares

Treasury shares are deducted from equity at their par value of CHF 3.70 per share. Differences between this amount and the amount paid for acquiring, or received for disposing of treasury shares are recorded in retained earnings.

1.28 – Financial debt

Financial debt is recognized based on the requirements of IFRS 9, Financial Instruments: Recognition and Measurement.

All financial liabilities are valued at amortized cost.

1.29 – Financial assets

Financial assets are classified, recognized, measured and if necessary, impaired based on the requirements of IFRS 9, Financial Instruments.

Financial assets are valued at amortized cost if there is the intention to hold them in order to collect the contractual cash flow and this cash flow is only for the principal and interest.

Financial assets are valued at fair value through Other comprehensive income when they are held with the intention of getting the contractual cash flow, but also with the intention of eventually selling the asset.

Equity investments are measured at fair value through Other comprehensive income based on the Group's irrevocable election at initial recognition.

There are currently no financial assets at fair value though profit and loss.

Loss allowances are recognized for expected credit losses in line with the requirements of IFRS 9 Financial Instruments. Changes in the measurement of the loss allowance are recognized in profit and loss.

Purchases and sales of financial assets are recognized on settlement date, which is the date on which the Group receives or delivers the assets.

1.30 – Business combinations

The Group applies the acquisition method to account for business combinations in accordance with IFRS 3, Business Combinations, and recognizes any non-controlling interests in the acquiree at fair value (full goodwill method).

Acquisition-related costs are expensed as incurred.

1.31 – COVID-19

The outbreak of the COVID-19 pandemic has affected the world-economy deeply and, as a consequence also the environment of Clariant and the company itself. Clariant has early taken measures to minimize the COVID-19 impact by assuring people safety first while supporting its communities and concurrently running business continuity, cash and cost programs.
Business continuity could be preserved by stringent safety and contingency measures allowing very minimal disruption caused by temporary production site closures while cooperating closely with customers and suppliers along the value chains.
Given an overall decline in demand in various industries as a result of COVID-19 Clariant has suffered from slumps in sales to a degree varying between the Business Units. Generally, the largest dents in the sales development were registered in May.
Management together with the Business Units is continuously modeling and assessing the situation and executing stringent cash and cost programs.
These cash programs are centrally run and focus on optimizing net working capital efficiency, spend avoidance, cost cuts and operational flexibilization. Supply and production plans have been adjusted to assure efficient levels of inventories. The recoverability of inventories is also assessed to be unchanged compared to the time prior to the COVID-19 crisis due to tight inventory management. Debtors are prudently managed and so far, no increase in overdues or defaults was recorded.
The economic development is continuously monitored together with the Business Units and assessed for the need to adjust the business plans. For the year 2021 and later it is expected that the world economy will return to the growth path implied in the Group's mid-term plans.
Despite an increased level of uncertainty under the given circumstances the balance sheet and liquidity of Clariant are strong based on a consistent and prudent financing policy with sufficient financial flexibility.

2. Enterprise Risk Management Identification, Assessment and Management

In the framework of the Enterprise Risk Management Policy, risk assessments are prepared by Business Units, Service Units, Corporate Functions and Regions to assess threats that will impact the achievement of the objectives set for Clariant overall. These objectives are a result of the overall strategy of the Group as set by the Board of Directors and implemented by the Executive Committee.

The Executive Committee is responsible for monitoring the risk assessments for relevance and consistency. The Executive Committee has formed an »Ethics and Risk Management« subcommittee, which maintains an up-to-date understanding of areas where Clariant is, or may be, exposed to risk issues, and seeks to ensure that management is effectively addressing those issues. The Ethics and Risk Management Committee meets on a quarterly basis.

The short- and long-term objectives are set in the fourth quarter of the year. These objectives and threats are subject to scrutiny by the Executive Committee during meetings with each Business Unit. Also reviewed and discussed are proposed measures to reduce or contain threats. In that context responsibilities are assigned.
All stakeholders are required to report significant changes to existing identified risks and new threats as they arise.

Risk registers are maintained using financial and reputational impact and probability assessments to score and rank all identified risks. The assessment also addresses the measures in place to manage the risk identified with dates for completion of the measures.

When threats have been identified and quantified, they are delegated to qualified individuals who are required to deliver effective risk management. Depending on the nature of the risk identified, specific skill sets may be required for the management of those particular risks.

A summary risk assessment is submitted annually to the Executive Committee, the Audit Committee and the Board of Directors for review.

In case of new or changed risks, reporting is accelerated.

To support functional responsibility, certain functions have access to risk assessments to assist them in their roles.

Examples of such functions are Environmental Safety & Health Affairs (ESHA) to identify key sites for their property risk survey program or Group Procurement to ensure reliable and compliant supply of raw materials.

Examples of identified risks included in the risk register:

2.1 – Regulation & Compliance:
Clariant is subject to many rules and regulations as well as compliance standards. These include chemical industry, country, government and customer requirements as well as the European Union's (EU) Regulations on Registration, Evaluation, Authorization, and Restriction of Chemicals (REACH) or similar regulations in other countries.

The function Global Product Stewardship is responsible to ensure that all relevant legal requirements are met. Certain specific matters are delegated to other functions.

2.2 – Sites and locations
This includes manufacturing plants and equipment important for the production of Clariant products for sale to customers.
Also addressed are country and culture issues that could create threats to business objectives. The aim is to maintain high-quality and safe production facilities. ESHA and Regional Services are responsible for the management of the associated risks.

2.3 – Economic development
The achievement of corporate targets depends on economic development, which is continuously monitored in all markets. Economic uncertainty has increased and the growth of global economy could be lower than expected due to the pandemic and supply chain disruptions. Clariant is responding to the adverse economic environment with various performance programs addressing both cost and revenues.

2.4 – Sustainability transformation
Demand for sustainable products is clearly increasing which opens business opportunities. Non-availability of sustainable offerings represents a market disadvantage. Clariant is responding with the new organizational Unit Group Innovation & Sustainability which combines various resources to accelerate the sustainability transformation.

2.5 – Digital interconnection
Successful performance of the Clariant Group depends on properly working information systems. Cyber attacks may result in the loss of business and personal data, knowledge, facilities, or money, leading to interruptions in manufacturing and product deliveries. Such attacks might cause significant economic damages as well as loss of trust. Clariant is responding to the increased cyber risk with a reinforced security operations center, state-of-the-art software and frequent awareness campaigns.

3. Financial risk management

3.1 – Financial risk factors

The Group's activities expose it to a variety of financial risks: market risk (including foreign exchange risk, interest rate risk and price risk), credit risk, liquidity risk, counterparty risk, (re-)financing and funding risk, and also settlement risk. The Group's overall risk management program focuses on the unpredictability of financial markets and seeks to reduce potential adverse effects on the Group's financial performance at reasonable hedging costs. The Group uses derivative financial instruments, non-derivative financial instruments and operating strategies to hedge certain risks.

Financial risk management is carried out by the central treasury department (Corporate Treasury) under policies approved by the Executive Committee and the Board of Directors. Corporate Treasury identifies, evaluates and hedges financial risks in close cooperation with the Group's operating units and functions. Written principles for the management of overall foreign exchange risk, credit risk for the use of derivative financial instruments, non-derivative financial instruments and investing excess liquidity (counterparty risk) are in place.

3.1.1 – Market risk

3.1.1.1 – Foreign exchange risk

- **Exposure to foreign exchange risk:** The Group operates internationally and is exposed to foreign exchange risks arising from various currency exposures, primarily with respect to the euro and the US-dollar and to some extent the currencies of emerging countries. Foreign exchange risks arise from future commercial transactions, recognized assets and liabilities and net investments in foreign operations, when they are denominated in a currency that is not the respective subsidiary's functional currency.

- **Foreign exchange risk management:** To manage the foreign exchange risk arising from future commercial transactions and recognized assets and liabilities, entities in the Group use spot transactions, FX forward contracts, FX options and FX swaps according to the Group's foreign exchange risk policy. Corporate Treasury is responsible, in close coordination with the Group's operating units, for managing the net position in each foreign currency and for putting in place the appropriate hedging actions.

  The Group's foreign exchange risk management policy is to selectively hedge net transaction exposures in major foreign currencies.

  Currency exposures arising from the net assets of the Group's foreign operations are managed primarily through borrowings denominated in the relevant foreign currency.

  Detailed information regarding foreign exchange management is provided in note 31.

· **Foreign exchange risk sensitivity:** The estimated percentage change of the following foreign exchange rates used in this calculation is based on the historical foreign exchange rate volatility for a term of 360 days.

At 31 December 2020, if the euro had strengthened / weakened by 5 % (2019: 4 %) against the Swiss franc with all other variables held constant, pre-tax profit for the year would have been CHF 25 million higher / lower (2019: CHF 4 million higher/lower), mainly as a result of foreign exchange gains /losses on translation of the euro-denominated financing, cash and cash equivalents, intragroup financing and third party trade receivables and payables. Equity would have been CHF 54 million lower/higher (2019: CHF 31 million lower/higher), arising mainly from foreign exchange gains/ losses of the exposure of the foreign currency participations and the hedge instruments in the hedge of net investments, which partially offset this effect.

At 31 December 2020, if the US-dollar had strengthened / weakened by 8 % (2019: 6 %) against the Swiss franc with all other variables held constant, pre-tax profit for the year would have been CHF 34 million higher/lower (2019: CHF 23 million higher/lower) mainly as a result of foreign exchange gains/losses on translation of US-dollar denominated cash and cash equivalents, intragroup financing and trade receivables. Equity would have been CHF 30 million lower/higher (2019: CHF 15 million lower/higher), arising mainly from foreign exchange gains/ losses of the exposure of the foreign currency participations and the hedge instruments in the hedge of net investments, which partially offset this effect.

3.1.1.2 – Interest rate risk

· **Exposure to interest rate risk:** Financial debt issued at variable rates and cash and cash equivalents expose the Group to cash flow interest rate risk; the net exposure as per 31 December 2020 was not significant. Financial debt issued at fixed rates does not expose the Group to fair value interest rate risk because it is recorded at amortized costs. At the end of 2020 and 2019, 100 % of the net financial debt was at fixed rates.

· **Interest rate risk management:** It is the Group's policy to manage the costs of interest using fixed and variable rate debt and interest-related derivatives. Corporate Treasury monitors the net debt fix-to-float mix on an ongoing basis.

· **Interest rate risk sensitivity:** To calculate the impact of a potential interest rate shift on profit and loss, the net-debt exposure is taken into consideration for cash and debt maturing within the next 12 months. The variable Certificates of Indebtedness maturing after 12 months are also taken into consideration (interest rates comparison between the end of 2020 and end of 2019).
At 31 December 2020, if the CHF interest rates on net current financial debt including Certificates of Indebtedness with variable interest rates after 12 months had been 100 basis points higher / lower with all other variables held constant, pre-tax profit for the year would have been CHF 0.16 million higher/lower (2019: CHF 0 million higher/lower for a CHF interest rate shift of 1 basis point).
At 31 December 2020, if the USD interest rates on net current financial debt issued including Certificates of Indebtedness with variable interest rates after 12 months had been 100 basis points higher / lower with all other variables held constant, pre-tax profit for the year would have been CHF 0.65 million higher/lower (2019: CHF 1.54 million higher/lower for a USD interest rate shift of 1 basis point).
At 31 December 2020, if the EUR interest rates on net current financial debt issued including Certificates of Indebtedness with variable interest rates after 12 months had been 100 basis points higher / lower with all other variables held constant, pre-tax profit for the year would have been CHF 2.38 million higher/lower (2019: CHF 0.02 million higher/lower for a euro interest rate shift of 1 basis point).

3.1.2 – Other price risks

With regard to the financial statements as per 31 December 2020 and 2019, the Group was not exposed to other price risks in the sense of IFRS 7, Financial Instruments: Disclosures.

3.1.2.1 – Credit risk

· **Exposures to credit risk:** Credit risk arises from deposits of cash and cash equivalents, from entering into derivative financial instruments and from deposits with banks and financial institutions, as well as from credit exposures to wholesale and retail customers, including outstanding receivables and committed transactions with suppliers. Customer credit risk exposure is triggered by customer default risk and country risk. As per 31 December 2020, the Group had a diversified portfolio with more than 19 000 active credit accounts (2019: more than 30 300), with no significant concentration neither due to size of customers nor due to country risk. The high concentration of accounts receivables with a limited number of Corporate customers show moderate customer default risk.

· **Credit risk management:** Clariant has a Group credit risk policy in place to ensure that sales are made to customers only after an appropriate credit risk rating and credit line allocation process. Procedures are standardized within a customer credit risk policy and supported by the IT system with respective credit management tools. Credit lines are partially backed by credit risk insurance.

Ageing balance of trade receivables	**31.12.2020**	31.12.2019
Not due yet	93 %	90 %
Total overdue	7 %	10 %
– less than 30 days	5 %	7 %
– more than 30 days	2 %	3 %

Net trade receivables per Group internal risk category	**31.12.2020**	31.12.2019
A – low credit risk	22 %	26 %
B – low to medium credit risk	33 %	31 %
C – medium to above-average risk	28 %	28 %
D – high credit risk	17 %	15 %
N – customers awaiting rating	0 %	0 %

Financial instruments contain an element of risk that the counterparty may be unable to either issue securities or to fulfill the settlement terms of a contract. Clariant therefore – whenever possible – only cooperates with counterparties or issuers that are at least rated »BB-« when it comes to entering into deposits with such counterparties. The cumulative exposure to these counterparties is constantly monitored by Corporate Treasury. There is no expectation of a material loss due to counterparty risk.
The Group maintains a large cash pooling structure with a leading European bank, over which most European subsidiaries execute their cash transactions denominated in euro. As a result of this cash pool the Group at certain times has substantial current financial assets and at other times substantial current financial liabilities.

In view of the bank being rated »BBB+« (2019: BBB+) by the most important rating agencies, Clariant does not consider this to pose any particular counterparty risk.

At the balance sheet date 63 % (2019: 69 %) of the total cash and cash equivalents and short-term deposits were held with five banks (2019: five banks), each with a position between CHF 89 million and CHF 154 million (2019: between CHF 55 million and CHF 278 million). All of these banks are rated »A« (2019: »BBB+«) and better.

The table below shows in percentage of total cash and cash equivalents the share deposited with each of the three major counterparties at the balance sheet date (excluding the bank managing the euro cash pool):

Counterparty	Rating	31.12.2020
Bank 1	AA+	15%
Bank 2	A+	13%
Bank 3	A+	13%

Counterparty	Rating	31.12.2019
Bank A	A+	16%
Bank B	BBB+	9%
Bank C	A-	8%

3.1.3 – Liquidity risk

· **Liquidity risk management:** Cash flow forecasting is performed in the subsidiaries of the Group and in aggregate by Corporate Treasury. Corporate Treasury monitors the forecasts of the Group's liquidity requirements to ensure it has sufficient cash to meet its operational needs while maintaining sufficient headroom on its undrawn borrowing facilities. At all times the Group aims to meet the requirements set by the covenants of any of its borrowing facilities. Corporate Management therefore takes into consideration the Group's debt financing plans and financing options.

Cash which is not needed in the operating activities of the Group is invested in short-term money market deposits or marketable securities, if an interest income higher than the one on a regular bank deposit can be achieved. At 31 December 2020, the Group held money market funds of CHF 485 million (2019: CHF 408 million), thereof CHF 267 million with an initial tenor of more than 90 days (2019: CHF 304 million).
The following table analyzes the maturity profile of the Group's financial liabilities. The amounts disclosed are the contractual undiscounted cash flows and therefore do not reconcile with the financial liabilities presented in the consolidated balance sheets.

At 31 December 2020 in CHF m	Less than 1 year	Between 1 and 2 years	Between 2 and 5 years	Over 5 years
Borrowings	411	358	832	234
Interest on borrowings	30	24	34	4
Lease liabilities	43	35	61	75
Trade payables and other liabilities	949	5	10	45
Derivative financial instruments	-1	—	-6	—

At 31 December 2019 in CHF m	Less than 1 year	Between 1 and 2 years	Between 2 and 5 years	Over 5 years
Borrowings	587	327	744	414
Interest on borrowings	33	27	43	9
Lease liabilities	62	50	94	103
Trade payables and other liabilities	1 205	7	11	50
Derivative financial instruments	—	—	-6	—

The Group covers its liabilities out of generated operating cash flow, liquidity reserves in form of cash and cash equivalents including money market deposits (31 December 2020: CHF 1 004 million vs. 31 December 2019: CHF 942 million), out of uncommitted open cash pool limits and bank credit lines (31 December 2020: CHF 117 million vs. 31 December 2019: CHF 65 million), as well as out of additional uncommitted net working capital facilities and through issuance of capital market instruments.

Since 16 December 2016, Clariant Ltd has an agreement for a CHF 445 million (2019: CHF 500 million) five-year multi-currency revolving credit facility (RCF) with two one-year extension options. The RCF is structured as a club deal with ten key relationship banks with equal stakes and contains an accordion option for an increase up to CHF 600 million. The RCF is structured as a »backstop« facility for rating purposes to maintain Clariant's liquidity headroom. It contains customary covenants such as negative pledge, cross default, ownership change and restriction on disposals, mergers and subsidiary debt. The Group is required to maintain one financial covenant (debt leverage) that is tested at the end of each financial half year. The RCF has been extended until 16 December 2023.

3.2 – Fair value measurement

IFRS 13, Fair Value Measurement, requires the disclosure of fair value measurements for financial instruments measured at fair value in the balance sheets in accordance with the fair value measurement hierarchy.

The fair value hierarchies are defined as follows:

- **Level 1:** Quoted prices (unadjusted) in active markets for identical assets or liabilities.
- **Level 2:** Inputs other than quoted prices included within Level 1 that are observable for the asset or liability, either directly (that is, as prices) or indirectly (that is, derived from prices).
- **Level 3:** Inputs for the asset or liability that are not based on observable market data (that is, unobservable inputs).

3.2.1 – Valuation methods

As per 31 December 2020, the open derivative financial instruments held were valued using the following valuation methods:

Forward exchange rate contracts: The valuation of forward exchange rate contracts are based on the discounted cash flow model, using observable inputs such as interest curves and spot rates.

Exchange rate options: FX options are valued based on a Black-Scholes model, using major observable inputs such as volatility and exercise prices.

Equity investments valued at fair value through OCI: These are usually classified at Level 3. Their valuation is based on multiples of projected earnings and discounted cash flows.

The financial instruments measured at fair value through profit or loss were all classified as Level 2 (see note 31). There were no transfers between the levels in 2020 and 2019.

3.3 – Hedge Accounting

Derivatives are initially recognized at fair value on the date a derivative contract is entered into and are subsequently remeasured to their fair value at the end of each reporting period. The accounting for subsequent changes in fair value depends on whether the derivative is designated as a hedging instrument, and if so, the nature of the item being hedged. The Group designates certain derivatives as either:

- Hedges of a particular risk associated with the cash flows of recognized assets and liabilities and highly probable forecast transactions (cash flow hedges)
- Hedges of a net investment in a foreign operation (net investment hedges).

At the inception of the hedge relationship, the Group documents the economic relationship between hedging instruments and hedged items including whether changes in the cash flows of the hedging instruments are expected to offset changes in the cash flows of hedged items. The group documents its risk management objective and strategy for undertaking its hedge transactions.

The fair values of derivative financial instruments designated in hedge relationships are disclosed in note 31. Movements in the hedging reserve in shareholders' equity are shown in note 31. The full fair value of a hedging derivative is classified as a non-current asset or liability when the remaining maturity of the hedged item is more than 12 months; it is classified as a current asset or liability when the remaining maturity of the hedged item is less than 12 months. Trading derivatives are classified as a current asset or liability.

- **Cash flow hedges:** The effective portion of changes in the fair value of derivatives that are designated and qualify as cash flow hedges is recognized within equity. The gain or loss relating to the ineffective portion is recognized immediately in profit or loss. As long as the hedged cash flow item is probable the cumulative gain or loss on the respective hedge remains in equity and does not get recycled.

Amounts accumulated in equity are reclassified in the periods when the hedged item affects profit or loss, as follows:

- The gain or loss relating to the effective portion of the interest rate/cross currency swaps hedging variable rate or fixed rate borrowings is recognized in profit or loss within finance cost at the same time as the interest expense on the hedged borrowings.

When a hedging instrument expires, or is sold or terminated, or when a hedge no longer meets the criteria for hedge accounting, the cumulative gain or loss that was reported in equity is immediately reclassified to profit or loss.

- **Hedges of net investments** in foreign operations are accounted for similarly to cash flow hedges. Any gain or loss on the hedging instrument relating to the effective portion of the hedge is recognized in other comprehensive income and accumulated within equity. The gain or loss relating to the ineffective portion is recognized immediately in profit or loss.

Gains and losses accumulated in equity are reclassified to profit or loss when the foreign operation is partially disposed of or sold.

3.4 – Capital risk management

The Group's objectives when managing capital are to safeguard the ability to continue as a going concern in order to provide returns for the shareholders and benefits for other stakeholders and to maintain a capital structure suitable to optimize the cost of capital. This includes aspects of the credit rating.

In order to maintain or adjust the capital structure, the Group may adjust the amount of payouts to the shareholders, return capital to

the shareholders, issue new shares, or sell assets to reduce debt.

The Group monitors capital on the basis of invested capital as part of the return on invested capital concept. Invested capital is calculated as the sum of total equity as reported in the consolidated balance sheet plus current and non-current financial liabilities as reported in the consolidated balance sheet including lease liabilities, plus estimated cash needed for operating purposes, less cash and cash equivalents and near cash assets not needed for operating purposes.

Invested capital for the Group was as follows on 31 December 2020 and 2019 respectively:

in CHF m	**2020**	2019
Total equity	2381	2677
Total current and non-current financial liabilities (incl. lease liabilities)	2049	2289
Less cash and cash equivalents and short-term deposits[1]	–1004	–942
Less assets held for sale (net of liabilities related to assets held for sale)	-534	-746
Cash needed for operating purposes	77	88
Invested capital	**2969**	**3366**

[1] Short-term deposits represent deposits over 90 days.

This presentation has been modified compared to the prior year to reflect some adjustments made in the calculation of invested capital for continuing operations.

At the end of 2020, Clariant considers the invested capital to be adequate.

3.5 – IBOR Reform

Regulators have announced that the market should stop relying on LIBOR. Each of the Alternative Reference Rates (ARR) for the five major currencies involved is at a different stage in terms of development and liquidity and will be exchanged by End of 2021. The ARRs developed to-date are overnight rates and some of these rates are secured and some unsecured.

Clariant has two interest rate swaps maturing in August 2021, which are not affected by this change in LIBOR and several Certificates of Indebtedness with a floating interest rate based on the LIBOR.

Most Certificates of Indebtedness are denominated in EUR - floating tranches are based on EURIBOR which will in the nearer future most probably not be replaced. Floating Certificates of Indebtedness in other currencies (i.e. USD, CHF) have a fall back language in their documentation to replace the LIBOR with an alternative interest rate.

4. Critical accounting estimates and judgments

Estimates and judgments are continually evaluated and are based on historical experience and other factors, including expectations on future events that are believed to be reasonable under the circumstances.

The Group makes estimates and takes assumptions concerning the future. The resulting accounting estimates will, by definition, seldom equal the related actual results. The estimates and assumptions that have a significant risk of causing a material adjustment to the carrying amounts of assets and liabilities within the next financial year are discussed below.

4.1 – Estimated impairment of goodwill, intangibles, and property, plant and equipment

The Group tests annually whether goodwill has suffered any impairment in accordance with the requirements of IAS 36, Impairment of Assets. The recoverable amounts of all cash generating units have been determined based on value-in-use calculations reported in continuing operations. The recoverable amounts of all cash generating units classified as discontinued operations have been valued at fair value less cost to sell.

The recoverable value of intangibles and property, plant and equipment is also assessed applying value-in-use calculations. These calculations require the use of estimates, in particular in relation to the expected growth of sales, the discount rates, the development of raw material prices and the success of restructuring measures implemented.

4.2 – Environmental liabilities

The Group is exposed to environmental regulations in numerous jurisdictions. Significant judgment is required in determining the worldwide provision for environmental remediation. The Group constantly monitors its sites to ensure compliance with legislative requirements and to assess the liability arising from the need to adapt to changing legal demands. The Group recognizes liabilities for environmental remediation based on the latest assessment of the environmental situation of the individual sites and the most recent requirements of the respective legislation. Where the final remediation results in expenses that differ from the amounts previously recorded, such differences impact the income statement in the period in which such determination is made.

4.3 – Income tax and other taxes

The Group is subject to income tax and other taxes in numerous jurisdictions. Significant judgment is required in determining the worldwide provision for income tax and other taxes. There are many transactions and calculations for which the ultimate tax determination is uncertain at the time a liability must be recorded. The Group recognizes liabilities for anticipated tax audit issues based on estimates of whether additional taxes will be due. Where the final tax outcome of these matters is different from the amounts initially recorded, such differences impact the income tax and deferred tax provisions in the period in which such determination is made (see note 10). As a substantial part of Clariant's activities are based in Germany, this is where the largest tax risks arise. Some subsidiaries generate tax losses. Often these can be used to offset taxable gains of subsequent periods. The Group constantly monitors the development of such tax loss situations. Based on the business plans for the subsidiaries concerned, the recoverability of such tax losses is determined. In the case that a tax loss is deemed to be recoverable, the capitalization of a deferred tax asset for such a tax loss is then decided.

4.4 – Estimates for the accounting for employee benefits

IAS 19, Employee Benefits, requires that certain assumptions are made in order to determine the amount to be recorded for retirement benefit obligations and pension plan assets, in particular for defined benefit plans. These are mainly actuarial assumptions such as expected future salary increases, long-term increase in health care costs, average life expectancy and discount rates. Substantial changes in the assumed development of any of these variables may significantly change the Group's retirement benefit obligation and pension assets (see note 20).

4.5 – Provisions and Contingencies

Clariant is regularly confronted with situations where possible obligations arising from past events will only be confirmed by the occurrence or non-occurrence of future events not wholly within the control of the Group or where the amount of the obligation cannot be reliably estimated. Clariant reviews such situations at each balance sheet date and makes judgments based on all information available to determine if an outflow of resources can be reliably estimated or not. If this is not possible a contingency is reported for each material case.

4.6 – Assets held for sale and liabilities directly associated with assets held for sale

As a result of the decision to divest two of its Business Units, Clariant reclassified the assets and liabilities pertaining to those activities to »held for sale« in accordance with IFRS 5 (see note 1.03). In distinguishing between the assets and liabilities pertaining to continuing operations and those pertaining to discontinued operations judgment had to be applied, as a part of those assets and liabilities are used by both types of activities.

All assets and liabilities exclusively pertaining to one Business Unit were allocated to that Business Unit. In all other cases a critical assessment was conducted as to whether it could be reasonably expected that the asset or liability concerned would be transferred in a disposal. This assessment was made based on past experience and most recent market developments. The allocation made may have to be adjusted when the disposals are actually consummated.

5. Property, plant and equipment

in CHF m	Land	Buildings	Machinery and equipment	Furniture, vehicles, computer hardware	Assets under construction	**Total 2020**
Cost						
As per 1 January	340	1 128	1 981	296	248	3 993
Additions	1	8	40	11	228	288
Acquired in business combinations (see note 27)	—	2	1	—	—	3
Reclassified to/ from held for sale (see note 25)	—	63	–48	–7	10	18
Disposals	–40	–255	–43	–15	–1	–354
Reclassifications	2	23	90	7	–122	—
Exchange rate differences	–10	–88	–97	–18	–12	–225
At 31 December	**293**	**881**	**1 924**	**274**	**351**	**3 723**
Accumulated depreciation and impairment						
As per 1 January	–105	–700	–1 310	–229	—	–2 344
Reclassified to/ from held for sale (see note 25)	–1	–10	–13	3	—	–21
Disposals	27	242	39	14	—	322
Depreciation	—	–33	–109	–20	—	–162
Impairment (see note 28)	—	–2	–7	–2	—	–11
Exchange rate differences	1	49	57	14	—	121
At 31 December	**–78**	**–454**	**–1 343**	**–220**	**—**	**–2 095**
Net book value	**215**	**427**	**581**	**54**	**351**	**1 628**

Impairments recognized in the income statement amounted to CHF 11 million in 2020 (2019: less than CHF 1 million). Impairments recognized in 2020 arose as a result of restructuring measures entailing site closures and of disposal projects.

Exchange rate differences mainly arise from the changes in the USD/Swiss franc and Brasilian real/Swiss franc exchange rates. Both currencies significantly devalued against the Swiss franc in 2020.

As at 31 December 2020, commitments for the purchase of property plant and equipment concerned various projects mainly in Germany and China and totalled CHF 61 million (2019: CHF 182 million).

As per 31 December 2020, property, plant and equipment acquired by way of Business Acquisition, with costs of CHF 3 million were recorded. See also Note 27.

Additions in 2020 includes CHF 83 million of investments in a cellulosic ethanol plant in Romania.

Disposals of 2020 include CHF 16 million of assets (net book value) in Germany.

Disposals of 2019 include CHF 48 million of assets (net book value) which are part of the sale of the Healthcare Packaging Business (see note 25).

in CHF m	Land	Buildings	Machinery and equipment	Furniture, vehicles, computer hardware	Assets under construction	**Total 2019**
Cost						
Balance 31 December 2018	405	1 493	2 924	410	207	5 439
Changes in accounting policy [1]	–10	–14	–2	–13	—	–39
As per 1 January	**395**	**1 479**	**2 922**	**397**	**207**	**5 400**
Additions	1	14	53	19	186	273
Reclassified to held for sale (see note 25)	–43	–309	–827	–89	–32	–1 300
Disposals	—	–31	–147	–31	–4	–213
Reclassifications	2	23	67	9	–101	
Exchange rate differences	–15	–48	–87	–9	–8	–167
At 31 December	**340**	**1 128**	**1 981**	**296**	**248**	**3 993**
Accumulated depreciation and impairment						
Balance 31 December 2018	–111	–863	–2 070	–314	—	–3 358
Changes in accounting policy [1]	2	8	1	4	—	15
As per 1 January	–109	–855	–2 069	–310	—	–3 343
Reclassified to held for sale (see note 25)	—	149	706	75	—	930
Disposals	—	16	117	28	—	161
Depreciation	—	–41	–130	–29	—	–200
Exchange rate differences	4	31	66	7	—	108
At 31 December	**–105**	**–700**	**–1 310**	**–229**	**—**	**–2 344**
Net book value	**235**	**428**	**671**	**67**	**248**	**1 649**

[1] Impact of the introduction of IFRS 16, Leases

In 2019, IFRS 16 Leases became effective and the accounting policy was changed accordingly. The adoption of IFRS 16 affected the net book value of property, plant and equipment by a decrease of CHF 17 million acquired by way of finance lease and by a decrease of CHF 7 million of Leasehold land.

Investment properties (Clariant as a lessor in operating leases)
As a result of the continuous efforts to increase efficiency and to optimize the structure of its facilities sometimes production or adminstrative sites are vacated. In order to minimize expenses Clariant seeks to find tenants for these facilities.

As a consequence such facilities, which generate income exclusively from rental contracts, are considered as investment property in line with the requirements of IAS 40, Investment property. All investment property is value at cost less depreciation.

Investment property in Clariant is almost entirely located in Switzerland and Germany. The gross book value of investment property amounted to CHF 524 million on 31 December 2020 (CHF 600 million on 31 December 2019).

Accumulated depreciation on investment property amounted to CHF 382 million on 31 December 2020 (CHF 438 million on 31 December 2019).

The net book value amounted to CHF 142 million on 31 December 2020 (CHF 162 million on 31 December 2019).

Depreciation amounted to CHF 1 million in 2020 (CHF 1 million in 2019).
Income from investment properties amounted to CHF 6 million in 2020 (CHF 11 million in 2019) and is recorded in SG&A in the segment Corporate.

Expected minimum lease income varies between CHF 5 million and CHF 6 million (2019: CHF 7 million and CHF 8 million) per annum for the next five years and amounts to CHF 193 million for later periods (2019: CHF 199 million).

Since all investment property consists of industrial and administrative sites which have been in use for several decades there is no active market which would give information on possible market prices, if such sites were to be sold to a third party. The fair values of the investment properties were therefore determined by way of external appraisals and value-in-use calculations. As of 31 December 2020, the estimated fair value of investment property amounted to CHF 186 million (CHF 204 million on 31 December 2019).

6. Intangible assets

in CHF m	Goodwill	Technology	Customer relationships	Trade names	Other	**Total 2020**
Cost						
As per 1 January	1 069	238	387	87	292	2 073
Additions	—	1	—	—	10	11
Acquired in business combinations (see note 27)	2	—	2	—	2	6
Disposals	—	—	—	—	–2	–2
Reclassified to held for sale (see note 25)	–15	–6	–2	–1	–5	–29
Exchange rate differences	–58	–2	–19	—	–9	–88
At 31 December	**998**	**231**	**368**	**86**	**288**	**1 971**
Accumulated amortization and impairment						
As per 1 January	**–24**	**–177**	**–243**	**–80**	**–198**	**–722**
Disposals	—	—	—	—	1	1
Amortization	—	–12	–18	–4	–23	–57
Reclassified to held for sale (see note 25)	15	6	2	1	4	28
Exchange rate differences	5	1	8	—	3	17
At 31 December	**–4**	**–182**	**–251**	**–83**	**–213**	**–733**
Net book value	**994**	**49**	**117**	**3**	**75**	**1 238**

in CHF m	Goodwill	Technology	Customer relationships	Trade names	Other	**Total 2019**
Cost						
As per 1 January	1 303	252	414	110	368	2 447
Additions	—	—	—	—	16	16
Disposals	–127	–10	–15	–9	–25	–186
Reclassified to held for sale (see note 25)	–77	—	–4	–13	–61	–155
Exchange rate differences	–30	–4	–8	–1	–6	–49
At 31 December	**1 069**	**238**	**387**	**87**	**292**	**2 073**
Accumulated amortization and impairment						
As per 1 January	–42	–175	–233	–94	–221	–765
Disposals	—	8	6	7	15	36
Reclassified to held for sale (see note 25)	17	—	3	12	38	70
Amortization	—	–12	–20	–6	–34	–72
Exchange rate differences	1	2	1	1	4	9
At 31 December	**–24**	**–177**	**–243**	**–80**	**–198**	**–722**
Net book value	**1 045**	**61**	**144**	**7**	**94**	**1 351**

Amortization is allocated to the line in the income statement, which represents the function to which the intangible asset pertains.

In 2020 and 2019 no impairment losses were recognized.

As per end of 2020, other intangible assets include the carrying value in the amount of CHF 34 million (2019: CHF 36 million) capitalized in connection with the REACH regulation and CHF 4 million (2019: CHF 18 million) of capitalized internally generated intangibles.

Disposals of 2019 include CHF 146 million of assets (net book value) which are part of the sale of the Healthcare Packaging Business (see note 25).

Impairment test for goodwill. Goodwill is allocated to the Group's cash generating units (CGU). Cash generating units consist of Business Units which are for external reporting purposes reported under the corresponding Business Areas (reportable segments, see note 1.25).

Goodwill is allocated to the following CGUs:

in CHF m	**31.12.2020**	31.12.2019
Industrial & Consumer Specialties	60	65
Masterbatches	—	47
Pigments	11	12
Functional Minerals	139	141
Catalysts	645	675
Oil & Mining Services	150	164
Total net book value	**1 005**	**1 104**
Thereof reclassified to held for sale:		
Masterbatches	—	–47
Pigments	–11	–12
Total as reported in the balance sheet	**994**	**1 045**

Continuing operations

The value-in-use calculations use cash flow projections based on the strategic plans up to 2025 as approved by the Executive Committee. For the terminal value a market growth of 2.25 % is assumed. The main assumptions used for cash flow projections are EBITDA in percent of sales and sales growth. The assumptions regarding these two variables are based on Management's past experience and future expectations of business performance. The pre-tax discount rates used are based on the Group's weighted average cost of capital. The assumed pre-tax discount rate was 10.68 % for all cash generating units (2019: 11.59 %). As all CGUs operate in similar geographic areas, have the same source of funds and a similar risk pattern a uniform discount rate is applied to all of them.

For all CGUs it was assumed that they achieve sales growth in line with or higher than market growth, based on the specific strategic plans for the respective CGUs. It was also assumed that the EBITDA in percent of sales will improve over present performance as a result of the continuous improvement measures implemented. The conclusion was that the net present value of the expected cash flows exceeds the carrying amount of the net assets allocated on a value-in-use basis of all CGU's.

Discontinued operations

The estimated recoverable amount of the CGU and BU Pigments which is classified as a discontinued operation was determined based on non-binding offers obtained in the disposal process. Based on these offers the fair value less cost to sell of the CGU exceeds its book value. For further details on discontinued operations, see note 25.

7. Leases

in CHF m	31.12.2020	31.12.2019
Right-of-use assets - net book value		
Leasehold land	22	21
Buildings	158	175
Machinery and equipment	19	25
Furniture, vehicles, computer hardware	22	32
Total	**221**	**253**
Reclassified to held for sale (see note 25)	–17	–34
Total as reported in the balance sheet	**204**	**219**
Lease liabilities		
Non-current lease liabilities	173	195
Current lease liabilities	41	51
Total	**214**	**246**
Reclassified to held for sale (see note 25)	–14	–29
Total as reported in the balance sheet	**200**	**217**

Additions to the right-of-use assets during 2020 were CHF 51 million (2019: CHF 65 million).

Consolidated income statements include the following amounts relating to leases:

in CHF m	2020	2019
Depreciation expense		
Leasehold land	–2	–2
Buildings	–29	–32
Machinery and equipment	–6	–8
Furniture, vehicles, computer hardware	–13	–16
Total depreciation	**–50**	**–58**
Interest expense, included in finance costs	–11	–12
Expense relating to short-term leases	–13	–16
Expense relating to leases of low-value assets	–5	–7
Expense relating to variable lease payments not included in lease liabilities	—	—
Total	**–79**	**–93**
Thereof reported under discontinued operations	4	2
Total continuing operations	**–75**	**–91**

The total cash outflow for leases in 2020 was CHF 66 million (2019: CHF 70 million).

There are CHF 1 million of commitments for leases not commenced at year-end (2019: CHF 0 million).

The potential future cash outflows of less than CHF 1 million that are not reflected in the measurement of lease liabilities as at 31 December 2020 arising only from the extension option (2019: CHF 1 million).

8. Investments in associates and joint ventures

in CHF m	2020	2019
As per 1 January	**349**	**368**
Change in the scope of consolidation	—	1
Additions	2	1
Disposals	–1	–10
Share in profit	63	52
Share in other comprehensive income of associates and joint ventures	1	–9
Dividends received	–44	–42
Exchange rate differences	–26	–12
At 31 December	**344**	**349**
Thereof joint ventures	118	109
Reclassified to held for sale (see note 25)	–191	–101
Total as reported in balance sheet at 31 December	**153**	**248**

The key financial data of the Group's principal associates is as follows:

INVESTMENTS IN ASSOCIATES:

	Infraserv GmbH & Co. Höchst KG		Infraserv GmbH & Co. Gendorf KG		Infraserv GmbH & Co. Knapsack KG		Others	
	Germany		Germany		Germany			
in CHF m	**2020**	2019	**2020**	2019	**2020**	2019	**2020**	2019
Summarized financial information								
Interest held %	33%	33%	50%	50%	21%	21%	—	—
Revenue	927	1 025	234	246	234	256	115	174
Total comprehensive income	59	34	34	24	13	13	16	14
Net income	63	57	34	29	13	13	16	14
Other comprehensive income	–4	–23	—	–5	—	—	—	—
Current assets	265	287	91	91	66	58	86	84
Non-current assets	815	678	199	184	126	122	23	26
Current liabilities	–213	–198	–77	–83	–63	–54	–31	–31
Non-current liabilities	–605	–505	–76	–67	–41	–36	–3	–4
Net assets	**262**	**262**	**137**	**125**	**88**	**90**	**75**	**75**
Reconciliation of book value								
Book value beginning of period	**86**	**95**	**63**	**60**	**18**	**19**	**73**	**86**
Additions	—	—	—	—	—	—	2	1
Disposals	—	—	—	—	—	—	–1	–10
Change in the scope of consolidation	—	—	—	—	—	—	—	1
Share in profit for the period	21	19	17	15	3	3	6	2
Share in other comprehensive income	–1	–7	—	–2	—	—	—	—
Dividends received	–18	–17	–10	–8	–3	–3	–5	–5
Foreign exchange rate differences	–1	–4	–1	–2	1	–1	–23	–2
Book value end of the period	**87**	**86**	**69**	**63**	**19**	**18**	**52**	**73**
Group's share in net assets	**87**	**86**	**69**	**63**	**19**	**19**	**52**	**73**
Taxes, minorities and other adjustments	—	—	—	—	—	–1	—	—
Book value at the end of the period	**87**	**86**	**69**	**63**	**19**	**18**	**52**	**73**
Reclassified to held for sale (see note 25)	55	86	—	—	—	—	28	15

The Infraserv companies were set up by the former Hoechst group to cater to the infrastructure needs of its subsidiaries in Germany prior to 1997. The shareholdings in associates summarized under »Others« concern mainly companies specializing in selling Clariant products.

On 31 December 2020, accumulated unrecognized losses amounted to CHF 3 million (2019: CHF 1 million).

The key financial data of the Group's principal joint ventures is as follows:

INVESTMENTS IN JOINT VENTURES:

	Scientific Design Company Inc.		Global Amines group	
	USA			
in CHF m	**2020**	2019	**2020**	2019
Summarized financial information				
Interest held %	50%	50%	50%	50%
Revenue	121	131	195	188
Total comprehensive income	17	18	19	5
Net income	17	18	14	7
Other comprehensive income	—	—	5	–2
Current assets	87	80	96	84
Non-current assets	30	32	67	66
Current liabilities	–25	–20	–77	–74
Non-current liabilities	–8	–8	–20	–28
Net assets	**84**	**84**	**66**	**48**
Reconciliation of book value				
Book value beginning of period	**108**	**108**	**1**	**—**
Share in profit for the period	9	12	7	1
Share of other comprehensive income	—	—	2	—
Dividends received	–8	–9	—	—
Foreign exchange rate differences	–1	–3	—	—
Book value end of the period	**108**	**108**	**10**	**1**
Group's share in net assets at the end of the period	**42**	**42**	**33**	**24**
Fair value adjustment/goodwill	66	66	—	—
Impairment	—	—	–23	–23
Taxes, minorities and other adjustments	—	—	—	—
Book value at the end of the period	**108**	**108**	**10**	**1**
Reclassified to held for sale (see note 25)	108	—	—	—

Scientific Design Company Inc. is a producer of ethylene and oxide catalysts headquartered in the United States and has around 140 employees. Co-owner is the Saudi Arabia-based Sabic group.

Global Amines group is a joint venture of Clariant and Wilmar International Limited, a leading Asian agribusiness group, headquartered in Singapore and serves as a global platform for the production and sale of fatty amines and selected amine derivatives. It also has worldwide sales, distribution and production facilities. The joint venture has existed since 26 October 2012 and is operated as part of the Business Unit ICS.

9. Financial assets

in CHF m	**2020**	2019
As per 1 January	218	211
Additions	—	3
Fair value adjustment	–10	16
Repayments and disposals	–5	–4
Exchange rate differences	–1	–8
At 31 December	**202**	**218**

Financial assets include loans to joint ventures and a number of small-scale participations in companies, mostly in Germany and in Switzerland engaged in activities closely related to the ones of Clariant.
In 2019, Clariant acquired a 10% stake in Plant Advanced Technologies SA, which develops plant-based active ingredients for cosmetics. The purchase price amounted to CHF 2 million.

In 2020 loans amounted to CHF 4 million (2019: CHF 9 million). Participations amounted to CHF 198 million in 2020 (CHF 209 million in 2019).

In 2020, loans in the amount of CHF 5 million (2019: CHF 4 million) from associates were repaid.

While loans are carried at amortized cost, participations are valued at fair value through OCI using "Level 3" methods.

The valuation of participations is based on multiples of projected earnings and discounted cash flows. The change in participation values was mainly driven by the fair value estimation performed in 2020 and resulting in a decrease of CHF 10 million. The loss on the revaluation, amounting to CHF 9 million net of tax, was recognized in Other comprehensive income.

The key unobservable inputs used in the fair value estimation of the most material participation that constitutes 87.9 % of these shareholdings are as follows: long-term revenue growth rate 1%, long-term pre-tax operating margin 16.3 % and weighted average cost of capital 9.1%. The sensitivity analysis shows that if the long-term growth rate had been higher/lower by 1 % with all other variables held constant, the fair value would have been CHF 23 million higher/CHF 18 million lower. If the long-term pre-tax operating margin had been higher/lower by 1 % with all other variables held constant, the fair value would have been CHF 11 million higher/lower. If the weighted average cost of capital had been higher/lower by 0.5% with all other variables held constant, the fair value would have been CHF 12 million lower/CHF 13 million higher.

10. Taxes

in CHF m	**2020**	2019
Current income taxes	–166	–120
Deferred income taxes	–8	–20
Total taxes	**–174**	**–140**
Thereof reported under discontinued operations	78	35
Total continuing operations	**–96**	**–105**

The main elements contributing to the difference between the Group's overall expected tax expense/rate and the effective tax expense/rate are:

in CHF m	**2020**	in %	2019	in %
Income before taxes from continuing operations	212		71	
Income before taxes from discontinued operations	761		107	
Income before taxes total	**973**		**178**	
Expected tax expense/rate[1]	**–150**	**15.4**	**–44**	**24.7**
Effect of taxes on items not tax-deductible	–115	11.8	–114	64.0
Effect of utilization and changes in recognition of tax losses and tax credits	–40	4.1	–38	21.3
Effect of tax losses and tax credits of current year not recognized	–10	1.0	–5	2.8
Effect of adjustments to taxes recognized in prior periods	–4	0.4	2	–1.1
Effect of tax exempt income	149	–15.3	73	–41.0
Effect of other items	–4	0.4	–14	7.9
Effective tax expense/rate	**–174**	**17.9**	**–140**	**78.7**
Thereof reported under discontinued operations	78	10.2	35	32.7
Effective tax expense/rate continuing operations	**–96**	**45.3**	**–105**	**147.9**

[1] Calculated based on the income before tax of each subsidiary (weighted average).

In 2020 the recorded tax expense was adversely impacted by the non-recognition of deferred tax assets on tax losses as their recoverability was not considered probable, the US minimum tax BEAT and further one-time events. These effects and the fact that no further tax assets on temporary differences were capitalized in France and Switzerland as in the prior year led to a higher effective tax rate from continuing operations.

On May 19, 2019 the Swiss public voted to adopt the Federal Act on Tax Reform and AHV Financing ("TRAF") confirming the reform of corporate taxation in Switzerland. The tax reform brings the replacement of certain preferential tax regimes with a new set of internationally accepted measures. The legislative changes align with the broad reduction of the cantonal corporate taxes. As at January 1, 2020 new regulations concerning Group taxation have become effective. The most relevant changes for the Group include a gradual decrease in the Basel-Land effective tax rate from 20.7% to 13.45% by 2025 and the abolishment of special tax regimes. The effective tax rate for Clariant Ltd will increase from 7.8% to 13.45% over that period. Based on these changes the Group remeasured its deferred tax positions on the balance sheet as at December 31, 2019. The cumulative impact was a net increase in deferred tax assets of CHF 8 million, of which CHF 7 million are related to actuarial gains/losses on Swiss pension plans and were recorded in other comprehensive income. The remaining adjustment of CHF 1 million was a one-time income recorded in the income statement. The deferred tax effects recorded in the 2020 consolidated financial statement did not impact current tax payments.

The movement of the net deferred income tax balance is as follows:

in CHF m	PPE, RoU assets and intangible assets	Retirement benefit obligations	Tax losses and tax credits	Other liabilities and provisions	**Total**	Thereof offset within the same jurisdiction	**Total**
Deferred tax assets at 31 December 2018	187	118	108	20	433	–164	269
Deferred tax liabilities at 31 December 2018	–188	–3	—	–20	–211	164	–47
Reclassification from Other accruals to PPE [1]	–72			72			
Net deferred tax balance at 1 January 2019	**–73**	**115**	**108**	**72**	**222**		**222**
Charged/credited to income	26	–15	–39	6	–22		
Effect of disposals	2				2		
Total charged/credited to income statement	**28**	**–15**	**–39**	**6**	**–20**		
Charged/credited to other comprehensive income	—	37	—	–2	35		
Effect of disposals	–15	–2	–2	–1	–20		
Reclassified to held for sale (see note 25)	—	–22	—	—	–22		
Exchange rate differences	1	–5	–1	1	–4		
Net deferred tax balance at 31 December 2019	**–59**	**108**	**66**	**76**	**191**	**—**	**191**
Deferred tax assets at 31 December 2019	170	110	66	101	447	–213	234
Deferred tax liabilities at 31 December 2019	–229	–2	—	–25	–256	213	–43
Net deferred tax balance at 1 January 2020	**–59**	**108**	**66**	**76**	**191**	**—**	**191**
Charged/credited to income statement	2	–1	2	20	23		
Effect of disposals	1	—	–33	1	–31		
Total charged/credited to income statement	**3**	**–1**	**–31**	**21**	**–8**		
Charged/credited to other comprehensive income	—	–18	1	—	–17		
Effect of disposals	–23	–7	4	–4	–30		
Reclassified to/ from held for sale (see note 25)	—	16	—	—	16		
Exchange rate differences	6	–2	3	–17	–10		
Net deferred tax balance at 31 December 2020	**–73**	**96**	**43**	**76**	**142**	**—**	**142**
Deferred tax assets at 31 December 2020	137	97	43	103	380	–220	160
Deferred tax liabilities at 31 December 2020	–210	–1	–	–27	–238	220	–18
Net deferred tax balance at 31 December 2020	**–73**	**96**	**43**	**76**	**142**	**—**	**142**

[1] The numbers of the opening balance of 2019 were restated for the reclassification of a deferred tax balance in the amount of CHF72 million from pertaining to Other liabilities and provisions to pertaining to PPE, RoU assets and intangible assets.

Of the deferred tax assets capitalized on tax losses, CHF 17 million refer to tax losses of the US subsidiaries (2019: CHF 39 million), CHF 4 million to tax losses of the Spanish subsidiaries (2019: CHF 5 million) and CHF 10 million to tax losses of the Indian subsidiaries (2019: CHF 10 million). Clariant considers it probable that these tax losses can be recovered.

Deferred income tax liabilities have not been established for withholding tax and other taxes that would be payable on the unremitted earnings of certain foreign subsidiaries, as such amounts are currently regarded as permanently reinvested. These unremitted earnings totaled CHF 2 415 million at the end of 2020 (2019: CHF 2 663 million).

The change compared to the prior year is primarily the result of Group-internal transactions.

The tax losses on which no deferred tax assets are recognized are reviewed for recoverability at each balance sheet date. The largest part of these tax losses arose in France (with a tax rate of 28 %) and in China (with a tax rate of 25%). At present their recoverability is not considered probable.

Tax losses on which no deferred tax assets were recognized are as follows:

in CHF m	**31.12.2020**	31.12.2019
EXPIRY BY:		
2020	—	24
2021	15	25
2022	12	13
2023	12	13
2024	6	—
after 2024 (2019: after 2023)	406	310
Total	**451**	**385**
Unrecognized tax credits	—	1

Tax credits amounting to CHF 3 million were recognized in 2020. They expire in and after 2026.

Temporary differences on which no deferred tax recognized amount to CHF 1160 million in 2020 (2019: CHF 710 million).

11. Inventories

in CHF m	**31.12.2020**	31.12.2019
Raw material, consumables, work in progress	290	414
Finished products	430	556
Total	720	970
Reclassified to held for sale (see note 25)	–186	–319
Total as reported in the balance sheet	**534**	**651**

in CHF m	**2020**	2019
Movements in write-downs of inventories		
As per 1 January	–40	–47
Additions	–23	–15
Reversals	14	20
Effect of disposals	6	—
Exchange rate differences	3	2
At 31 December	**–40**	**–40**
Thereof reclassified to held for sale	–9	–17

As at 31 December 2020 and 2019, no inventories were pledged as collateral for liabilities.

The cost for raw materials and consumables recognized as an expense and included in "Costs of goods sold" amounted to CHF 1 537 million (2019: CHF 1 769 million) for continuing operations.

12. Trade receivables

in CHF m	**31.12.2020**	31.12.2019
Gross accounts receivable – trade	694	963
Gross accounts receivable – associates and joint ventures	15	25
Less: provision for doubtful accounts receivable	–5	–5
Total trade receivables – net	704	983
Reclassified to held for sale (see note 25)	–127	–303
Total as reported in the balance sheet	**577**	**680**

The following summarizes the movement in the provision for doubtful accounts receivable:

in CHF m	**2020**	2019
As per 1 January	–5	–5
Charged to the income statement	–8	–7
Amounts used	3	3
Unused amounts reversed	3	3
Exchange rate differences	2	1
At 31 December	**–5**	**–5**
Thereof reclassified to held for sale	—	–1

There is no concentration of credit risk with respect to trade receivables, as the Group has a large number of internationally dispersed customers.

The Group applies the IFRS 9 simplified approach to measuring expected credit losses, which uses a lifetime expected loss allowance for all trade receivables within stage 1 and 2. The estimated expected loss rates are based on historical credit losses and are adjusted to reflect current and forward-looking information on macroeconomic factors affecting the ability of the customers to settle the receivables. The Group recognizes impairment of trade receivables in »Selling, general and administrative costs« in the income statement.

The maximum credit risk on trade receivables is equal to their fair value.

Collaterals are only required in rare cases (2020: CHF 1 million, 2019: CHF 2 million).

The loss allowance for trade receivables as at 31 December 2020 and 2019 was determined as follows:

in CHF m	Current	30 - 60 days over-due	61 - 90 days over-due	More than 90 days overdue	Indi-vidu-ally im-paired	Total
31 December 2020						
Expected loss rate (in %)	0.29	5.65	9.81	14.38		
Gross carrying amount trade receivables	678	13	7	11	—	709
Loss allowance	**2**	**1**	**1**	**1**	**—**	**5**

in CHF m	Current	30 - 60 days over-due	61 - 90 days over-due	More than 90 days overdue	Indi-vidu-ally im-paired	Total
31 December 2019						
Expected loss rate (in %)	0.41	1.95	2.12	4.06		
Gross carrying amount trade receivables	948	18	9	13	—	988
Loss allowance	**3**	**—**	**—**	**2**	**—**	**5**

The carrying amounts of the Group's trade receivables are denominated in the following currencies:

in CHF m	**31.12.2020**	31.12.2019
EUR	252	337
USD	198	330
CNY	66	63
BRL	40	46
JPY	28	25
INR	40	36
Other	80	146
Total trade receivables – net	704	983
Reclassified to held for sale (see note 25)	–127	–303
Total as reported in the balance sheet	**577**	**680**

As of 31 December 2020, "Total trade receivables – net" include an amount of CHF 70 million (2019: CHF 110 million) that was past due, but not impaired. These related to a number of customers for whom there is no recent history of default.

13. Other current assets

Other current assets include the following:

in CHF m	**31.12.2020**	31.12.2019
Other receivables	255	275
Current financial assets	51	64
Prepaid expenses and accrued income	41	62
Total	**347**	**401**
Reclassified to held for sale (see note 25)	–35	–64
Total as reported in the balance sheet	**312**	**337**

Other receivables include, among others, staff loans, deposits, advances, VAT and sales tax receivables.

Other receivables are recognized at amortized cost in the balance sheet.

Current financial assets are mainly made up of notes receivable and short term loans. These are classified as loans and receivables and recognized at amortized cost in the balance sheet.

The book value of current financial assets equals their fair value. Other receivables and other current financial assets are also subject to the impairment requirements of IFRS 9. The identified impairment loss for other receivables was immaterial.

There was no impairment of current financial assets in 2020 and 2019.

Other receivables are denominated in the following currencies:

in CHF m	**31.12.2020**	31.12.2019
CHF	16	14
EUR	74	84
USD	8	12
JPY	3	3
BRL	20	28
CNY	16	11
INR	34	37
Other	84	86
Total	**255**	**275**
Thereof reclassified to held for sale	33	61

Current financial assets are denominated in the following currencies:

in CHF m	**31.12.2020**	31.12.2019
CHF	29	41
USD	5	6
CNY	17	16
Other	—	1
Total	**51**	**64**

The maximum exposure to credit risk of other current assets at the reporting date is their fair value.

14. Short-term deposits

Short-term deposits have an original maturity between 90 and 365 days. They are denominated in the following currencies:

in CHF m	**31.12.2020**	31.12.2019
EUR	0	130
CHF	80	0
USD	176	162
INR	11	12
Total	**267**	**304**

15. Cash and cash equivalents

in CHF m	**31.12.2020**	31.12.2019
Cash at bank and on hand	520	534
Short-term bank deposits	217	104
Total	**737**	**638**

Cash and cash equivalents are denominated in the following currencies:

in CHF m	**31.12.2020**	31.12.2019
EUR	141	173
USD	304	173
CHF	71	122
GBP	27	19
CNY	2	4
JPY	63	15
INR	48	48
BRL	8	7
Other	73	77
Total	**737**	**638**

In 2020 there were no short-term bank deposits in Swiss francs. In 2019 the effective average interest rate was -0.65 %. In 2019 these deposits had an average maturity of 34 days.

In 2020 there were no short-term bank deposits in euro. In 2019 the effective average annual interest rate was 0 %. In 2019 these deposits had an average maturity of 32 days.

The effective average annual interest rate on short-term bank deposits in US dollors was 0.34% (2019: 2.58%); these deposits have an average maturity of 21 days (2019: 30 days).

There were no material short-term bank deposits denominated in currencies other than the US dollar at the end of the reporting period.

The maximum exposure to credit risk on cash and cash equivalents is equal to their book value.

16. Cash Flow: Additional Information

for the years ended 31 December 2020 and 2019			**2020** in CHF m		2019 in CHF m
Non-cash income and expenses			**799**		**38**
Depreciation of property, plant and equipment and right-of-use assets	5, 7	212		258	
Impairment	28	11		—	
Amortization of intangible assets	6	57		72	
Impairment of working capital		26		21	
Income from associates and joint ventures	8	–63		–52	
Tax expense	10	174		140	
Net financial income and costs	29	66		85	
Gain/loss from disposals not qualifying as discontinued operations	26	–12		–2	
Gain on disposals of discontinued operations	25	–768		–48	
Other non-cash items		20		9	
Total non-cash income and expenses			**–277**		**483**
Changes in net working capital and provisions					
Changes in inventories			84		–13
Changes in trade receivables			47		–23
Changes in trade payables			–58		–19
Changes in other current assets and liabilities			–15		–66
Changes in provisions (excluding payments for restructuring)			–115		217
Total changes in net working capital and provisions			**–57**		**96**

17. Changes in share capital and treasury shares and changes in non-controlling interests

Registered shares each with a par value of CHF 3.70 (2019: CHF 3.70)	Number of shares 2020	Par value 2020 in CHF m	Number of shares 2019	Par value 2019 in CHF m
Share capital as per 1 January	**331 939 199**	**1 228**	**331 939 199**	**1 228**
Share capital at 31 December	**331 939 199**	**1 228**	**331 939 199**	**1 228**
Treasury shares	–2 385 509	–9	–2 586 765	–10
Outstanding share capital at 31 December	**329 553 690**	**1 219**	**329 352 434**	**1 218**

Treasury shares (number of shares)	2020	2019
Holdings as per 1 January	2 586 765	2 250 664
Shares purchased at market value	34 000	572 000
Shares transferred to employees	–235 256	–235 899
Holdings at 31 December	**2 385 509**	**2 586 765**

All shares are duly authorized and fully paid in.

Dividends are paid out as and when declared equally on all shares, excluding treasury shares. The information concerning payments per share to the shareholders are disclosed in the notes to the financial statements of Clariant Ltd.

In accordance with article 5 of the company's Articles of Incorporation, no limitations exist with regard to the registration of shares which are acquired in one's own name and on one's own account. Special rules exist for nominees.

In accordance with article 13 of the company's Articles of Incorporation, each share has the right to one vote.

Distribution to shareholders

On 29 June 2020 the Annual General Meeting of Clariant AG approved a distribution from the confirmed capital contribution reserves of CHF 2.385 and CHF 0.615 from retained earnings per share. This was paid out on 8 July 2020 reducing the capital contribution reserves by CHF 786 million and retained earnings by CHF 203 million.

Significant shareholders of 3 % or more of total share capital

Based on the notifications received by Clariant and published by SIX Exchange Regulation, as at 31 December 2020 the following shareholders held more than 3 % of voting rights in Clariant Ltd:

Shareholders	Voting rights
SABIC International Holdings B.V., Sittard, The Netherlands, controlled by the Public Investment Fund of Saudi Arabia (PIF), Riyadh, Kingdom of Saudi Arabia	32.22 % [1]
APG Asset Management N.V., Amsterdam, Netherlands	5.01 %
BlackRock Inc., New York, United States	3.8 %
Blue Beteiligungsgesellschaft mbH, Am Holzmaierfeld, 82064 Strasslach-Dingharting (Germany) and Maple Beteiligungsgesellschaft mbH, Am Holzmaierfeld, 82057 Icking (Germany) [2]	3.49 %

[1] SABIC acquired 24.99 % of the shares of Clariant Ltd on 17 September 2018, and increased its participation by 6.51 % to 31.5 % on 9 September 2020. The difference between this figure (i.e. 31.5 %) and the above-mentioned 32.22 % corresponds to the amount of treasury shares held by Clariant Ltd which have to be aggregated to the shares held by SABIC solely for regulatory disclosure purposes due to the Governance Agreement entered into by SABIC and Clariant on 17 September 2018.

[2] According to a disclosure notification published on 18 December 2018, a group consisting of Konstantin Winterstein, 80333 Munich, Germany, and Elisabeth Prinzessin zu Sayn-Wittgenstein, 80333 Munich, Germany, was formed.

Disclosure notifications during the financial year 2020 reported to the Stock Exchange Disclosure Office pursuant to Art. 120 of the Financial Markets Infrastructure Act (FMIA) as well as further information in relation to disclosure notifications can be found on the SIX Swiss Exchange reporting platform: www.six-exchange-regulation.com/en/home/publications/significant-shareholders.html

On 31 December 2019, the following shareholders held a participation of 3 % or more of the total share capital: SABIC International Holdings B.V., Sittard, The Netherlands, controlled by the Public Investment Fund of Saudi Arabia (PIF), Riyadh, Kingdom of Saudi Arabia 25.67 %; APG Asset Management N.V., Amsterdam, Netherlands: 5.01 %; Blue Beteiligungsgesellschaft mbH, Am Holzmaierfeld, 82064 Grossdingharting (Germany), and Maple Beteiligungsgesellschaft mbH, Am Holzmaierfeld, 82064 Grossdingharting (Germany): 3.49 %; Citadel Multi-Strategy Equities Master Fund Ltd., George Town, Cayman Islands, Citadel Securities Financial Trading (Ireland) DAC, Dublin, Ireland, Citadel Global Equities (Ireland) DAC, Dublin, Ireland, Citadel Global Equities Master Fund Ltd., George Town, Cayman Islands, Citadel Multi-Strategy Equities (Ireland) DAC, Dublin, Ireland, Citadel Quantitative Strategies Master Fund Ltd., George Town, Cayman Islands: 3.285 %; Millennium Partners LP, George Town, Cayman Islands Integrated Core Strategies Asia Pte.Ltd., Singapore: 3.04 %.

On 31 December 2020, Clariant AG itself held 2 385 509 shares in treasury, corresponding to 0.72 % of the share capital.

Non-controlling interests

At 31 December 2020, non-controlling interests reported are primarily made up of those of the four following companies. They amount to more than 91 % of the minority shares reported:

Clariant Huajin Catalysts (Panjin) Ltd, reported sales in the amount of CHF 27 million in the reporting period and total assets in the amount of CHF 44 million as per 31 December 2020. The non-controlling interests of 40 % of the shares outstanding is held by Northern Huajin Chemical Industry Group Co. Ltd.

Clariant Chemicals (India) Ltd reported sales in the amount of CHF 92 million in the reporting period and CHF 104 million of total assets as per 31 December 2020. The non-controlling interests of 49 % of the shares outstanding is traded on the Bombay Stock Exchange (BSE) in Mumbai.

Clariant Catalysts (Japan) K.K. reported sales in the amount of CHF 173 million in the reporting period and CHF 93 million of total assets as per 31 December 2020. The non-controlling interests of 38.6 % of the shares outstanding are held by Nissan Chemicals Industries Ltd.

Süd-Chemie India Ltd (SCIL) reported sales in the amount of CHF 171 million in the reporting period and total assets of CHF 199 million as per 31 December 2020, thereof current assets of CHF 114 million and non-currents assets of CHF 85 million. Total liabilities amounted to CHF 29 million, thereof current liabilities of CHF 22 million and non-current liabilities of CHF 7 million.

As per 31 December 2020 total equity amounted to CHF 170 million. The non-controlling interests of 50% of the shares outstanding are owned by private shareholders in India.

18. Non-current financial debts

in CHF m	Interest rate in %	Term	**Notional amount**	**Net amount 31.12.2020**	Net amount 31.12.2019
Certificate of indebtedness	mixed	2015–2020	150 EUR m	–	163
Certificate of indebtedness	1.012	2016-2020	157 EUR m	–	170
Certificate of indebtedness	6 m EURIBOR +1.05	2016-2020	55 EUR m	–	60
Certificate of indebtedness	0.779	2016-2021	55 EUR m	60	60
Certificate of indebtedness	3 m LIBOR +1.5	2016-2021	166 USD m	146	160
Certificate of indebtedness	2.618	2016-2021	111 USD m	97	107
Straight bond	3.500	2012-2022	175 CHF m	175	174
Certificate of indebtedness	mixed	2020-2022	115 EUR m	124	–
Certificate of indebtedness	3 m LIBOR +1.5	2020-2022	37 CHF m	37	–
Certificate of indebtedness	mixed	2015-2023	150 EUR m	161	163
Certificate of indebtedness	6 m EURIBOR +1.1	2016-2023	13 EUR m	14	14
Certificate of indebtedness	1.137	2016-2023	27 EUR m	29	29
Certificate of indebtedness	1.501	2016-2023	73 EUR m	79	80
Straight bond	2.125	2014-2024	160 CHF m	160	160
Certificate of indebtedness	1.194	2018-2024	92 EUR m	99	100
Certificate of indebtedness	1.548	2018-2025	102 EUR m	112	111
Certificate of indebtedness	6 m EURIBOR +0.95	2018-2025	54 EUR m	58	58
Certificate of indebtedness	2.010	2016-2026	15 EUR m	16	16
Straight bond	1.125	2019-2026	200 CHF m	200	200
Certificate of indebtedness	2.087	2018-2028	17 EUR m	18	18
Certificate of indebtedness	6m EURIBOR +1.9	2020-2025	83 EUR m	89	–
Certificate of indebtedness	3 m LIBOR +1.8	2020-2025	25 CHF m	25	–
Total straight bonds and certificates of indebtedness				**1 699**	**1 843**
Liabilities to banks and other financial institutions				**28**	**35**
Subtotal				**1 727**	**1 878**
Less: current portion (see note 23)				**–303**	**–393**
Total				**1 424**	**1 485**
Breakdown by maturity					
			2 021	–	327
			2 022	358	174
			2 023	283	286
			2 024	261	–
			after 2024 (2019: after 2023)	522	698
Total				**1 424**	**1 485**
Breakdown by currency			EUR	799	649
			CHF	603	541
			USD	–	267
			Others	22	28
Total				**1 424**	**1 485**
Fair value comparison (including current portion)					
Straight bonds				561	574
Certificates of indebtedness				1 164	1 309
Others				28	35
Total				**1 753**	**1 918**
Total net book value of assets pledged as collateral for financial debts				**–**	**15**
Total collateralized financial debts				–	7

On 22 May 2020, Clariant issued five certificates of indebtedness with the total amount of EUR 197.5 million and CHF 62.5 million. These certificates have terms of 2 years expiring on 23 May 2022 (EUR 114.5 million and CHF 37.5 million) and 5 years expiring on 22 May 2025 (EUR 83 million and CHF 25 million). While a tranche of CHF 62.5 million has a variable interest of 3 months CHF-LIBOR plus spread that ranges between 1.50 % and 1.80 % and a tranche in the amount of EUR 110.5 million has a variable interest rate of 6 months EURIBOR plus spread that ranges between 1.45 % and 1.90 %, the fixed interest rate is 1.45 % for a tranche in the amount of EUR 87 million.

On 15 April 2019 new bonds in the amount of CHF 200 million were launched with a term of 7 years and an interest rate of 1.125% p.a. fixed.

Valuation. Non-current financial debt is recognized initially at fair value, net of transaction costs incurred. Financial debt is subsequently stated at amortized cost. There are no long-term financial liabilities valued at fair value through profit and loss.

Fair values of straight bonds are determined by quoted market prices (level 1 in the fair value hierarchy).

Certificates of indebtedness and other financial debts are recorded at notional amounts, which are a reasonable approximation of the fair values.

Covenants. For the covenants please refer to note 3.1.3 Financial risk factors.

Exposure of the Group's borrowings to interest rate changes

- **Bonds:** the interest rates of all bonds are fixed.
- **Certificates of indebtedness:** the major part of the existing certificates of indebtedness has a fixed coupon.
- **Liabilities to banks and other financial institutions** mostly consisting of bank loans with fixed interest rates mainly.

Collateral. In 2020, no assets were pledged as collateral (2019: CHF 15 million).

19. Reconciliation of net debt

in CHF m	01.01.2020	Movements from the disposal	Movements in Cash flow	Exchange rate differences	Other non-cash movements	31.12.2020	Reclassified to held for sale (see note 25)	Total as reported in balance sheet
Cash and cash equivalents	638		126	–27	—	737	—	737
Short-term deposits	304		–34	–3	—	267	—	267
Financial instruments with positive fair values	4		1	—	—	5	—	5
Total cash and liquid investments	**946**	**—**	**93**	**–30**	**—**	**1 009**	**—**	**1 009**
Non-current financial debt	–1 485		–288	46	303	–1 424	—	–1 424
Current financial debt	–587	6	472	1	–303	–411	13	–398
Lease liabilities	–246	23	66	11	–68	–214	14	–200
Borrowings and other financial liabilities	**–2 318**	**29**	**250**	**58**	**–68**	**–2 049**	**27**	**–2 022**
Net debt	**–1 372**	**29**	**343**	**28**	**–68**	**–1 040**	**27**	**–1 013**

in CHF m	01.01.2019	Adoption of IFRS 16 (see note 7)	Movements in Cash flow	Exchange rate differences	Other non-cash movements	31.12.2019	Reclassified to held for sale (see note 25)	Total as reported in balance sheet
Cash and cash equivalents	833		–185	–10	—	638	—	638
Short-term deposits	26		283	–5	—	304	—	304
Financial instruments with positive fair values	7		–3	—	—	4	—	4
Total cash and liquid investments	**866**	**—**	**95**	**–15**	**—**	**946**	**—**	**946**
Non-current financial debt	–1 711		–208	41	393	–1 485	—	–1 485
Current financial debt	–529		310	25	–393	–587	—	–587
Lease liabilities	—	–249	70	6	–73	–246	29	–217
Borrowings and other financial liabilities	**–2 240**	**–249**	**172**	**72**	**–73**	**–2 318**	**29**	**–2 289**
Net debt	**–1 374**	**–249**	**267**	**57**	**–73**	**–1 372**	**29**	**–1 343**

20. Retirement benefit obligations

Apart from the legally required social security schemes, the Group has numerous independent retirement benefit plans. As a principle, assets are held externally. For certain Group companies however, no independent assets exist for the retirement benefit and other non-current employee benefit obligations. In these cases the related liability is included in the balance sheet as part of the non-current liabilities.

Defined benefit post-employment plans. Defined benefit pensions and termination plans cover the majority of the Group's employees. Future obligations and the corresponding assets of those plans considered as defined benefit plans under IAS 19 are reappraised annually and reassessed at least every three years by independent actuaries. Assets are valued at fair value.

Pension assets for funded defined benefit pension plans are managed according to local rules and legislation in each country.

The actual asset allocation is determined by current and expected economic and market conditions and in consideration of specific asset class risks in the risk profile. For this purpose Asset Liability Matching studies are conducted by third party experts on a regular basis to ensure that investment strategies for pension assets are in line with the structure of the plan members of the pension plan concerned.

In all countries with funded defined benefit plans the body governing the investment policy is constituted in accordance with local legal requirements. To the extent legally permitted Clariant Corporate exercises influence to ensure that the investment policy is set in a way to serve best the needs of the retirement benefit plan and its members.

The largest defined benefit plans are operated in Switzerland, the United Kingdom, the United States and Germany. These plans make up 95.2 % of the total defined benefit obligation.

The most important German plan is unfunded and covers the supplementary pension liabilities for plan members whose salaries exceed the level of the German mandatory social security coverage. Contributions are made primarily by the employer and vary depending on the salary level of the plan members. Benefits are paid out as annual pensions amounting to 20 % of total contributions. Lump sum payments to employees are possible to the extent of the voluntary contributions. For employees having joined or joining in 2011 and later there exists a funded retirement benefit plan. Contributions are primarily paid into the plan by the employer and vary depending on the income of the individual plan member. Employees contribute to the plan up to 2 % of pensionable earnings on a voluntary basis, to which the employer contributes an equal amount on top of the regular contributions. Pensions paid by this plan are principally based on the return on plan assets (contributions paid in plus interest), apart from a minimal interest. In addition there exists a smaller, similarly structured funded defined benefit plan for former employees of the Süd-Chemie group, acquired in 2011. All other pension liabilities regarding German staff members are covered by a funded multi-employer plan which is accounted for as a defined contribution plan.

The defined benefit obligation in the United Kingdom is a funded plan covering the retirement benefit liabilities of UK employees who joined the company before 31 December 2001 and was closed to further accruals in April 2016. All staff members are now covered by a defined contribution plan. The defined benefit pension plan is fully funded according to legal requirements. Yet, in view of the high number of non-active plan members, additional contributions may be necessary in future years.

In the United States Clariant operates a funded defined benefit pension plan covering the pension liabilities of employees who joined the company before 31 December 2000. Contributions are paid by the employer exclusively. Benefits are paid out as lifetime pensions determined on the basis of a final/career average calculation. Staff members who joined on 1 January 2001 or later are covered by a defined contribution plan. For members of Management whose annual salaries exceed the amount of CHF 275 000 an additional pension scheme is in place in the form of an unfunded defined benefit obligation, which covers the part exceeding this amount. The US pension plan is currently underfunded according to local legal requirements. Additional funding measures in the amount of up to CHF 46 million are scheduled over the next five years.

US employees transferred to Clariant with the Hoechst Specialty Chemicals business remain insured with Hoechst for their pension claims incurred prior to 30 June 1997.

In Switzerland, Clariant operates a funded defined benefit pension plan that covers the pension liabilities of all employees of the Swiss Clariant companies up to a salary level of CHF 200 000.
Both the employer and the employees contribute to the plan, the employer paying two thirds of the total contributions. The pension plan provides lifetime pensions determined based on cumulative savings of the individual plan member and converted into an annual pension at a fixed conversion rate. Lump sum payments are possible to up to 100 percent of the total individual cumulative savings.
The Swiss retirement benefit plan is marked by a shrinking operating basis, and as a result, an increasing share of retired members. Additional funding measures in the amount of CHF 13 million are therefore scheduled over the next five years.

For members of Management whose annual salaries exceed the amount of CHF 200 000, an additional pension scheme is in place in the form of a funded defined benefit obligation. Any shortfalls in funded provisions for pension commitments to members of the Executive Committee are accounted for as an unfunded defined benefit obligation.

Mortality tables
The following mortality tables were used to determine the defined pension obligation of the most important pension plans:

Switzerland	BVG 2015 generation table
Germany	Richttafeln 2018G by Prof. Dr. Klaus Heubeck
UK	SAPS S2 series amount tables (base table)
	CMI Model (2019) (future improvements)
USA	Pri 2012 mortality table with projection scale
	MP-2020

Post-employment medical benefits. The Group operates a number of post-employment medical benefit schemes in the United States, Canada and France. The method of accounting for the liabilities associated with these plans is largely equal to the one used for defined benefit pension schemes. These plans are not externally funded, but are recognized as provisions in the balance sheets of the Group companies concerned.

Expenses for net benefits are recorded in the same line and function in which the personnel costs are recorded.

Changes in the present value of defined benefit obligations are as follows:

in CHF m	Pension plans (funded and unfunded)		Post-employment medical benefits (unfunded)	
	2020	2019	**2020**	2019
As per 1 January	2 686	2 439	75	80
Current service cost	30	32	—	1
Past service cost/gain including curtailments	4	5	—	–2
Gain/loss on settlements	–2	1	—	—
Interest costs on obligation	29	50	2	3
Contributions to plan by employees	9	9	—	—
Benefits paid out to personnel in reporting period	–119	–117	–3	–4
Remeasurements:				
Actuarial gain/loss arising from changes in demographic assumptions	—	–14	–5	—
Actuarial gain/loss arising from changes in financial assumptions	75	297	5	9
Actuarial gain/loss due to experience adjustments	–28	32	–9	–8
Effect of disposals	–126	–4	–13	–2
Effect of liabilities extinguished on settlements	—	–14	—	—
Exchange rate differences	–61	–30	–4	–2
At 31 December	**2 497**	**2 686**	**48**	**75**

Changes in the fair value of plan assets are as follows:

in CHF m	**2020**	2019
As per 1 January	1 981	1 771
Interest income on plan assets	20	35
Contributions to plan by employees	9	9
Contributions to plan by employer	30	48
Benefits paid out to personnel in reporting period	–93	–91
Remeasurements:		
Return on plan assets (excluding amount included in interest expense)	124	219
Effect of assets distributed in settlements	—	–5
Effect of disposals	–85	–1
Exchange rate differences	–54	–4
At 31 December	**1 932**	**1 981**

As at 31 December 2020 and 2019, the pension plan assets did not include any directly held registered shares or bonds issued by Clariant Ltd.

The amounts recognized in the balance sheets are as follows:

in CHF m	Defined benefit pension plans		Post-employment medical benefits		Total	
	31.12.2020	31.12.2019	**31.12.2020**	31.12.2019	**31.12.2020**	31.12.2019
Present value of funded obligations	–1 894	–2 021	—	—	–1 894	–2 021
Fair value of plan assets	1 932	1 981	—	—	1 932	1 981
Overfunding/Deficit	**38**	**–40**	**—**	**—**	**38**	**–40**
Present value of unfunded obligations	–603	–665	–48	–75	–651	–740
Net liabilities, total	**–565**	**–705**	**–48**	**–75**	**–613**	**–780**
Reclassified to held for sale (see note 25)	38	148	2	—	40	148
Net liabilities in the balance sheet	**–527**	**–557**	**–46**	**–75**	**–573**	**–632**

Thereof recognized in:

in CHF m	**31.12.2020**	31.12.2019	**31.12.2020**	31.12.2019	**31.12.2020**	31.12.2019
Retirement benefit obligations	–622	–746	–48	–75	–670	–821
Reclassified to held for sale (see note 25)	38	148	2	—	40	148
Retirement benefit obligations in the balance sheet	**–584**	**–598**	**–46**	**–75**	**–630**	**–673**
Prepaid pension assets	57	41	—	—	57	41
Net liabilities in the balance sheet for defined benefit plans	**–527**	**–557**	**–46**	**–75**	**–573**	**–632**

The amounts recognized in the income statement and in other comprehensive income are as follows:

in CHF m	Defined benefit pension plans		Post-employment medical benefits		Total	
	2020	2019	**2020**	2019	**2020**	2019
Current service cost	–30	–32	—	–1	–30	–33
Net interest cost	–8	–15	–2	–3	–10	–18
Past service cost/gain including curtailments	–4	–5	—	2	–4	–3
Gain/loss on settlements	2	–1	—	—	2	–1
Components of defined benefit expense reported in the income statement	**–40**	**–53**	**–2**	**–2**	**–42**	**–55**
in CHF m						
Actuarial gain/loss arising from changes in demographic assumptions	—	14	5	—	5	14
Actuarial gain/loss arising from changes in financial assumptions	–75	–297	–5	–9	–80	–306
Actuarial gain/loss due to experience adjustments	28	–32	9	8	37	–24
Return on plan assets (excluding amount included in net interest expense)	124	219	—	—	124	219
Components of defined benefit expense reported in other comprehensive income	**77**	**–96**	**9**	**–1**	**86**	**–97**
Total defined benefit expense	**37**	**–149**	**7**	**–3**	**44**	**–152**

The fair value of the plan assets is split into the major assets categories as follows:

in CHF m	**31.12.2020**	31.12.2019
Equities	402	373
thereof based on quoted market prices	*399*	*369*
Bonds	614	583
thereof based on quoted market prices	*416*	*338*
Cash	56	138
thereof based on quoted market prices	*56*	*138*
Property	283	336
thereof based on quoted market prices	*204*	*268*
Alternative investments	577	551
thereof based on quoted market prices	*202*	*179*
Total fair value of plan assets	**1 932**	**1 981**

The principal actuarial assumptions at the balance sheet dates in percent are as follows:

		2020 in %					2019 in %				
		Group		**Most important countries**			**Group**		**Most important countries**		
		Weighted average	Switzer-land	United Kingdom	United States	Germany	Weighted average	Switzer-land	United Kingdom	United States	Germany
Discount rate		0.9	0.1	1.4	2.3	1.0	1.2	0.1	2.1	3.1	1.1
Future salary increases		1.8	1.5	—	3.5	2.5	1.8	1.5	—	3.5	2.5
Long-term increase in health care costs		5.1	—	—	6.1	—	5.6	—	—	6.4	—
Current average life expectancy for a 65 year old male	in years	19	23	22	20	20	19	22	22	21	20
Current average life expectancy for a 65 year old female	in years	22	25	24	22	24	21	23	24	23	24

A one percentage-point change in health care cost trend rates would have the following effects on the obligation for post-employment medical benefits:

2020 in CHF m	**One percentage point increase**	**One percentage point decrease**
Effect on the aggregate of the service cost and interest cost	1	–1
Effect on defined benefit obligation	5	–2

2019 in CHF m	**One percentage point increase**	**One percentage point decrease**
Effect on the aggregate of the service cost and interest cost	1	–1
Effect on defined benefit obligation	6	–5

A 25 basis-point change in discount rate would have the following effects on the obligation for pension plans:

in CHF m	25 basis point increase		25 basis point decrease	
	2020	2019	**2020**	2019
Effect on defined benefit obligation	–83	–92	86	97

If life expectancy increased by one year, the defined benefit obligation would increase by CHF 106 million (2019: CHF 92 million).

Defined contribution post-employment plans. In 2020, CHF 24 million were charged to the income statement as contributions to defined contribution plans (2019: CHF 28 million).

In Germany, approximately 4500 Clariant employees are insured in a defined benefit plan which is a multi-employer plan and as such is accounted for as a defined contribution plan. The reason for this accounting practice is that the plan exposes the participating Clariant companies to actuarial risks associated with the current and former employees of other companies which are members of the same pension plan. There is no consistent or reliable basis for allocating the obligation, plan assets and cost to individual companies participating in the plan.

Based on the statutory actuarial calculation of 2020, the pension fund's obligations are fully funded. Also for 2021 it is anticipated that the pension plan liabilities are covered by the respective assets.

In the case where the multi-employer plan faces a situation in which the pension plan liabilities exceed the assets, this can be remedied either by increasing the employer's contributions to the pension plan or by reducing the benefits paid out to the entitled parties. In the case of a reduction of the benefits this must be compensated by the employer according to German legislation. If the pension plan were unwound the remaining funds would be distributed among the plan members. In case there are no plan members left, the remaining funds would be transferred to social institutions.

If Clariant withdrew from the pension fund, all rights and obligations of the employer against the pension plan would remain in force as long as the pension plan continues to render pension services to the group's plan members. Based on the number of plan members (active and passive) Clariant's share in the pension plan amounts to approximately 7 percent.

Clariant's contribution to this pension plan amounted to CHF 17 million in 2020 (CHF 20 million in 2019) and is expected to be CHF 17 million in 2021.

The multi-employer plan originates in the pension plan scheme of the German companies of the former Hoechst Group, to which a part of the activities of Clariant pertained until 1997. Several of the companies which were formerly part of the Hoechst Group continue to participate in this multi-employer plan.

in CHF m	Pension plans		Post-employment medical benefits	
	2020	2019	**2020**	2019
Clariant Group regular and supplemental contributions (employer's contributions):				
Actual contributions in 2019		48		—
Actual contributions in 2020 (2019: estimated)	30	36	—	—
Estimated contributions in 2021	25	36	—	—
Estimated contributions in 2022	25	36	—	—
Estimated contributions in 2023	25	36	—	—
Estimated contributions in 2024	25	31	—	—
Estimated contributions in 2025	22		—	—
Payments to beneficiaries:				
Actual payments in 2019		–117		–4
Actual payments in 2020 (2019: estimated)	–119	–156	–3	–5
Estimated payments in 2021	–113	–140	–3	–5
Estimated payments in 2022	–110	–141	–3	–5
Estimated payments in 2023	–109	–151	–3	–5
Estimated payments in 2024	–110	–161	–4	–6
Estimated payments in 2025	–112	—	–3	—
Allocation of defined benefit obligation to plan members (in CHF m):				
Active members	636	766	13	29
Deferred members	334	316	2	5
Retired members	1 527	1 604	33	41
Total funded and unfunded obligations at 31 December	**2 497**	**2 686**	**48**	**75**
Weighted average duration of the defined benefit obligation at the end of reporting period (in years):				
At 31 December	14.1	13.2	10.0	10.8

21. Movements in provisions

in CHF m	Environmental provisions	Personnel provisions	Restructuring provisions	Other provisions	**Total provisions 2020**	Total provisions 2019
As per 1 January	111	130	16	300	557	396
Additions	25	185	146	121	477	499
Effect of business combinations (see note 27)	1	—	—	—	1	—
Disposals	—	—	—	—	—	–1
Reclassified to/ from held for sale (see note 25)	3	2	–11	1	–5	–52
Amounts used	–13	–130	–25	–212	–380	–216
Unused amounts reversed	–13	–42	–6	–87	–148	–52
Changes due to the passage of time and changes in discount rates	3	—	—	—	3	4
Exchange rate differences	–9	–8	–1	–7	–25	–21
At 31 December	**108**	**137**	**119**	**116**	**480**	**557**
Of which						
– Current portion	21	96	94	67	278	393
– Non-current portion	87	41	25	49	202	164
Total provisions	**108**	**137**	**119**	**116**	**480**	**557**
Expected outflow of resources						
Within 1 year	21	96	94	67	278	393
Between 1 and 3 years	26	9	24	15	74	58
Between 3 and 5 years	20	1	1	22	44	22
Over 5 years	41	31	—	12	84	84
Total provisions	**108**	**137**	**119**	**116**	**480**	**557**

Environmental provisions. Provisions for environmental liabilities are made when there is a legal or constructive obligation for the Group which will result in an outflow of economic resources. It is difficult to estimate the action required by Clariant in the future to correct the effects on the environment of prior disposals or release of chemical substances by Clariant or other parties and the associated costs, pursuant to environmental laws and regulations.

The material components of the environmental provisions consist of the costs to fully clean and refurbish contaminated sites and to treat and contain contamination at sites where the environmental exposure is less severe. The Group's future remediation expenses are affected by a number of uncertainties which include, but are not limited to, the method and extent of remediation and the percentage of material attributable to Clariant at the remediation sites relative to that attributable to other parties.

The environmental provisions reported in the balance sheet concern a number of different obligations, mainly in Germany, Brazil, the United States and Switzerland.

Provisions are made for remedial work where there is an obligation to remedy environmental damage, as well as for containment work where required by environmental regulations. All provisions relate to environmental liabilities arising in connection with activities that occurred prior to the date when Clariant took control of the relevant site. At each balance sheet date, Clariant critically reviews all provisions and makes adjustments where required.

Personnel provisions. Personnel provisions include holiday entitlements, compensated absences such as sabbatical leave, jubilee, annual leave or other long-service benefits, profit sharing and bonuses. Such provisions are established in proportion to the services rendered by the employee concerned.

Restructuring provisions. Restructuring provisions are established where there is a legal or constructive obligation for the Group that will result in the outflow of economic resources. The term restructuring refers to the activities that have as a consequence staff redundancies and the shutdown of production lines or entire sites. When the Group has approved a formal plan and has either started to implement the plan or announced its main features to the parties concerned and to the public, a restructuring provision is created. The restructuring provisions newly added in 2020 concern site closures and headcount reductions in various countries with the largest amounts incurred in Germany, Switzerland and United States. For further information regarding restructuring measures refer to note 28.

Other provisions. Additionally, other provisions include provisions for obligations relating to tax (other than income tax) and legal cases and other items in various countries for which the amount can be reliably estimated.

In 2017 the European Commission (Antitrust) initiated an investigation on Clariant and some of its competitors active in the ethylene purchasing sector in some members states. Based on the information then available and the resulting assessment of the expected outcome of the investigation Clariant set up a provision of CHF 231 million for this case in 2019. The final verdict in July 2020 resulted in a fine in the amount of EUR 156 million. As a consequence CHF 55 million of the provision were reversed and the liability was settled in December 2020.

All non-current provisions are discounted to reflect the time value of money where material. Discount rates reflect current market assessments of the time value of money and the risk specific to the provisions in the respective countries.

22. Trade payables and other liabilities

in CHF m	**31.12.2020**	31.12.2019
Trade payables	539	704
Contract liabilities	68	73
Payables to associates and joint ventures	51	54
Accruals	164	199
Other liabilities	187	243
Total trade payables and other liabilities	**1 009**	**1 273**
Reclassified to non-current liabilities	–60	–68
Reclassified to held for sale (see note 25)	–132	–330
Total as reported in the balance sheet	**817**	**875**

The amount recognized for trade payables is equal to their fair value.

Contract liabilities are short term and will be recognized as revenues in the next reporting period.

23. Current financial debts

in CHF m	**31.12.2020**	31.12.2019
Banks and other financial institutions	108	194
Current portion of non-current financial debts (see note 18)	303	393
Total	**411**	**587**
Reclassified to held for sale (see note 25)	–13	–
Total current financial debts as reported in the balance sheet	**398**	**587**
Breakdown by maturity:		
in CHF m	**31.12.2020**	31.12.2019
Up to three months after the balance sheet date	98	166
Three to six months after the balance sheet date	1	176
Six to twelve months after the balance sheet date	312	245
Total	**411**	**587**
Reclassified to held for sale (see note 25)	–13	–
Total current financial debts as reported in the balance sheet	**398**	**587**

On 17 April 2020, the certificates of indebtedness issued in 2015 in the amount of EUR 150 million (CHF 162 million) reached maturity and were repaid.

On 26 October 2020 certificates of indebtedness in the amount of EUR 212 million (CHF 229 million) reached maturity and were repaid.

On 24 April 2019 a bond issued in 2012 in the amount of CHF 285 million reached maturity and was repaid.

One certificate of indebtness issued in 2016 with a nominal value of EUR 55 million and two certificates of indebtness issued in 2016 with a nominal value of USD 277 million will mature in 2021 and were therefore reclassified to current financial debts.

Current financial debt is recognized initially at fair value, net of transaction costs incurred. Financial debt is subsequently stated at amortized cost. Except for derivatives, there are no current financial liabilities valued at fair value through profit and loss.

The fair value of financial debt at banks and other financial institutions approximates its carrying amount due to the short-term nature of these instruments.

24. Segment information

In 2019 Clariant set out to rearrange its portfolio of business activities. In October 2019 Clariant sold its business line Healthcare Packaging, operated as a part of the Business Unit Masterbatches to US-based Arsenal Capital Partners. In July 2020 the Business Unit Masterbatches was sold to the US-based group Avient. The project to sell the business unit Pigments is under way. For these reasons all these business units are reported as discontinued operations in the financial report (see also note 25 Discontinued Operations and assets held for sale). Intersegment transactions are entered into under the normal circumstances, terms and conditions that would also be available to unrelated third parties.

Segment assets consist of property, plant and equipment, goodwill, intangible assets, inventories, receivables and investments in associates. They exclude deferred tax assets, financial assets and operating cash. Segment liabilities comprise trade payables. They exclude items such as tax liabilities, provisions, pension liabilities and corporate borrowings. Capital expenditure comprises additions to property, plant and equipment and intangibles.

SEGMENTS

in CHF m	Care Chemicals		Catalysis		Natural Resources		Corporate		Total Group	
	2020	2019	**2020**	2019	**2020**	2019	**2020**	2019	**2020**	2019
Segment sales	1 423	1 615	879	925	1 581	1 894	—	—	3 883	4 434
Sales to other segments	–12	–15	—	—	–11	–20	—	—	–23	–35
Total sales from continuing operations	**1 411**	**1 600**	**879**	**925**	**1 570**	**1 874**	**—**	**—**	**3 860**	**4 399**
Operating expenses	–1 212	–1 389	–784	–785	–1 448	–1 666	–118	–394	–3 562	–4 234
Thereof:										
Income from associates and joint ventures	26	16	9	11	8	7	–1	–1	42	33
Gain/loss from disposals not qualifying as discontinued operations	12	—	—	–1	—	—	—	3	12	2
Restructuring, impairment and transaction-related costs	–19	–3	–13	–5	–33	–3	–54	–39	–119	–50
Provision for EU investigation							55	–231	55	–231
Operating income	**199**	**211**	**95**	**140**	**122**	**208**	**–118**	**–394**	**298**	**165**
Net financial expenses and taxes									–182	–199
Net result from continuing operations									**116**	**–34**
Result from discontinued operations									683	72
Net income									**799**	**38**
Segment assets	1 035	1 160	1 599	1 722	1 388	1 571	—	—	4 022	4 453
Segment liabilities	–180	–218	–164	–152	–172	–194	—	—	–516	–564
Net operating assets	**855**	**942**	**1 435**	**1 570**	**1 216**	**1 377**	**—**	**—**	**3 506**	**3 889**
Segment assets reported as assets held for sale	—	—	108	5	2	—			110	5
Corporate assets reported as assets held for sale							4	2	4	2
Segment assets of discontinued operations reported as assets held for sale									683	1 298
Assets held for sale	**—**	**—**	**108**	**5**	**2**	**—**	**4**	**2**	**797**	**1 305**
Segment liabilities of discontinued operations reported as liabilities associated with assets held for sale									–263	–559
Liabilities directly associated with assets held for sale									**–263**	**–559**
Corporate assets without cash							1 105	1 275	1 105	1 275
Corporate liabilities without financial liabilities							–1 751	–1 890	–1 751	–1 890
Net debt (see note 19)							–1 013	–1 343	–1 013	–1 343
Total net assets	**855**	**942**	**1 543**	**1 575**	**1 218**	**1 377**	**–1 655**	**–1 956**	**2 381**	**2 677**
Thereof:										
Investments in PPE and intangibles for the period	53	68	141	81	56	78	24	13	274	240
Investments in associates and joint ventures at the end of the period	85	91	—	108	63	46	5	3	153	248
Reconciliation of key figures										
Operating income	199	211	95	140	122	208	–118	–394	298	165
Add: systematic depreciation of PPE	52	54	50	52	45	50	15	19	162	175
Add: impairment	—	—	3	—	7	—	1	—	11	—
Add: depreciation of RoU assets	9	10	6	5	19	21	16	18	50	54
Add: amortization of intangible assets	7	7	14	15	25	26	11	19	57	67
EBITDA[1]	**267**	**282**	**168**	**212**	**218**	**305**	**–75**	**–338**	**578**	**461**
Add: restructuring, impairment and transaction-related costs	19	3	13	5	33	3	54	39	119	50
Add: Provision for EU investigation							–55	231	–55	231
Less: impairment	—	—	–3	—	–7	—	–1	—	–11	—
Less: gain/loss from disposals not qualifying as discontinued operations	–12	—	—	1	—	—	—	–3	–12	–2
Adjusted EBITDA	**274**	**285**	**178**	**218**	**244**	**308**	**–77**	**–71**	**619**	**740**
Operating income	199	211	95	140	122	208	–118	–394	298	165
Add: restructuring, impairment and transaction-related costs	19	3	13	5	33	3	54	39	119	50
Add: Provision for EU investigation							–55	231	–55	231
Less: gain/loss from disposals not qualifying as discontinued operations	–12	—	—	1	—	—	—	–3	–12	–2
Adjusted operating income	**206**	**214**	**108**	**146**	**155**	**211**	**–119**	**–127**	**350**	**444**

[1] EBITDA is earning before interest, tax, depreciation and amortization.

Reconciliation of segment assets to total assets in CHF m	**31.12.2020**	31.12.2019
Segment assets	4 022	4 453
Segment assets reported as assets held for sale	110	5
Corporate assets reported as assets held for sale	4	2
Segment assets of discontinued operations reported as assets held for sale	683	1 298
Corporate assets without cash	1 105	1 275
Cash and cash equivalents	737	638
Short-term deposits	267	304
Financial instruments with positive fair values	5	4
Total Assets	**6 933**	**7 979**

in CHF m	Sales[1]		Non-current assets [2]	
	2020	2019	**31.12.2020**	31.12.2019
EMEA	1 572	1 826	1 854	1 962
of which Germany	*432*	*507*	*1 138*	*1 264*
of which Switzerland	*24*	*23*	*378*	*431*
of which MEA	*274*	*338*	*21*	*25*
North America	703	862	895	1 031
of which USA	*656*	*802*	*882*	*1 015*
Latin America	457	556	140	178
of which Brazil	*191*	*234*	*75*	*106*
Asia / Pacific	1 128	1 155	536	513
of which China	*402*	*399*	*216*	*151*
of which India	*168*	*134*	*123*	*149*
Total	**3 860**	**4 399**	**3 425**	**3 684**

[1] Allocated by region of third-party sale's destination. Continuing operations

[2] Non-current assets excluding deferred tax assets and pension plan assets.

All of the Group's segments generate their revenues to the largest extent from the sale of products. These come in such a great variety that a meaningful grouping below the segment information is not possible.

Revenue from services recognized in 2020 amounted to CHF 83 million (2019: CHF 100 million) and mostly were incurred in Business Area Natural Resources.

For a description of the Business Units see note 1.25.

25. Discontinued operations and assets held for sale

In 2019 Clariant announced its intention to sell the Business Units Pigments and Masterbatches and the Business Line Healthcare Packaging, which operated as a part of the Business Unit Masterbatches. As a result these activities were reclassified to discontinued operations in June 2019. Income and expenses of the activities concerned have been reclassified to "Discontinued operations" in the consolidated income statement and the assets and liabilities pertaining to these activities have been reclassified to "Assets held for sale" and "Liabilities directly associated with assets held for sale" in the consolidated balance sheet, according to IFRS 5, Non-current assets held for sale and discontinued operations.

On 31 October 2019, Clariant sold its Healthcare Packaging business to Arsenal Capital Partners, a private equity firm located in New York, USA. The final total consideration of the sale amounted to CHF 312 million including CHF 2 million received in 2020 and the after tax gain to CHF 54 million.

On 1 July 2020, Clariant sold the business unit Masterbatches to the US-based group Avient. The total consideration of the sale net of cash transferred amounted to CHF 1 308 million and the after tax gain to CHF 723 million.

Clariant considers it highly probable that the Business Unit Pigments will be sold within the next twelve months.

For a description of the Business Units please refer to note 1.25.

Other assets held for sale

An amount of CHF 6 million relates to property, plant and equipment held for sale in Italy and in United States (2019: CHF 7 million) and CHF 108 million a shareholding valued at equity in the US.

DISCONTINUED OPERATIONS in CHF m	Plastics & Coatings (discontinued) [1]		Corporate		Total discontinued operations	
	2020	2019	**2020**	2019	**2020**	2019
Sales	1 330	2 127	—	—	1 330	2 127
Operating expenses	–1 189	–1 968	–69	–92	–1 258	–2 060
Income from associates and joint ventures	21	19	—	—	21	19
Restructuring (see note 28)	–23	–10	–69	—	–92	–10
Operating result	**139**	**168**	**–138**	**–92**	**1**	**76**
Financial result					–8	–17
Result from discontinued operations before taxes					**–7**	**59**
Taxes					–36	–38
Result from discontinued operations after taxes					**–43**	**21**
Gain on the disposal of discontinued operations	768	48			768	48
Taxes (current and deferred)	–42	3			–42	3
Net result from discontinued operations					**683**	**72**
Currency translation differences of discontinued operations					50	–39
Other items					20	6
Other comprehensive income/loss from discontinued operations	**—**	**—**	**—**	**—**	**70**	**–33**
Operating cash flows	154	107	–62	–12	92	95
thereof: payments for restructuring	–7	–8			–7	–8
Investing cash flows	–25	–49			–25	–49
Total cash flow	**129**	**58**	**–62**	**–12**	**67**	**46**
Cash flow from disposals:						
Gross proceeds	1 450	310			1 450	310
Less cash and cash equivalents transferred	–140	–15			–140	–15
Less refund transaction cost to buyer	–5	—			–5	—
Net proceeds from disposal	**1 305**	**295**	**—**	**—**	**1 305**	**295**
Net assets held for sale:						
Property, plant and equipment	174	370			174	370
Right-of-use assets	17	34			17	34
Intangible assets	31	85			31	85
Investments in associates and joint ventures	84	101			84	101
Deferred and Income tax assets	29	22			29	22
Inventories	186	319			186	319
Trade receivables	127	303			127	303
Other assets	35	64			35	64
Total assets held for sale	**683**	**1 298**	**—**	**—**	**683**	**1 298**
Trade payables and other liabilities	–132	–330			–132	–330
Retirement benefit obligations	–40	–148			–40	–148
Provisions	–64	–52			–64	–52
Lease liabilities	–14	–29			–14	–29
Current financial debts	–13	—			–13	—
Total liabilities directly associated with assets held for sale	**–263**	**–559**	**—**	**—**	**–263**	**–559**
Total net assets held for sale	**420**	**739**	**—**	**—**	**420**	**739**

[1] Including the business unit Pigments for 12 months in both 2020 and 2019, the business unit Masterbatches for 6 months in 2020 and 12 months in 2019 and the business line Healthcare Packaging for 10 months in 2019.

Cumulative exchange rate differences recognized in equity for discontinued operations amounted to CHF 92 million on 31 December 2020.

Healthcare Packaging

In October 2019 Clariant sold the business line Healthcare Packaging. The results of these disposal was as follows:

in CHF m	2020	2019
Total cash proceeds received	2	310
Less cash and cash equivalents transferred	—	–15
Total consideration for the sale	**2**	**295**
Net assets sold including disposal related expenses	1	–232
Gain on the disposal from discontinued operations	**3**	**63**
Effect of the reclassification of foreign exchange differences related to the disposal of discontinued operations	—	–15
Gain on the disposal from discontinued operations before taxes	**3**	**48**
Taxes (current and deferred)	—	3
Gain on the disposal from discontinued operations after taxes	**3**	**51**

Masterbatches

In July 2020 Clariant sold the business unit Masterbatches to the US-based group Avient. The result of this disposal was as follows:

in CHF m	2020
Purchase price consideration	1448
Less cash and cash equivalents transferred	-140
Total consideration for the sale	**1308**
Net assets sold including disposal related expenses	-411
Gain on the disposal from discontinued operations	**897**
Effect of the reclassification of foreign exchange differences related to the disposal of discontinued operations	-132
Gain on the disposal from discontinued operations before taxes	**765**
Taxes (current and deferred)	-42
Gain on the disposal from discontinued operations after taxes	**723**

26. Disposals

Activities not qualifying as discontinued operations

In this section, disposals of subsidiaries, associates and activities are reported that do not qualify as discontinued operations in the sense of IFRS 5. The following disposals took place in 2020 and 2019:

On 7 August 2020 Clariant sold its Sulfonation production in Santa Clara, Mexico pertaining to the Business Unit ICS for a net consideration of CHF 13 million and resulting in a gain of CHF 12 million to the Mexico-based company Stepan Mexico. S.A. de C.V.

On 30 April 2019 Clariant sold its 25% stake of GTC associates in the United States for a net consideration of CHF 8 million and a net loss of CHF 1 million to the Swiss group Sulzer.

27. Acquisitions

Bentonite mining activities

In August 2020 Clariant acquired from Jianping Cimco Mining Co. Ltd, China the activities of Clay Industrial Minerals Co Ltd by way of an asset deal for a consideration of CHF 9 million. The acquisition included a goodwill of CHF 2 million. The purpose of the transaction is to secure longer-term access to clay and to strengthen the Business Unit Functional Mineral's foothold and the Group's position in the Chinese Foundry market.

28. Restructuring, impairment and transaction-related costs

in CHF m	2020	2019
Restructuring expenses	**–141**	**–14**
Payments for restructuring	–25	–29
Impairment loss	**–11**	**—**
thereof charged to PPE (see note 5)	–11	—
Transaction-related costs	**–106**	**–129**
Total restructuring, impairment and transaction-related costs	**–258**	**–143**
thereof reported under discontinued operations	–139	–93
Total continuing operations	**–119**	**–50**

In order to increase profitability over a sustained period, Clariant implements measures designed to improve the Group's performance. The aim of these efforts is to increase the Group's operating result and to reduce net working capital. The changes made to the processes and structures result in a reduction of headcount across the Group.

Restructuring. In 2020, Clariant recorded expenses for restructuring in the amount of CHF 141 million (2019: CHF 14 million).

As a result of the most recent economic developments, Clariant has decided to resume its efficiency program. Measures to increase efficiency have been defined, leading to a work force reduction of approximately 600 positions and a reduction of the cost basis in excess of CHF 50 million for the continuing operations over the next two years. Additional measures are implemented to rightsize regional organizations and service units to the reduced size of the Group to avoid remnant costs post the expiration of transitory service agreements following the closing of the divestitures of the Masterbatches and Pigments businesses. The rightsizing program foresees a reduction or transfer of approx. 1,000 positions in service and regional structures. An efficiency program was also launched for the Pigments business to reduce above 200 positions and the cost basis enhancing the intrinsic value of the business. Restructuring expenses for the efficiency program for continuing operations has been booked in the amount of CHF 49 million and in the Business Areas as follows: CHF 12 million to Care Chemicals, CHF 6 million to Catalysis, CHF 19 million to Natural Resources and CHF 12 million to Corporate. In addition in Discontinued Operations, restructuring expenses for the efficiency program has been booked for the Pigments business in the amount of CHF 24 million. For the rightsizing program, restructuring expenses in amount of CHF 68 million has been booked in discontinued operations.

Impairment. The impaiment losses recorded in 2020 concerned mainly properties, plants and equipment in USA, Germany and China. No impairment loss was recorded in 2019.

Transaction-related costs comprise expenses incurred in connection with acquisition or disposal projects and also costs incurred in connection with the implementation of internal reorganizational measures.

The total amount pertaining to continuing operations of CHF 119 million of Restructuring, impairment and transaction-related costs (2019: CHF 50 million) is reported in the income statement from continuing operations as follows: CHF 31 million in Cost of goods sold (2019: CHF 9 million), CHF 75 million in Selling, general and administrative costs (2019: CHF 43 million), CHF 13 million in Research & Development costs (2019: CHF 2 million income).

29. Finance income and costs

FINANCE INCOME		
in CHF m	**2020**	2019
Interest income	13	15
thereof interest on loans, receivables and deposits	*13*	*15*
Other financial income	2	8
Total finance income	**15**	**23**

FINANCE COSTS		
in CHF m	**2020**	2019
Interest expense	–72	–96
thereof effect of discounting of non-current provisions	*–4*	*–4*
thereof net interest component of pension provisions	*–10*	*–18*
thereof interest on lease liabilities	*–11*	*–12*
Other financial expenses	–9	–12
Total finance costs before currency result	**–81**	**–108**
Currency result, net	–28	–26
Total finance costs	**–109**	**–134**
thereof reported under discontinued operations	–8	–17
Total continuing operations	**–101**	**–117**

Other financial expenses include bank charges and miscellaneous financial expenses.

In 2020 and 2019, no foreign exchange gains pertaining to the ineffective part of hedges on net investments were recognized in the income statement.

Interest expense, other than the effect of discounting non-current provisions and the interest component of pension provisions, pertain to financial debts measured at amortized cost.

Interest costs capitalized on qualifying assets for 2020 were CHF 1 million (2019: CHF 1 million).

30. Earnings per share (EPS)

Earnings per share are calculated by dividing the Group net income by the average number of outstanding shares (issued shares less treasury shares).

	2020	2019
Net income/ loss attributable to shareholders of Clariant Ltd undiluted and diluted in CHF m		
Continuing operations	92	–57
Discontinued operations	666	67
Total	**758**	**10**
Weighted average number of shares outstanding		
As per 1 January	329 594 997	329 613 975
Effect of transactions with treasury shares on weighted average number of shares outstanding	–77 353	–18 978
Weighted average number of shares outstanding at 31 December	**329 517 644**	**329 594 997**
Adjustment for granted Clariant shares	1 507 123	882 428
Weighted average diluted number of shares outstanding at 31 December	**331 024 767**	**330 477 425**
Basic earnings/ loss per share attributable to shareholders of Clariant Ltd (CHF/share)		
Continuing operations	0.28	–0.17
Discontinued operations	2.02	0.20
Total	**2.30**	**0.03**
Diluted earnings/ loss per share attributable to shareholders of Clariant Ltd (CHF/share)		
Continuing operations	0.28	–0.17
Discontinued operations	2.01	0.20
Total	**2.29**	**0.03**

The dilution effect is triggered by the effect of Clariant shares granted as part of the share-based payment plan, which have not yet vested. To calculate this dilutive potential, it is assumed that they vested on January 1 of the respective period.
The effect of the services still to be rendered during the vesting period were taken into consideration.

Diluted earnings/losses per share are calculated adjusting the weighted average number of ordinary shares outstanding to assume conversion of all dilutive potential ordinary shares.

In 2020, a distribution of CHF 3.00 per share was made out of the capital contribution reserves and retained earnings (see note 17).

31. Derivative financial instruments

Risk management (hedging) instruments and off-balance sheet risks. Clariant uses forward foreign exchange rate and option contracts, currency options as well as other financial instruments to hedge the Group's risk exposure to volatility in interest rates, currencies and prices and to manage the return on cash and cash equivalents. Risk exposures from existing assets and liabilities as well as anticipated transactions are managed centrally.

Interest rate management. It is the Group's policy to manage the costs of interest using fixed and variable rate debt and interest-related derivatives.

Foreign exchange management. To manage the exposure to the fluctuations in foreign currency exchange rates, the Group follows a strategy of hedging both balance sheet and revenue risk, partially through the use of forward contracts and currency swaps in various currencies. In order to contain costs, the Group does not hedge the entire exposure.

The following tables show the contract or underlying principal amounts and the respective fair value of derivative financial instruments by type at the year-end.

The contract or underlying principal amounts indicate the volume of business outstanding at the balance sheet date and do not represent the amount at risk.

DERIVATIVE FINANCIAL INSTRUMENTS

in CHF m	Contract or underlying principal amount		Positive fair values		Negative fair values	
	31.12.2020	31.12.2019	**31.12.2020**	31.12.2019	**31.12.2020**	31.12.2019
Interest rate related instruments						
Interest rate swaps	146	160	—	2	–1	—
Cross Currency Swaps	165	165		—	–6	–6
Currency related instruments						
Forward foreign exchange rate contracts	274	212	5	2	–1	–1
Total derivative financial instruments	**585**	**537**	**5**	**4**	**–8**	**–7**

The fair value of these derivative financial instruments is recorded in Other current assets in the balance sheet in the case of a positive value or in Current financial debts in the case of a negative value and if the instruments expire within the next twelve months.

If the remaining lifetime exceeds twelve months, the value is recorded in Financial assets in case it is positive and in Non-current financial debts in case it is negative.

DERIVATIVE FINANCIAL INSTRUMENTS BY MATURITY

in CHF m		
	31.12.2020	31.12.2019
Breakdown by maturity:		
Up to one month after the balance sheet date	100	18
More than one and up to three months after the balance sheet date	37	31
More than three and up to twelve months after the balance sheet date	283	163
More than one and up to five years after the balance sheet date	165	325
Total derivative financial instruments	**585**	**537**

DERIVATIVE FINANCIAL INSTRUMENTS BY CURRENCY

in CHF m	**31.12.2020**	31.12.2019
USD	361	367
EUR	164	164
JPY	44	6
Others	16	—
Total derivative financial instruments	**585**	**537**

FINANCIAL INSTRUMENTS EFFECTIVE FOR HEDGE-ACCOUNTING PURPOSES

in CHF m	**31.12.2020**	31.12.2019
Interest rate swaps	**—**	**2**
Notional amount (USD)	146	160
Maturity date	05.08.2021	05.08.2021
Hedge ratio	1:1	1:1
Change in fair value of hedging instruments since 1st January	–2	–4
Change in fair value of hedged item	2	4
Cross Currency Swaps	**–2**	**–2**
Notional amount (EUR)	56	56
Maturity date	25.03.2024	25.03.2024
Hedge ratio	1:1	1:1
Change in fair value since 1 January	—	–2
Change in fair value of hedged item	—	2
Cross Currency Swaps	**–4**	**–4**
Notional amount (EUR)	116	116
Maturity date	25.09.2025	25.09.2025
Hedge ratio	1:1	1:1
Change in fair value since 1 January	—	–3
Change in fair value of hedged item	—	3
Notional amount of hedges of net investments in foreign entities:		
Borrowings denominated in foreign currencies	–937	–973
EUR amount	–694	–706
USD amount	–243	–267
Hedge Ratio	1:1	1:1

In 2015, Clariant issued four certificates of indebtedness amounting to EUR 300 million (see note 18). EUR 150 million were paid back in 2020. As per 31 December 2020 EUR 150 million were designated as a hedge of a net investment in some of Clariant's European subsidiaries. The unrealized foreign exchange rate gain resulting from the translation of these certificates of indebtedness into Swiss francs amounted to CHF 0.7 million for 2020 (2019: CHF 11 million gain) and is recorded in the cumulative translation difference in shareholders' equity.

In 2016, Clariant issued seven certificates of indebtedness amounting to EUR 395 million and two certificates of indebtedness amounting to USD 277 million (see note 18). As per 1 January 2019 EUR 55.5 million of these certificates of indebtedness were dedesignated. EUR 156.5 million were paid back in 2020. As per 31 December 2020 EUR 238.5 million of these certificates were designated as a hedge of a net investment in some of Clariant's European subsidiaries and USD 277 million in some US-American subsidiaries. The unrealized foreign exchange rate result calculated from the translation of these certificates of indebtedness into Swiss francs amounted to a gain of CHF 0.8 million (2019: CHF 14 million gain) for the EUR positions and to a gain of CHF 23 million (2019: CHF 5 million gain) for the USD positions and is recorded in the cumulative translation difference in shareholders' equity.

In 2018, Clariant issued four certificates of indebtedness amounting to EUR 265 million (see note 18). EUR 112.5 million of these certificates were designated as a hedge of a net investment in some of Clariant's European subsidiaries. The rest of EUR 152.5 million were exchanged with a Cross Currency Swap into CHF. The unrealized foreign exchange rate result calculated from the translation of the certificates of indebtedness into Swiss francs amounted in 2020 to a gain of CHF 0.5 million (2019: CHF 5 million gain) and is recorded in the cumulative translation difference in shareholders' equity.

In 2020, Clariant issued five certificates of indebtedness amounting to EUR 197.5 million and CHF 62.5 million (see note 18). The EUR denominated certificates were designated as a hedge of a net investment in some of Clariant's European subsidiaries. The

unrealized foreign exchange rate result calculated from the translation of the certificates of indebtedness into Swiss francs amounted to a loss of CHF 3.4 million and is recorded in the cumulative translation difference in shareholders' equity. On the disposal of the BU Masterbatches CHF 29 million of exchange rate gains incurred on hedges of net investment in a foreign entity were recycled to the income statement.

Clariant is hedging the interest rate risk resulting from the certificates of indebtedness in the amount of USD 277 million issued at a variable interest rate. For this purpose interest rate swaps amounting to USD 166 million have been established in 2018. Their clean price amounted to a negative CHF 0.9 million in 2020 (2019: positive CHF 1.5 million). They are accounted for as a cash flow hedge and as a consequence the result was recorded in other comprehensive income.

The hedge effectiveness is assessed at the beginning of the hedging relationship, and by recurring prospective effectiveness tests. Thus it is ensured that there exists an economic relationship between the underlying transaction and the hedging instrument.

The group enters into interest rate and cross currency swaps that have identical critical terms as the hedged item, such as reference rate, reset dates, payment dates, maturities and notional amount. The group does not hedge 100% of its loans, therefore the hedged item is identified as a proportion of the outstanding loans up to the notional amount of the swaps. As all critical terms matched during the year, the economic relationship was 100% effective.

Hedge ineffectiveness for interest rate/cross currency swaps is assessed using the following principles: The focus is on the credit value/debit value adjustment on the interest rate/cross currency swaps which is not matched by the loan, and differences in critical terms between the interest rate/cross currency swaps and loans.

The Cross Currency Basis Spread as per End of December 2020 was CHF 66 665 (2019: CHF 887 091).

There was no ineffectiveness during 2020 in relation to the interest rate/cross currency swaps. Clariant has chosen the cost of hedging approach for the newly entered cash flow hedging relationship. The cross-currency basis spread is not part of the hedging relationship.

32. Employee participation plans

Under the Group Senior Management – Long Term Incentive Plan (GSM-LTIP) a certain percentage of the actual bonus is granted to the plan participants in the form of registered shares of Clariant Ltd (investment shares). These shares vest immediately upon grant, but are subject to a three-year blocking period. Shares were granted for the first time in 2011, based on the performance achieved in the base year 2010. Similar plans were launched in all subsequent years. In the years 2013 to 2018 the plan participants also received an additional share free of cost (matching share) for each investment share held at the end of the blocking period. The number of shares not yet vested and thus disclosed are the matching shares already granted. No further grants were made after 2018 under this plan.

For the first time in 2013, the Performance Share Unit (PSU) Plan was introduced for all senior managers. The term of Clariant's Performance Share Unit Plan is a three-year vesting period. The vesting is conditional upon achievement of the performance targets at the end of the vesting period. If the performance targets are achieved, each PSU will be converted into one Clariant share. The PSUs that would have vested in 2020 were not awarded as the performance targets were not achieved.

In 2019, the new Clariant Long-Term Incentive Plan (CLIP) was introduced with the first grants in April 2019. A subsequent grant took place in April 2020. The CLIP represents an equity-based award in the form of Performance Share Units with a three-year vesting period. The review of the target achievements (vesting criteria) for the first grant under this plan will be held in summer 2022 and vesting is scheduled to take place in September 2022. Target achievement reviews and vesting will continue on an annual basis for all subsequent grants.

The expense recorded in the income statement and in equity spreads the costs of each grant over the measurement period and the vesting period. Assumptions are made concerning the forfeiture rate which is adjusted during the vesting period so that at the end of the vesting period there is only a charge for the vested amounts.
In 2020, CHF 11 million were debited to the income statement for equity-settled share-based payments (2019: income of CHF 4 million).

As of 31 December 2020, the total carrying value of liabilities arising from equity-settled share-based payments, entirely recognized in equity, is CHF 20 million (2019: CHF 20 million).

SHARES FOR MEMBERS OF MANAGEMENT AND THE EXECUTIVE COMMITTEE

Base year	Granted	Vesting in		Fair value at grant date	**Number 31.12.2020**	Number 31.12.2019
2016	2017	2020		18.67	–	153 224
2017	2017	2020		22.11	–	338 458
2017	2017	2020		18.74	–	12 831
2017	2017	2020		19.15	–	11 799
2017	2018	2021		22.82	97 100	119 141
2018	2018	2021		23.58	270 024	333 715
2018	2018	2021		21.47	3 960	3 960
2018	2018	2021		24.11	2 074	2 074
2018	2018	2022		20.38	–	8 587
2018	2018	2020		20.38	–	8 587
2019	2019	2022		15.91	884 192	1 090 988
2020	2020	2023		12.87	1 138 348	–
Total					**2 395 698**	**2 083 364**

	Weighted average exercise price	Shares 2020	Weighted average exercise price	Shares 2019
Shares outstanding at 1 January	21.60	2 083 364	18.09	1 783 703
Granted		1 211 808		1 218 725
Exercised / distributed		–173 290		–186 057
Cancelled / forfeited		–726 184		–733 007
Outstanding at 31 December	**18.82**	**2 395 698**	**21.60**	**2 083 364**
Fair value of shares outstanding in CHF		45 087 027		45 000 652

The fair value of shares granted during 2020 is CHF 15 million (2019: CHF 17 million) calculated based on market value of shares at grant date.

No options were granted in 2020 and 2019.

33. Personnel expenses

in CHF m	2020	2019
Wages and salaries	–1 019	–1 121
Social welfare costs	–185	–242
Shares and options granted to directors and employees	–11	–4
Pension costs – defined contribution plans	–24	–28
Pension costs – defined benefit plans	–34	–37
Other post-employment benefits	—	1
Total personnel expenses	**–1 273**	**–1 431**
thereof reported under discontinued operations	265	394
Total continuing operations	**–1 008**	**–1 037**

34. Related party transactions

Clariant maintains business relationships with related parties. One group consists of the associates and joint ventures, of which the most important ones are described in note 8. The most important business with these companies is the purchase of services by Clariant (e.g. energy and rental of land and buildings) in Germany and the rendering of services to the Global Amines group.

The second group of related parties is key management comprising the Board of Directors and the Executive Committee. The information required by the ordinance against excessive compensation in stock exchange-listed companies regarding the emoluments for the members of the Board of Directors and the Executive Committee is disclosed in the Compensation Report.

More information on the relationship with the Board of Directors is given in the **Corporate Governance report** (non-audited).

The third group of related parties are the pension plans of major subsidiaries. Clariant provides services to its pension plans in Switzerland, the United Kingdom, and the United States. These services comprise mainly administrative and trustee services. The total costs in 2020 of these services is CHF 1 million (2019: CHF 1 million), of which approximately half is charged back to the pension plans. The number of full-time employees corresponding to these is approximately four (2019: approximately four).

The fourth group of related parties are all companies pertaining to the SABIC group, who is a 31.5% shareholder of Clariant (see note 17). The most important business done with these companies is the sale and purchase of chemical products.

TRANSACTIONS WITH RELATED PARTIES

in CHF m	**2020**	2019
Income from the sale of goods to related parties	47	85
thereof to joint ventures	*9*	*7*
thereof to associates	*11*	*13*
thereof to SABIC companies	*27*	*65*
Income from the rendering of services to related parties	48	55
thereof to joint ventures	*26*	*29*
thereof to associates	*22*	*26*
Expenses from the purchase of goods from related parties	–39	–31
thereof from joint ventures	*–17*	*–14*
thereof from associates	*–17*	*–6*
thereof from SABIC companies	*–5*	*–11*
Expenses from services rendered by related parties	–216	–224
thereof by joint ventures	*–30*	*–29*
thereof by associates	*–186*	*–194*
Expense from the purchase of property, plant and equipment from related parties	–7	–10
thereof from associates	*–7*	*–10*
Expense from lease contracts with related parties	–7	–7
thereof with associates	*–7*	*–7*

PAYABLES AND RECEIVABLES WITH RELATED PARTIES

in CHF m	**31.12.2020**	31.12.2019
Receivables from related parties	15	25
thereof from joint ventures	*4*	*5*
thereof from associates	*4*	*7*
thereof from SABIC companies	*7*	*13*
Payables to related parties	51	54
thereof to joint ventures	*4*	*6*
thereof to associates	*47*	*44*
thereof to SABIC companies	*-*	*4*
Loans to related parties	19	23
thereof to joint ventures	*2*	*7*
thereof to associates	*17*	*16*
Loans from related parties	1	–1
thereof from associates	*1*	*–1*
Guarantees to third parties on behalf of related parties[1]	—	63
thereof on behalf of joint ventures	*—*	*63*

[1] The guarantee extended on behalf of a related party concerns a bank loan to a US joint venture.

TRANSACTIONS WITH KEY MANAGEMENT

in CHF m	**2020**	2019
Salaries and other short-term benefits	9	8
Termination benefit	—	2
Post-employment benefits	1	1
Share-based payments	2	2
Total	**12**	**13**

There are no outstanding loans by the Group to any members of the Board of Directors or Executive Committee.

35. Commitments and contingencies

Guarantees. No guarantees on behalf of third parties were issued in 2020 and 2019.

Purchase commitments. In the regular course of business, Clariant enters into relationships with suppliers whereby the Group commits itself to purchase certain minimum quantities of materials in order to benefit from better pricing conditions. These commitments are not in excess of current market prices and reflect normal business operations.

Clariant is engaged in contracts to buy a minimum quantity of ethylene for the next ten years and other materials in 2021. This implies a total purchase commitment of about CHF 700 million (2019: about CHF 900 million).

Contingencies. Clariant operates in countries where political, economic, social, legal, and regulatory developments can have an impact on the operational activities. The effects of such risks on the company's results, which arise during the normal course of business, are not foreseeable and are therefore not included in the accompanying financial statements.

In the aftermath of the procedure to acquire subsequent to the acquisition of Süd-Chemie, the 1.36 % of shares still in possession of third parties (squeeze-out) at the time, several minority shareholders initiated appraisal proceedings to reassess the adequacy of the cash compensation paid to the minority shareholders. After a court decision the case was settled with payments in the total amount of CHF 1.6 million in 2019.

In the ordinary course of business, Clariant is involved in lawsuits, claims, investigations and proceedings, including product liability, intellectual property, commercial, environmental and health and safety matters. Although the outcome of any legal proceedings cannot be predicted with certainty management is of the opinion that, apart from those cases where a provision has already been recognized, there are no such matters pending which would likely have any material adverse effect in relation to its business, financial position or results of operations.

Environmental risks. Clariant is exposed to environmental liabilities and risks relating to its past operations, principally in respect of remediation costs. Provisions for non-recurring remediation costs are made when there is a legal or constructive obligation and the costs can be reliably estimated. It is difficult to estimate the action required by Clariant in the future to correct the effects on the environment of prior disposal or release of chemical substances by Clariant or other parties, and the associated costs, pursuant to environmental laws and regulations. The material components of the environmental provisions consist of costs to fully clean and refurbish contaminated sites and to treat and contain contamination at sites where the environmental exposure is less severe.

36. Exchange rates of principal currencies

Rates used to translate the consolidated balance sheets (closing rate):

	31.12.2020	31.12.2019
1 USD	0.88	0.97
1 EUR	1.08	1.08
1 BRL	0.17	0.24
1 CNY	0.13	0.14
100 INR	1.21	1.35
100 JPY	0.85	0.89

Sales-weighted average exchange rates used to translate the consolidated income statements and consolidated statements of cash flows:

	2020	2019
1 USD	0.94	0.99
1 EUR	1.07	1.11
1 BRL	0.18	0.25
1 CNY	0.14	0.14
100 INR	1.26	1.41
100 JPY	0.88	0.91

37. Important subsidiaries

Country	Company name	Currency	Share-/ paid in capital (in thousands)	Participation in %	Holding/ Finance/ Service	Sales	Production	Research	classified as discontinued operations
Argentina	Clariant (Argentina) SA, Buenos Aires	ARS	54 605	100.0			■	■	
	Colorants Solutions (Argentina) S.A., Ciudad Autónoma de Buenos Aires	ARS	92 556	100.0	■		■	■	
Australia	Clariant (Australia) Pty Ltd, Notting Hill	AUD	1 902	100.0			■	■	
	Colorants Solutions (Australia) Pty Ltd, Notting Hill	AUD	1 000	100.0	■		■		■
Belgium	Colorants Solutions (Belgium) SA, Louvain-La-Neuve	EUR	19	100.0	■		■		■
Brazil	Clariant S.A., São Paulo	BRL	276 953	100.0		■	■	■	
	Clariant Administração de Bens Ltda., São Paulo	BRL	43 809	100.0	■	■	■		
	Companhia Brasileira de Bentonita Ltda, Vitoria da Conquista	BRL	17 470	100.0			■	■	
	Consórcio CCPN, Niteroi	BRL	26 113	100.0			■	■	
	Colorants Solutions (Brazil) Ltda., Santo Amaro	BRL	44 152	100.0	■		■	■	■
Canada	Clariant (Canada) Inc., Toronto	CAD	10 415	100.0			■	■	
	Colorants Solutions (Canada) Inc., Toronto	CAD	2 800	100.0	■		■		■
Chile	Clariant (Chile) Ltda., Maipú-Santiago de Chile	CLP	15	100.0			■	■	
China	Clariant (China) Ltd., Hong Kong	HKD	414 788	100.0		■			
	Clariant Bohai Pigments Preparations (Tianjin) Ltd., Tianjin	CNY	49 176	90.0			■	■	
	Clariant Chemicals (China) Ltd., Shanghai	CNY	210 014	100.0			■	■	
	Clariant Chemicals (Huizhou) Ltd., Daya Bay, Huizhou	CNY	183 039	100.0			■	■	
	Clariant China Holding Limited, Hong Kong	HKD	67 251	100.0		■			
	Clariant Huajin Catalysts (Panjin) Ltd., Panjin City	CNY	69 511	60.0		■	■		
	Clariant Redhill Bentonite (Liaoning) Ltd., Jianping	CNY	124 365	100.0			■	■	
	Clariant Specialty Chemicals (Zhenjiang) Co., Ltd., Zhenjiang	CNY	149 503	100.0			■	■	
	Clariant Bentonite (Jiangsu) Co., Ltd., Zhenjiang	CNY	79 058	100.0			■	■	
	Clariant Coatings (Shanghai) Ltd., Shanghai	CNY	245 393	100.0			■	■	
	Clariant Chemicals Technology (Shanghai) Ltd., Shanghai	CNY	80 827	100.0	■			■	
	Clariant Specialty Chemicals (Jiaxing) Co., Ltd., Jiangxing	CNY	118 626	100.0				■	
Colombia	Clariant Colombia S.A., Cota (Cundinamarca)	COP	2 265	100.0			■	■	
	Colorants Solutions (Colombia) S.A.S., Cota (Cundinamarca)	COP	5 567	100.0	■		■	■	■
France	Clariant Production (France), Choisy le Roi	EUR	6 273	100.0			■	■	
	Clariant Services (France), Choisy le Roi	EUR	21 200	100.0		■			
	Colorants Solutions (France), Choisy le Roi	EUR	300	100.0	■		■	■	■
Germany	Navigance GmbH, Planegg	EUR	102	100.0		■	■	■	
	Clariant Produkte (Deutschland) GmbH, Frankfurt a.M.	EUR	9 348	100.0		■	■	■	
	Colorants Solutions (Deutschland) GmbH, Frankfurt a.M.	EUR	500	100.0	■		■	■	■
	Clariant SE, Frankfurt a.M.	EUR	916	100.0	■		■	■	
	Clariant Verwaltungsgesellschaft mbH, Frankfurt a.M.	EUR	2 560	100.0		■			
	Süd-Chemie IP GmbH & Co. KG, Munich	EUR	803	100.0	■				
Great Britain	Clariant Distribution UK Limited, Yeadon, Leeds	GBP	500	100.0	■				
	Clariant Oil Services UK Ltd, Yeadon, Leeds	GBP	400	100.0			■	■	
	Clariant Production UK Ltd, Yeadon, Leeds	GBP	500	100.0		■	■	■	
	Clariant Services UK Ltd, Yeadon, Leeds	GBP	500	100.0		■			
	Colorants Solutions (UK) Ltd, Yeadon, Leeds	GBP	3 501	100.0	■		■		■
Greece	Süd-Chemie Hellas Monoprosopi EPE, Adamantas, Milos	EUR	548	100.0			■	■	
Guatemala	Clariant Specialties (Guatemala), S.A., Guatemala City	GTQ	4 114	100.0			■		
India	Clariant Chemicals (India) Ltd, Navi Mumbai	INR	230 818	51.0			■	■	
	Clariant India Private Limited, Navi Mumbai	INR	10 829	100.0		■	■		
	Süd-Chemie India Pvt. Ltd., Ernakulam	INR	9 623	50.0			■		
Indonesia	PT. Clariant Indonesia, Tangerang	IDR	267 577	100.0		■	■	■	
	PT. Clariant Kujang Süd-Chemie Catalysts, Cikampek	USD	3 447	76.9			■	■	

Country	Company name	Currency	Share-/ paid in capital (in thousands)	Participation in %	Holding/ Finance/ Service	Sales	Production	Research	classified as discontinued operations
	PT. Clariant Plastics & Coatings, Tangerang Banten	USD	10 282	100.0			■		
	PT. Clariant Specialties Indonesia, Tangerang Banten	IDR	4 803	100.0			■		
	PT. Clariant Adsorbents Indonesia, Sukabumi	IDR	12 375	100.0			■	■	
	P.T. Colorants Solutions (Indonesia), Tangerang	IDR	21 750	100.0					■
Italy	Clariant (Italia) S.p.A., Milano	EUR	36 000	100.0		■			
	Clariant Prodotti (Italia) S.p.A., Milano	EUR	1 000	100.0			■	■	
	Società Sarda di Bentonite S.r.l., Santa Giusta	EUR	2 050	100.0			■	■	
	Colorants Solutions (Italia) S.p.A., Milano	EUR	5 200	100.0					■
Japan	Clariant (Japan) K.K., Tokyo	JPY	450	100.0			■	■	
	Clariant Catalysts (Japan) K.K., Tokyo	JPY	544	61.5		■	■	■	
	Clariant Plastics & Coatings (Japan) K.K., Tokyo	JPY	250	100.0			■	■	
Korea	Clariant (Korea) Ltd., Pohang, Pohang-Si	KRW	6 361	100.0			■	■	
Luxemburg	Clariant Finance (Luxembourg) S.A., Luxemburg	EUR	82 030	100.0		■			
Malaysia	Clariant (Malaysia) Sdn Bhd, Kuala Lumpur	MYR	12 347	100.0			■		
	Clariant Oil Services (Malaysia) Sdn Bhd, Petaling Jaya	MYR	411	48.9			■	■	
	Clariant Specialty Chemical (M) Sdn Bhd, Kuala Lumpur	MYR	3 300	100.0	■	■			
Mexico	Clariant (Mexico) S.A. de C.V., Ecatepec de Morelos	MXN	22 219	100.0		■	■	■	
	Clariant Productos Químicos, S.A. de C.V., Ecatepec de Morelos	MXN	2 475	100.0	■				
	Clariant Plastics & Coatings México, S.A. de C.V., Ecatepec de Morelos	MXN	358	100.0		■	■	■	
	Clariant Servicios Integrales México, S.A. de C.V., Ecatepec de Morelos	MXN	3	100.0	■				
Morocco	Clariant (Maroc) S.A., Casablanca	MAD	4 000	100.0			■		
Norway	Clariant Oil Services Scandinavia AS, Bergen	NOK	4 725	100.0			■		
Pakistan	Clariant Pakistan (private) limited, Karachi	PKR	50 000	100.0			■		
Peru	Clariant (Perú) S.A., Lima	PEN	20 454	100.0		■	■	■	
	Clariant Plastics & Coatings (Perú) S.A.C., Lima	PEN	2 010	100.0			■		
Poland	Clariant Poland Spolka z.o.o., Konstantynów Łódzki	PLN	3 000	100.0			■	■	
	Clariant Services (Poland) SP. z o.o., Łódź	PLN	10 000	100.0	■				
	Colorants Solutions (Polska) Spolka z o.o., Łódź	PLN	4 500	100.0	■				■
Qatar	Clariant Qatar W.L.L., Mesaieed	QAR	60 000	65.0			■	■	
Romania	Clariant Products Ro Srl, Bucarest	RON	105 261	100.0	■	■			
Russia	Clariant (RUS) LLC, Moscow	RUB	16 200	100.0			■		
Singapore	Clariant (Singapore) Pte. Ltd., Singapore	SGD	3 500	100.0		■	■		
	Clariant South East Asia Pte. Ltd., Singapore	SGD	1 560	100.0		■	■		
	Colorants Solutions (Singapore) Pte. Ltd., Singapore	SGD	3 000	100.0					■
South Africa	Clariant Sasol Catalysts Ltd., Chloorkop, Gauteng	ZAR	1 417	80.0			■	■	
	Clariant Southern Africa (Pty) Ltd. Chloorkop, Gauteng	ZAR	6	100.0		■	■	■	
	Clariant Plastics & Coatings Southern Africa (Pty) Ltd., Chloorkop, Gauteng	ZAR	70 000	100.0			■	■	
Spain	Clariant Ibérica Producción S.A., Sant Joan Despi	EUR	6 023	100.0		■	■	■	
	Clariant Ibérica Servicios S.L., Sant Joan Despi	EUR	358	100.0	■				
	Colorants Solutions (Ibérica) S.A., Sant Joan Despi	EUR	3 503	100.0					■
Sweden	Clariant Production Sweden AB, Mölndal	SEK	500	100.0			■	■	
	Colorants Solutions Scandinavia AB, Mölndal	SEK	50	100.0					■
Switzerland	Clariant Consulting AG, Muttenz	CHF	200	100.0		■			
	Clariant Chemical Consulting AG, Muttenz	CHF	100	100.0		■			
	Clariant International AG, Muttenz	EUR	101 648	100.0		■	■	■	
	Clariant Oil Services AG, Muttenz	CHF	300	100.0		■			
	Clariant Reinsurance AG, Muttenz	CHF	3 000	100.0	■				
	EBITO Chemiebeteiligungen AG, Muttenz	CHF	202	100.0		■			
	Clariant Produkte (Schweiz) AG, Muttenz	CHF	5 000	100.0		■	■		

Country	Company name	Currency	Share-/ paid in capital (in thousands)	Participation in %	Holding/ Finance/ Service	Sales	Production	Research	classified as discontinued operations
	Clariant Additives (Switzerland) AG, Muttenz	CHF	5 000	100.0			■	■	
	Colorants International AG, Muttenz	EUR	28 799	100.0	■	■	■	■	■
	Colorants Solutions Switzerland AG, Muttenz	EUR	100	100.0			■	■	
Taiwan	Clariant Specialty Chemicals (Taiwan) Co., Ltd., Taipei	TWD	36 000	100.0			■		
Thailand	Clariant (Thailand) Ltd., Bangkok	THB	250 000	100.0			■		
	Colorants Solutions (Thailand) Ltd., Bangkok	THB	100 000	100.0	■		■	■	■
Turkey	Clariant (Türkiye) A.S., Ataşehir/İstanbul	TRY	17 538	100.0			■	■	
	Colorants Solutions (Türkiye) A.S., Ataşehir/İstanbul	TRY	1 500	100.0	■		■	■	■
UAE	Clariant (Gulf) FZE, Jebel Ali, Dubai	AED	1 000	100.0			■		
	Colorants Solutions (Gulf) FZE, Jebel Ali, Dubai	AED	1 000	100.0	■		■		■
Ukraine	Clariant Ukraine LLC, Severodonetsk	UAH	28 688	100.0			■	■	
USA	Clariant Corporation, Charlotte, NC	USD	749 500	100.0		■	■	■	
	Colorants Solutions USA LLC, Charlotte, NC	USD	1 000	100.0	■		■		■
Venezuela	Clariant Venezuela, S.A., Maracay	VES	1	100.0		■	■		

[1] The participation in % reflects the captital and voting rights in %.

38. Events subsequent to the balance sheet date

On 1 February 2020, Clariant announced that the Board of Directors recommends to the shareholders of the Company a regular distribution from paid-in share capital of CHF 0.70 per share. This would include CHF 0.55 per share for the fiscal year 2019 and CHF 0.15 per share for 2020. Agreeing to the agenda items proposed by the Board of Directors, the anchor shareholder SABIC withdraws its own proposals for the agenda of the Annual General Meeting, sent to the Company at the end of December 2020. This included a special distribution to shareholders in the amount of up to CHF 2.00 per share.

Report of the statutory auditor

to the General Meeting of Clariant Ltd

Muttenz

Report on the audit of the consolidated financial statements

Opinion

We have audited the consolidated financial statements of Clariant Ltd and its subsidiaries (the Group), which comprise the consolidated balance sheets as at 31 December 2020 and the consolidated income statements, consolidated statements of comprehensive income, consolidated statements of changes in equity and consolidated statements of cash flows for the year then ended, and notes to the consolidated financial statements, including a summary of significant accounting policies.

In our opinion, the consolidated financial statements (pages 1 to 65) give a true and fair view of the consolidated financial position of the Group as at 31 December 2020 and its consolidated financial performance and its consolidated cash flows for the year then ended in accordance with the International Financial Reporting Standards (IFRS) and comply with Swiss law.

Basis for opinion

We conducted our audit in accordance with Swiss law, International Standards on Auditing (ISAs) and Swiss Auditing Standards. Our responsibilities under those provisions and standards are further described in the "Auditor's responsibilities for the audit of the consolidated financial statements" section of our report.

We are independent of the Group in accordance with the provisions of Swiss law and the requirements of the Swiss audit profession, as well as the International Code of Ethics for Professional Accountants (including International Independence Standards) of the International Ethics Standards Board for Accountants (IESBA Code), and we have fulfilled our other ethical responsibilities in accordance with these requirements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Our audit approach

Overview



Overall Group materiality: CHF 32 million

We concluded full scope audit work at 19 reporting units in nine countries. Our audit scope addressed over 67% of the Group's revenue, including discontinued operations. In addition, we performed review procedures on the Business Unit Masterbatches for the first six months of 2020, covering a further 9% of the Group's revenue.

As key audit matters, the following areas of focus have been identified:

- Management's assumptions and estimates used in the impairment test for goodwill
- Divestment of the Business Unit Masterbatches

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Materiality

The scope of our audit was influenced by our application of materiality. Our audit opinion aims to provide reasonable assurance that the consolidated financial statements are free from material misstatement. Misstatements may arise due to fraud or error. They are considered material if, individually or in aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of the consolidated financial statements.

Based on our professional judgement, we determined certain quantitative thresholds for materiality, including the overall Group materiality for the consolidated financial statements as a whole as set out in the table below. These, together with qualitative considerations, helped us to determine the scope of our audit and the nature, timing and extent of our audit procedures and to evaluate the effect of misstatements, both individually and in aggregate, on the consolidated financial statements as a whole.

Overall Group materiality	CHF 32 million
How we determined it	2.5% of the Group's EBITDA (including discontinued operations and adjusted for selected non-recurring effects) weighted at 75%, and 1% of the Group's total assets weighted at 25%
Rationale for the materiality benchmark applied	We chose EBITDA as the benchmark because management assesses its profitability mainly on the basis of this measure of profit and we took the Group's assets into consideration since the chemical industry, being highly capital intensive, has a more volatile net profit margin than other industries.

We agreed with the Audit Committee that we would report to them misstatements above CHF 1.6 million identified during our audit as well as any misstatements below that amount which, in our view, warranted reporting for qualitative reasons.

Audit scope

We tailored the scope of our audit in order to perform sufficient work to enable us to provide an opinion on the consolidated financial statements as a whole, taking into account the structure of the Group, the accounting processes and controls, and the industry in which the Group operates.

From 123 reporting units, we identified 19 reporting units (components) as the largest contributors to the Group's financial statements (amounting to 67% of the Group's revenue including discontinued operations and addressing all geographical areas of the Group's business). These reporting units were subject to a full scope audit by local PwC network firms. In addition, we held regular virtual meetings during all phases of the audit to discuss material audit topics with the component auditors of the most significant reporting units. Further audit procedures were performed by the central Group audit team on certain Group functions (addressing, among other topics, taxation, treasury and information technology) and the Group consolidation. Of the Group's revenue, 9% was addressed through our review procedures on the Business Unit Masterbatches for the first six months of 2020. In addition, two PwC network firms performed specific audit procedures related to sales and procurement and to the financial closing cycle at the Group's shared service centres on behalf of PwC Switzerland.

Key audit matters

Key audit matters are those matters that, in our professional judgement, were of most significance in our audit of the consolidated financial statements of the current period. These matters were addressed in the context of our audit of the consolidated financial statements as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on these matters.

Management's assumptions and estimates used in the impairment test for goodwill

Key audit matter	How our audit addressed the key audit matter
The valuation of goodwill depends on the forecast results of the businesses and the discount rates applied to cash flow forecasts. We consider its valuation to be a key audit matter because of the significant scope for judgement involved in the assumptions on which these forecasts are	We evaluated and challenged management's assumptions as presented on page 18 (Critical accounting estimates and judgments, 4.1 Estimated impairment of goodwill and

based. In particular, we focussed on goodwill relating to the Catalysts business unit, which amounts to CHF 645 million, as we consider that the risk of impairment is higher for this unit than for other business units.

Please refer to page 18 (Critical accounting estimates and judgments, 4.1 Estimated impairment of goodwill, intangibles, and property, plant and equipment), and page 24 (Goodwill allocation) in the notes to the consolidated financial statements.

property, plant and equipment) in the notes to the consolidated financial statements.

Management followed a clearly documented process for forecasting future cash flows, which was subject to timely oversight and challenge by the Board of Directors.

We compared the actual results of the year under review with the figures used to make the forecasts in the prior year in order to assess with hindsight whether any of the assumptions underlying the forecasts might have been too optimistic. In some cases, actual performance was found to be lower than forecast. Management analysed the underlying drivers, considered actual revenue growth rates and operating margins against those in the business plans prepared in the year under review and included the actual rates and margins in the new business plans.

We discussed with the business unit leaders management's assumptions regarding revenue, long-term growth rates and profit margins. We involved PwC's own valuation specialists to assess the model and the weighted average cost of capital (WACC) used. The WACC was assessed on the basis of comparable industry peers and data available from external sources. In addition, we assessed for reasonableness the expectations of movements in working capital and of investments in property, plant and equipment.

We found the assumptions to be balanced and reasonable.

We reperformed thorough sensitivity analyses on the key assumptions to ascertain the extent of change in those assumptions that either individually or collectively would be required for the goodwill to be impaired. We discussed the results of our audit work as well as the headroom of the sensitivity analyses with management, the Audit Committee and the Board of Directors.

On the basis of the procedures performed and the evidence obtained, we identified no significant issues with respect to the process applied by management and the Board of Directors in the impairment test for goodwill.

Divestment of the Business Unit Masterbatches

Key audit matter	How our audit addressed the key audit matter
Clariant completed the sale of its Business Unit Masterbatches on 1 July 2020 for a total consideration of CHF 1,448 million. As a result, a gain on disposal of CHF 723 million after tax was recognised in discontinued operations of the current year. The disposal of the Business Unit Masterbatches is a significant event for the Group, has a material impact on the consolidated financial statements and involves management's judgement.	We analysed the share purchase agreement and other documents to verify the closing date of the transaction and the determined consideration. We discussed with management the approach and the calculation of the gain on disposal. We evaluated the consolidation journal entries related to the deconsolidation of the Business Unit Masterbatches and the calculation of the gain on disposal. We assessed management's assumptions, tested the reclassification of the related currency translation adjustment and evaluated

Please refer to note 25 (Discontinued operations and assets held for sale) in the notes of the consolidated financial statements.	the presentation and the disclosures related to the disposal in the consolidated financial statements. On the basis of the procedures performed and the information obtained, we are satisfied that the approach taken by management and the Board of Directors was reasonable.

Other information in the integrated report

The Board of Directors is responsible for the other information in the integrated report. The other information comprises all information included in the integrated report, but does not include the consolidated financial statements, the standalone financial statements and the compensation report of Clariant Ltd and our auditor's reports thereon.

Our opinion on the consolidated financial statements does not cover the other information in the integrated report and we do not express any form of assurance conclusion thereon.

In connection with our audit of the consolidated financial statements, our responsibility is to read the other information in the integrated report and, in doing so, consider whether the other information is materially inconsistent with the consolidated financial statements or our knowledge obtained in the audit, or otherwise appears to be materially misstated. If, based on the work we have performed, we conclude that there is a material misstatement of this other information, we are required to report that fact. We have nothing to report in this regard.

Responsibilities of the Board of Directors for the consolidated financial statements

The Board of Directors is responsible for the preparation of the consolidated financial statements that give a true and fair view in accordance with IFRS and the provisions of Swiss law, and for such internal control as the Board of Directors determines is necessary to enable the preparation of consolidated financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the consolidated financial statements, the Board of Directors is responsible for assessing the Group's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless the Board of Directors either intends to liquidate the Group or to cease operations, or has no realistic alternative but to do so.

Auditor's responsibilities for the audit of the consolidated financial statements

Our objectives are to obtain reasonable assurance about whether the consolidated financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with Swiss law, ISAs and Swiss Auditing Standards will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these consolidated financial statements.

A further description of our responsibilities for the audit of the consolidated financial statements is located at the website of EXPERTsuisse: http://expertsuisse.ch/en/audit-report-for-public-companies. This description forms part of our auditor's report.

Report on other legal and regulatory requirements

In accordance with article 728a paragraph 1 item 3 CO and Swiss Auditing Standard 890, we confirm that an internal control system exists which has been designed for the preparation of consolidated financial statements according to the instructions of the Board of Directors.

We recommend that the consolidated financial statements submitted to you be approved.

PricewaterhouseCoopers AG



Rolf Johner

Audit expert
Auditor in charge



Michael Scheibli

Audit expert

Basel, 9 February 2021

Review of trends

FIVE-YEAR GROUP OVERVIEW 2016–2020

		2020[2]	2019[2]	2018[3]	2018	2017	2016
Segment sales	CHF m	**3 883**	**4 434**	**4 445**	**6 682**	**6 429**	**5 883**
Change relative to preceding year							
in Swiss francs	%	–12	—	—	4	9	1
in local currency	%	–5	3	—	5	9	2
Group sales[1]	CHF m	**3 860**	**4 399**	**4 404**	**6 623**	**6 377**	**5 847**
Change relative to preceding year							
in Swiss francs	%	–12.3	–0	—	4	9	1
in local currency	%	–5	3	—	5	9	2
Adjusted operating income	CHF m	**350**	**444**	**480**	**693**	**673**	**622**
Change relative to preceding year	%	–21	–7	–29	3	8	4
as a % of sales		9.1	10.1	10.9	10.5	10.6	10.6
Operating income	CHF m	**298**	**165**	**348**	**546**	**496**	**512**
Change relative to preceding year	%	81	–53	–30	10	–3	3
as a % of sales		7.7	3.8	7.9	8.2	7.8	8.8
EBITDA	CHF m	**578**	**461**	**607**	**871**	**813**	**785**
Change relative to preceding year	%	25	–24	–25	7	4	2
as a % of sales		15.0	10.5	13.8	13.2	12.7	13.4
Adjusted EBITDA	CHF m	**619**	**740**	**739**	**1 018**	**974**	**887**
Change relative to preceding year	%	–16	—	–24	5	10	4
as a % of sales		16.0	16.8	16.8	15.4	15.3	15.2
Net income	CHF m	**799**	**38**	**356**	**356**	**302**	**263**
Change relative to preceding year	%	2 003	–89	18	18	15	10
as a % of sales		20.7	0.9	8.1	5.4	4.7	4.5
Investment in property, plant and equipment	CHF m	**288**	**273**	**237**	**237**	**248**	**297**
Change relative to preceding year	%	5	15	–4	–4	–16	–21
as a % of sales		7	6	5	4	4	5
Personnel costs[4]	CHF m	**1 273**	**1 431**	**1 457**	**1 457**	**1 460**	**1 383**
Change relative to preceding year	%	–11	–2	—	—	6	3
as a % of sales		33	33	33	22	23	24
Employees at year-end	number	13 235	17 223	17 901	17 901	18 135	17 442
Change relative to preceding year	%	–23	–4	–1	–1	4	1

[1] Including trading
[2] Continuing operations
[3] Restated for discontinued operations
[4] Including discontinued operations

Financial statements of Clariant Ltd, Muttenz

BALANCE SHEETS OF CLARIANT LTD

at 31 December 2020 and 2019	Notes	31.12.2020 in CHF	in %	31.12.2019 in CHF	in %
Assets					
Current assets					
Cash and cash equivalents	3	352 170 332		226 347 902	
Short-term deposits	3	256 120 000		130 143 600	
Other short-term receivables	4	32 266 139		34 533 505	
Accrued income and prepaid expenses		2 998 856		2 368 133	
Total current assets		**643 555 327**	**12.9**	**393 393 140**	**7.3**
Non-current assets					
Loans to Group companies		2 528 737 770		2 974 169 841	
Other financial assets		502 240		922 320	
Shareholdings in Group companies	5	1 822 537 204		1 992 699 302	
Intangible assets		5 468 935		7 598 141	
Total non-current assets		**4 357 246 149**	**87.1**	**4 975 389 604**	**92.7**
Total assets		**5 000 801 476**	**100.0**	**5 368 782 744**	**100.0**
Liabilities and Equity					
Liabilities					
Current liabilities					
Other current non-interest-bearing liabilities	6	182 953 864		73 696 526	
Other current interest bearing liabilities	7	620 205 551		407 346 090	
Current provision		188 982 974		111 413 099	
Accrued expenses		5 864 408		5 483 403	
Total current liabilities		**998 006 797**	**20.0**	**597 939 118**	**11.2**
Non-current liabilities					
Non-current interest-bearing liabilities to third parties	12	1 417 038 097		1 471 357 780	
Total non-current interest-bearing liabilities	**12**	**1 417 038 097**	**28.3**	**1 471 357 780**	**27.4**
Total liabilities		**2 415 044 894**		**2 069 296 898**	
Equity					
Share capital	**8, 11**	**1 228 175 036**		**1 228 175 036**	
Reserves from capital contribution[1]	9, 11	1 308 215 414		2 094 200 965	
thereof from capital contribution reserves (other)		*1 308 215 414*		*1 506 664 792*	
thereof from capital contribution reserves (foreign)		—		*587 536 173*	
Reserves from retained earnings[2]	9, 11	–1 264 297 991		–1 264 297 991	
Other statutory reserves		220 000 000		—	
Total statutory capital reserves	**11**	**263 917 423**		**829 902 974**	
Voluntary retained earnings	11	865 920 811		1 277 300 539	
Total reserves	**9, 11**	**1 129 838 234**		**2 107 203 513**	
Profit for the financial year		271 260 385		11 295 791	
Treasury shares	**10, 11**	**–43 517 073**		**–47 188 494**	
Total equity		**2 585 756 582**	**51.7**	**3 299 485 846**	**61.4**
Total equity and liabilities		**5 000 801 476**	**100.0**	**5 368 782 744**	**100.0**

[1] In 2012, the Swiss Federal Tax Administration confirmed qualifying capital contribution reserves of approximately CHF 1.7 billion (as at 31 December 2020 due to distributions still amounting of approximately CHF 40 million). For further information, see also note 9 to the financial statements of Clariant Ltd.

[2] This amount corresponds to capital contribution reserves formerly offset with losses. For further information, see also note 9 to the financial statements of Clariant Ltd.

INCOME STATEMENTS OF CLARIANT LTD

for the years ended 31 December 2020 and 2019

	Notes	**2020** in CHF	2019 in CHF
Income			
Income from shareholdings in Group companies		106 883 944	63 684 441
Income from interest on loans to Group companies		55 575 323	66 487 459
Other financial income		7 123 835	10 993 377
Reversal of devaluations on shareholdings and other income related to Group Companies	5	—	134 703 181
Income from disposals of shareholdings and other income	5	655 064 606	48 169 291
Total income		**824 647 708**	**324 037 749**
Expenses			
Financial expenses		42 089 305	44 748 897
Administrative expenses		63 789 124	71 251 329
Devaluations of shareholdings and other expenses related to Group companies	5	282 569 184	154 081 709
Exchange rate differences net		60 458 451	35 679 937
Other expenses		102 480 556	6 041 951
Taxes		2 000 703	938 135
Total expenses		**553 387 323**	**312 741 958**
Profit for the financial year		**271 260 385**	**11 295 791**

Notes to the financial statements of Clariant Ltd

1. Accounting policies

Introduction. The statutory financial statements of Clariant Ltd comply with the regulations on financial accounting of the Swiss Code of Obligations.

Revenue recognition. Interest income is recognized on a time proportion basis, taking into account the principal outstanding and the effective rate over the period to maturity, when it is determined that such income will accrue to the company. Dividends are recognized when the right to receive payment is established.

Exchange rate differences. Balance sheet items denominated in foreign currencies are converted at year-end exchange rates. Realized exchange gains and losses as well as unrealized exchange losses are recorded in the income statement.

Intangible assets. Patents are capitalized at cost and amortized on a straight-line basis to the income statement over their estimated useful lives with a maximum of 20 years. Capital increase costs are directly charged to the income statement.

The Board of Directors approved the stand-alone financial statement of Clariant Ltd for issue on 9 February 2021. It will be subject to approval by the Annual General Meeting of Shareholders scheduled for 7 April 2021.

2. Basis of preparation

The statutory financial statements of Clariant Ltd have been prepared according to the provisions of the Swiss Law on Accounting and Financial Reporting (32nd title of the Swiss Code of Obligations).

Clariant Ltd has no employees, except the members of the Board of Directors of the Clariant Group.

3. Cash and cash equivalents and short-term deposits

Cash and cash equivalents amounts to CHF 352 170 332 at the end of 2020 compared with CHF 226 347 902 at the end of 2019 and comprise cash in hand denominated mainly in US-dollar, euro, Swiss francs and Japanese Yen and to a lesser extent in other currencies.

Short-term deposits amounted to CHF 256 120 000 at the end of 2020 compared to CHF 130 143 600 at the end of 2019 and include short term deposits with an original maturity between 90 and 365 days.

4. Other short-term receivables

Other short-term receivables amounted to CHF 32 266 139 at the end of 2020 compared to CHF 34 533 505 at the end of 2019. They comprise third party receivables for CHF 374 292 (compared to CHF 273 512 at the end of 2019) and intragroup receivables for CHF 31 891 847 (compared with CHF 34 259 993 at the end of 2019).

5. Shareholdings in Group companies

Shareholdings in group companies are reviewed on a yearly basis to assess their cash generating capabilities by applying either a mixed calculation method based on the equity value and the net result or, alternatively, the discounted cash flow model. In that review, the investments are classified and grouped in terms of sales and Business Areas.

The following shareholdings in group companies were valued using the discounted cash flow method: Clariant S.A. (Brazil), Clariant Finance (Luxembourg) S.A and Clariant Corporation (USA).
At the end of 2020, shareholdings in Group companies amount to CHF 1 822 537 204 compared to CHF 1 992 699 302 at the end of 2019. After this review, the following was recorded in the income statement: A reversal of devaluation of CHF 0 (2019: CHF 134 703 181) in "Reversal of devaluations on shareholdings and other income related to Group Companies" and a devaluation of CHF 282 569 184 (2019: CHF 154 081 709) in "Devaluations of shareholdings and other expenses related to Group Companies".

In the year 2020 no hidden reserves were reversed (2019: CHF 75 million).

On 1 July 2020 Clariant Ltd sold its subsidiary Clariant Plastics & Coatings Ltd and that company's subsidiaries to the US-based group Avient, as part of Clariant's transactions to sell the Masterbatch business. Total consideration for the sale of the company amounted to CHF 736 million and resulted in a book gain of CHF 582 million. Additionally loans extended to Masterbatch companies in the amount of CHF 430 million were transferred to the buyer at nominal value.

The table below shows the shareholdings directly held by Clariant Ltd.

Country	Company name		Capital interest (%)	Voting rights (%)	Capital interest (%)	Voting rights (%)
			2020	**2020**	**2019**	**2019**
Brazil	Clariant S.A.	São Paulo	46.32%	46.32%	46.32%	46.32%
Canada	Clariant (Canada) Inc.	Toronto	100.00%	100.00%	100.00%	100.00%
China	Clariant (China) Ltd.	Hong Kong	100.00%	100.00%	100.00%	100.00%
Colombia	Clariant (Colombia) S.A.	Cota (Cundinamarca)	5.13%	5.13%	5.13%	5.13%
Ecuador	Clariant (Ecuador) S.A.	Quito	0.03%	0.03%	0.03%	0.03%
France	Clariant Services (France)	Choisy-le-Roi	43.00%	43.00%	43.00%	43.00%
Germany	Clariant Verwaltungsgesellschaft mbH	Frankfurt a.M.	100.00%	100.00%	100.00%	100.00%
Great Britain	Clariant Services UK Ltd	Yeadon, Leeds	100.00%	100.00%	100.00%	100.00%
Guatemala	Clariant Specialties (Guatemala) S.A.	Guatemala City	10.00%	10.00%	10.00%	10.00%
Japan	Clariant (Japan) K.K.	Tokyo	70.48%	70.48%	70.48%	70.48%
	Clariant Catalysts (Japan) K.K.	Tokyo	61.45%	61.45%	61.45%	61.45%
Korea	Clariant Plastics & Coatings (Korea) Ltd.	Pohang, Gyeongbuk	0.00%	0.00%	17.50%	17.50%
	Clariant (Korea) Ltd.	Pohang, Gyeongbuk	17.50%	17.50%	17.50%	17.50%
Luxembourg	Clariant Finance (Luxembourg) S.A.	Luxembourg	100.00%	100.00%	100.00%	100.00%
Morocco	Clariant (Maroc) S.A.	Casablanca	0.05%	0.05%	0.05%	0.05%
Mexico	Clariant (Mexico) S.A. de C.V.	Ecatepec de Morelos	99.99%	99.99%	99.99%	99.99%
Norway	Clariant Oil Services Scandinavia AS	Bergen	100.00%	100.00%	100.00%	100.00%
Peru	Clariant (Perú) S.A.	Lima	0.23%	0.23%	0.23%	0.23%
Singapore	Clariant South East Asia Pte. Ltd.	Singapore	100.00%	100.00%	100.00%	100.00%
South Africa	Clariant Southern Africa (Pty) Ltd.	Chloorkop, Gauteng	100.00%	100.00%	100.00%	100.00%
Spain	Clariant Ibérica Servicios S.L.	El Prat de Llobregat	85.03%	85.03%	85.03%	85.03%
	Clariant Ibérica Produccion S.A.	El Prat de Llobregat	100.00%	100.00%	35.00%	35.00%
Sweden	Clariant Production Sweden AB	Mölndal	100.00%	100.00%	100.00%	100.00%
Switzerland	Clariant Plastics & Coatings AG	Muttenz	0.00%	0.00%	100.00%	100.00%
	Clariant Reinsurance AG	Muttenz	100.00%	100.00%	100.00%	100.00%
	Clariant International AG	Muttenz	100.00%	100.00%	100.00%	100.00%
	Clariant Oil Services AG	Muttenz	80.00%	80.00%	80.00%	80.00%
	Clariant Chemical Consulting AG	Muttenz	100.00%	100.00%	100.00%	100.00%
	Clariant Prime AG	Muttenz	100.00%	100.00%	100.00%	100.00%
	Clariant Pro AG	Muttenz	100.00%	100.00%	100.00%	100.00%
	Colorants International AG	Muttenz	100.00%	100.00%	100.00%	100.00%
Thailand	Clariant (Thailand) Ltd.	Bangkok	100.00%	100.00%	100.00%	100.00%
Turkey	Clariant (Türkiye) A.S.	Gebze	100.00%	100.00%	100.00%	100.00%
UAE	Clariant (Gulf) FZE	Dubai	100.00%	100.00%	100.00%	100.00%
USA	Clariant Corporation	Charlotte	100.00%	100.00%	100.00%	100.00%

For further details on shareholdings indirectly held by Clariant Ltd, see note 37, Important subsidiaries of this report.

6. Other current non-interest-bearing liabilities

Other current non-interest bearing liabilities amount to CHF 182 953 864 at the end of 2020 compared to CHF 73 696 526 at the end of 2019. They comprise third party liabilities of CHF 12 266 501 (compared to CHF 14 468 449 at the end of 2019) and intragroup liabilities of CHF 170 687 363 (compared with CHF 59 228 077 at the end of 2019).

Liabilities to other Group companies mainly comprise a transfer of shareholdings, shareholder costs payable to Clariant International Ltd and to Colorants International Ltd and to Clariant Plastics & Coatings Ltd for the prior year.

7. Other current interest-bearing liabilities

Other current interest bearing liabilities amount to CHF 620 205 551 at the end of 2020 (2019: CHF 407 346 090). They comprise third party liabilities of CHF 329 130 020 (2019: CHF 395 307 100) and intragroup liabilities of CHF 291 075 531 (2019: CHF 12 038 990).

On 17 April 2020, the certificates of indebtedness issued in 2015 in the amount of EUR 150 million (CHF 162 million) reached marurity and were repaid.

On 26 October 2020 the certificates of indebtness issued in 2015 in the amount of EUR 212 million (CHF 229 million) reached maturity and were repaid.

On 24 April 2019 a bond issued in 2012 in the amount of CHF 285 million reached maturity and was repaid.

One certificate of indebtness issued in 2016 with a nominal value of EUR 55 million and two certificates of indebtness issued in 2016 with a nominal value of USD 227 million will mature in 2021 and were therefore reclassified to current interest bearing liabilities.

Since 16 December 2016, Clariant Ltd has an agreement for a CHF 445 million (2019: CHF 500 million) five-year multi-currency revolving credit facility (RCF) with two one-year extension options. The RCF is structured as a club deal with ten key relationship banks with equal stakes and contains an accordion option for an increase up to CHF 600 million. The RCF is structured as a »back-stop« facility for rating purposes to maintain Clariant's liquidity headroom. It contains customary covenants such as negative pledge, cross default, ownership change and restriction on disposals, mergers and subsidiary debt. The Group is required to maintain one financial covenant (debt leverage) that is tested at the end of each financial half year. The RCF has been extended until 16 December 2023.

The intragroup liabilities comprise the cash pool accounts and current accounts between group companies.

8. Share capital

Capital issued	31.12.2020	31.12.2019
Number of registered shares each with a par value of CHF 3.70 (2019: CHF 3.70)	331 939 199	331 939 199
In CHF	1 228 175 036	1 228 175 036

Conditional capital	31.12.2020	31.12.2019
Number of registered shares each with a par value of CHF 3.70 (2019: CHF 3.70)	3 811 886	3 811 886
In CHF	14 103 978	14 103 978

9. Reserves

General reserves must be at least 20 % of the share capital of Clariant Ltd as this is the minimum amount required by the Swiss Code of Obligations.

As from 2011, if certain conditions are met, qualifying capital contributions made to Clariant Ltd by its shareholders since 1997 can be distributed without being subject to Swiss withholding tax. Qualifying capital contribution reserves of approximately CHF 1.7 billion are confirmed by the Swiss Federal Tax Administration (SFTA).

The SFTA is of the opinion that capital contribution reserves which were formerly offset with losses of CHF 1.26 billion will not qualify as capital contribution reserves anymore (even if compensated with newly generated retained earnings). The Swiss Administrative Court confirmed the SFTA's view in a particular case (decision of 4 June 2015, A-6072/2013), whilst the Swiss Supreme Court (as the highest Swiss court level) has up to now not dealt with this question. Clariant Ltd does not unconditionally share the above mentioned opinion. This is why potential capital contribution reserves are also documented as capital contribution reserves in the balance sheet.

10. Treasury shares

	2020	2019
Holdings at 1 January	**2 586 765**	**2 250 664**
Shares purchased at fair market value	34 000	572 000
Shares transferred to employees and Board of Directors	–235 256	–235 899
Holdings on 31 December	**2 385 509**	**2 586 765**

Each registered share has a par value of CHF 3.70 (2019: CHF 3.70)

The average price of shares bought in 2020 was CHF 17.02. In 2019 the average price of shares bought was CHF 18.14.

In 2020 and 2019 no shares were sold.

The profit or loss from the sale of own shares is recorded in the income statement as other finance income or other expenses.

11. Reconciliation of equity

in CHF	Share capital	Statutory capital reserves from capital contribution [1]	Statutory capital reserves from retained earnings [2]	Other statutary reserves	Voluntary retained earnings	Treasury shares	Net income	**Total**
Balance 31 December 2019	**1 228 175 036**	**2 094 200 965**	**–1 264 297 991**	**—**	**1 277 300 539**	**–47 188 494**	**11 295 791**	**3 299 485 846**
Reclassification of profit carryforward to voluntary retained earnings					11 295 791		–11 295 791	—
Reclassification from voluntary retained earnings to statutory reserves				220 000 000	–220 000 000			—
Reclassification		–785 985 551			785 985 551			—
Distribution					–988 661 070			–988 661 070
Changes in treasury shares						3 671 421		3 671 421
Profit for the financial year							271 260 385	271 260 385
Balance 31 December 2020	**1 228 175 036**	**1 308 215 414**	**–1 264 297 991**	**220 000 000**	**865 920 811**	**–43 517 073**	**271 260 385**	**2 585 756 582**

[1] In 2012, the Swiss Federal Tax Administration confirmed qualifying capital contribution reserves of approximately CHF 1.7 billion (as per 31 December 2020 due to distributions still amounting of approximately CHF 40 million). For further information see also note 9 to the financial statements of Clariant Ltd.

[2] This amount corresponds to capital contribution reserves formerly offset with losses. For further information see also note 9 to the financial statements of Clariant Ltd..

12. Financial liabilities

in CHF	Interest rate	Term	**Amount 31.12.2020**	Amount 31.12.2019
Non-current interest bearing liabilities to third parties				
Certificate of indebtedness	mixed	2015-2020	–	162 679 500
Certificate of indebtedness	1.012	2016-2020	–	171 727 450
Certificate of indebtedness	6m EURIBOR+1.05	2016-2020	–	60 900 150
Certificate of indebtedness	0.779	2016-2021	60 128 700	60 191 415
Certificate of indebtedness	3m LIBOR +1.5	2016-2021	161 498 080	161 498 080
Certificate of indebtedness	2.618	2016-2021	107 503 240	107 503 240
Straight bond	3.500	2012-2022	175 000 000	175 000 000
Certificate of indebtedness	mixed	2020-2022	123 706 945	–
Certificate of indebtedness	3m LIBOR+1.5	2020-2022	37 500 000	–
Certificate of indebtedness	mixed	2015-2023	162 061 500	162 679 500
Certificate of indebtedness	6m EURIBOR+1.1	2016-2023	14 084 200	14 098 890
Certificate of indebtedness	1.137	2016-2023	28 710 100	28 740 045
Certificate of indebtedness	1.501	2016-2023	80 651 550	80 651 550
Straight bond	2.125	2014-2024	160 000 000	160 000 000
Certificate of indebtedness	1.194	2018-2024	103 868 000	103 868 000
Certificate of indebtedness	1.548	2018-2025	115 722 500	115 722 500
Certificate of indebtedness	6m EURIBOR +0.95	2018-2025	60 401 500	60 401 500
Certificate of indebtedness	6m EURIBOR+1.9	2020-2025	89 674 030	–
Certificate of indebtedness	3m EURIBOR+1.80	2020-2025	25 000 000	–
Certificate of indebtedness	2.010	2016-2026	15 910 850	15 910 850
Straight bond	1.125	2019-2026	200 000 000	200 000 000
Certificate of indebtedness	2.087	2018-2028	19 193 000	19 193 000
Total straight bonds and certificates of indebtedness			**1 740 614 195**	**1 860 765 670**
Other non-current interest-bearing liabilities to banks and other financial institutions			5 553 922	5 899 210
Total interest bearing liabilities			**1 746 168 117**	**1 866 664 880**
Less: Other current interest bearing liabilities			–329 130 020	–395 307 100
Total non-current interest bearing liabilities to third parties			**1 417 038 097**	**1 471 357 780**
Total non-current interest bearing liabilities			**1 417 038 097**	**1 471 357 780**
Breakdown by maturity				
one to five years			1 181 934 247	1 056 169 145
more than five years			235 103 850	415 188 635
Total non-current interest bearing liabilities			**1 417 038 097**	**1 471 357 780**

On 22 May 2020 Clariant issued five certificates of indebtedness with the total amount of EUR 197.5 million and CHF 62.5 million. These certificates have terms of 2 years expiring on 23 May 2022 (EUR 114.5 million and CHF 37.5 million) and 5 years expiring on 22 May 2025 (EUR 83 million and CHF 25 million). While a tranche of CHF 62.5 million has a variable interest of 3 months CHF-LIBOR

plus spread that ranges between 1.50 % and 1.80 % and a tranche in the amount of EUR 110.5 million has a variable interest rate of 6 months EURIBOR plus spread that range between 1.45 % and 1.90 %, the fixed interest rate is 1.45 % for a tranche in the amount of EUR 87 million.

On 15 April 2019 new bonds in the amount of CHF 200 million were launched with a term of 7 years and a fixed interest rate of 1.125 % p.a.

13. Contingent liabilities

in CHF m	**Outstanding liabilities 31.12.2020**	Outstanding liabilities 31.12.2019
Outstanding liabilities as guarantees in favor of Group companies	458	407

Clariant Ltd belongs to the Swiss value-added tax (VAT) group of Clariant, and thus carries joint liability to the Swiss federal tax authority for value-added tax of the Swiss entities of that group.

In 2017 the European Commission (Antitrust) initiated an investigation on Clariant and some of its competitors active in the ethylene purchasing sector in some members states. One of Clariant Ltd's subsidiaries set up a provision of CHF 231 million for this case in 2019. In 2020 the case was settled with a fine of CHF 166 million, which was paid in December 2020. The excess amount of the provision of CHF 55 million was reversed.

14. Shareholdings of members of the Board of Directors and the Executive Committee

1. Board of Directors

SHARES HELD

Name	**Number of shares granted**[1]	**Value of shares granted**	Number of shares granted[2]	Value of shares granted[2]	**Number of privately held shares**	Number of privately held shares
	for 2020	**for 2020**	**for 2019**	**for 2019**	**for 2020**	**for 2019**
Hariolf Kottmann	16667	300000	13090	300023	449573[3]	430750
Dr. Khaled Homza A. Nahas	–	30000[5]	5236	120009	–	2594
Abdullah Mohammed Alissa	6667	120000	4364	100023	6525	2161
Günter von Au	5556	100000	4364	100023	68863	64499
Calum MacLean	5556	100000	4364	100023	6525	2161
Geoffery Merszei	5556	100000	4364	100023	6525	2161
Eveline Saupper	5556	100000	4364	100023	24388	20024
Peter Steiner	5556	100000	4364	100023	18388	14024
Claudia Suessmuth Dyckerhoff	5556	100000	4364	100023	19488	15124
Susanne Wamsler	5556	100000	4364	100023	1185180[4]	1175286[4]
Konstantin Winterstein	5556	100000	4364	100023	6086903	6082539
Nader Alwehibi	4167	75000	–	–	–	–
Thilo Mannhardt	4167	75000	–	–	–	–
Carlo G. Soave	–	25000[5]	4364	100023	n.a.	40778
Total	**76116**	**1425000**	**61966**	**1420262**	**7872358**	**7852101**

[1] Final number of shares for the mandate year will be defined prior to grant in 2021. Underlying assumption here is a share price of CHF 18.00.

[2] Correction needed due to adjustments of final share price at grant: Underlying assumption was CHF 21.50; Final allocation of shares with CHF 22.92; therefore, the numbers of shares differ from the overview in the Integrated Report 2019.

[3] Additionally 542 shares in vesting on 31 Dec 2020 resulting from previous years' participation in LTI plans as CEO.

[4] Thereof 240271 held by »The Honoré T. Wamsler Trust«.

[5] Pro rata cash payment for 2020 instead of shares.

No options were granted to members of the Board of Directors for the years 2020 and 2019, nor did any member of the Board of Directors hold any options in those years.

For detailed information regarding emoluments of the Board of Directors and the Executive Committee, please refer to the Compensation Report.

2. Executive Committee

SHARES HELD

Name	**Number of shares granted for 2020**	**Value of shares granted for 2020**	Number of shares granted for 2019	Value of shares granted for 2019	**Number of shares within vesting period 31.12.2020**	Number of shares within vesting period 31.12.2019	**Number of privately held shares 31.12.2020**	Number of privately held shares 31.12.2019
Hans Bohnen	58 276[5]	750 012	47 141	750 013	112 381	62 259	124 049	100 625
Bernd Hoegemann	58 276[5]	750 012	n.a.[1]	n.a.[1]	79 299	26 758	59 495	56 899
Stephan Lynen	58 276[5]	750 012	n.a.[2]	n.a.[2]	78 799	n.a.	89 595	n.a.
Former Members	n.a.	n.a.	68 697[3]	1 074 196	n.a.	94 052	n.a.	417 686[4]
Total	**174 828**	**2 250 036**	**115 838**	**1 824 209**	**270 479**	**183 069**	**273 139**	**575 210**

[1] No grant in 2019; only became EC member in 2019 after grant date.

[2] No grant in 2019; only became EC member in 2020.

[3] Former members include Patrick Jany for full year, Ernesto Occiello (CEO) and Christian Kohlpaintner pro-rated due to resignation in 2019.

[4] Former member Patrick Jany with resignation in 2020.

[5] Performance Share Units represent contingency rights that will be converted into shares depending on the performance achievement after the 3-year vesting period.

No options were granted to members of the Executive Committee for the years 2020 and 2019, nor did any member of the Executive Committee hold any options in those years.

For detailed information regarding emoluments of the Board of Directors and the Executive Committee, please refer to the Compensation Report.

15. Voting and legal registration limitations

In accordance with article 5 of the Articles of Incorporation, no limitations exist with regard to registration of shares which are acquired in one's own name and on one's own account. Special rules exist for nominees.

In accordance with article 13 of the Articles of Incorporation, each share has the right to one vote.

16. Significant shareholdings of 3 % or more of total share capital

Based on the notifications received by Clariant and published by SIX Exchange Regulation, as at 31 December 2020 the following shareholders held more than 3 % of voting rights in Clariant Ltd:

Shareholders	Voting rights
SABIC International Holdings B.V., Sittard, The Netherlands, controlled by the Public Investment Fund of Saudi Arabia (PIF), Riyadh, Kingdom of Saudi Arabia	32.22 %[1]
APG Asset Management N.V., Amsterdam, Netherlands	5.01 %
BlackRock Inc., New York, United States	3.8 %
Blue Beteiligungsgesellschaft mbH, Am Holzmaierfeld, 82064 Strasslach-Dingharting (Germany) and Maple Beteiligungsgesellschaft mbH, Am Holzmaierfeld, 82057 Icking (Germany)[2]	3.49 %

[1] SABIC acquired 24.99 % of the shares of Clariant Ltd on 17 September 2018, and increased its participation by 6.51 % to 31.5 % on 9 September 2020. The difference between this figure (i.e. 31.5 %) and the above-mentioned 32.22 % corresponds to the amount of treasury shares held by Clariant Ltd which have to be aggregated to the shares held by SABIC solely for regulatory disclosure purposes due to the Governance Agreement entered into by SABIC and Clariant on 17 September 2018.

[2] According to a disclosure notification published on 18 December 2018, a group consisting of Konstantin Winterstein, 80333 Munich, Germany, and Elisabeth Prinzessin zu Sayn-Wittgenstein, 80333 Munich, Germany, was formed.

Disclosure notifications during the financial year 2020 reported to the Stock Exchange Disclosure Office pursuant to Art. 120 of the Financial Markets Infrastructure Act (FMIA) as well as further information in relation to disclosure notifications can be found on the SIX Swiss Exchange reporting platform: www.six-exchange-regulation.com/en/home/publications/significant-shareholders.html

On 31 December 2019, the following shareholders held a participation of 3 % or more of the total share capital: SABIC International Holdings B.V., Sittard, The Netherlands, controlled by the Public Investment Fund of Saudi Arabia (PIF), Riyadh, Kingdom of Saudi Arabia 25.67 %; APG Asset Management N.V., Amsterdam, Netherlands: 5.01 %; Blue Beteiligungsgesellschaft mbH, Am Holzmaierfeld, 82064 Grossdingharting (Germany), and Maple Beteiligungsgesellschaft mbH, Am Holzmaierfeld, 82064 Grossdingharting (Germany): 3.49 %; Citadel Multi-Strategy Equities Master Fund Ltd., George Town, Cayman Islands, Citadel Securities Financial Trading (Ireland) DAC, Dublin, Ireland, Citadel Global Equities (Ireland) DAC, Dublin, Ireland, Citadel Global Equities Master Fund Ltd., George Town, Cayman Islands, Citadel Multi-Strategy Equities (Ireland) DAC, Dublin, Ireland, Citadel Quantitative Strategies Master Fund Ltd., George Town, Cayman Islands: 3.285 %; Millennium Partners LP, George Town, Cayman Islands Integrated Core Strategies Asia Pte.Ltd., Singapore: 3.04 %.

At 31 December 2020, Clariant AG itself held 2 385 509 shares in treasury, corresponding to 0.72 % of the share capital.

17. Events subsequent to the balance sheet date

On 1 February 2020, Clariant announced that the Board of Directors recommends to the shareholders of the Company a regular distribution from paid-in share capital of CHF 0.70 per share. This would include CHF 0.55 per share for the fiscal year 2019 and CHF 0.15 per share for 2020. Agreeing to the agenda items proposed by the Board of Directors, the anchor shareholder SABIC withdraws its own proposals for the agenda of the Annual General Meeting, sent to the Company at the end of December 2020. This included a special distribution to shareholders in the amount of up to CHF 2.00 per share.

Appropriation of available earnings

The Board of Directors proposes to appropriate the profit of 2020 of Clariant Ltd in the amount of CHF 271 260 385 as follows.

Annual result	in CHF
Carried forward from previous year	—
Profit for the year 2020	271 260 385
Total available earnings	**271 260 385**

Appropriation	in CHF
Voluntary retained earnings as at Dec. 31, 2020	865 920 811
Transfer to voluntary retained earnings	271 260 385
Voluntary retained earnings as at Jan. 1, 2021	1 137 181 196
Balance to be carried forward	0

Proposed distribution through capital reduction by way of a par value reduction

The Board of Directors proposes (in place of a dividend) a distribution through capital reduction by way of a par value reduction of CHF 0.70 per registered share, as a result of a reduction of the par value from CHF 3.70 to CHF 3.00 per registered share. The proposed payout would reduce the share capital by CHF 232 357 439.30.

The proposed payout of the par value reduction of CHF 0.70 is subject to approval by the ordinary General Meeting of shareholders and subject to the fulfillment of the necessary requirements and the entry of the share capital reduction in the Commercial Register of the Canton of Baselland.

If approved by the Annual General Meeting the payment will be made as soon as practicable, following the expiry of the two-month-period pursuant to article 733 Swiss Code of Obligations and the subsequent registration of the share capital reduction in the Commercial Register.

Report of the statutory auditor

to the General Meeting of Clariant Ltd

Muttenz

Report on the audit of the financial statements

Opinion

We have audited the financial statements of Clariant Ltd, which comprise the balance sheets as at 31 December 2020, income statements and notes for the year then ended, including a summary of significant accounting policies.

In our opinion, the financial statements (pages 72 to 82) as at 31 December 2020 comply with Swiss law and the company's articles of incorporation.

Basis for opinion

We conducted our audit in accordance with Swiss law and Swiss Auditing Standards. Our responsibilities under those provisions and standards are further described in the "Auditor's responsibilities for the audit of the financial statements" section of our report.

We are independent of the entity in accordance with the provisions of Swiss law and the requirements of the Swiss audit profession and we have fulfilled our other ethical responsibilities in accordance with these requirements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Our audit approach

Overview



Overall materiality: CHF 20 million

We tailored the scope of our audit in order to perform sufficient work to enable us to provide an opinion on the financial statements as a whole, taking into account the structure of the entity, the accounting processes and controls, and the industry in which the entity operates.

As key audit matter, the following area of focus has been identified:

- Valuation of shareholdings in and loans to Group companies

Materiality

The scope of our audit was influenced by our application of materiality. Our audit opinion aims to provide reasonable assurance that the financial statements are free from material misstatement. Misstatements may arise due to fraud or

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error. They are considered material if, individually or in aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of the financial statements.

Based on our professional judgement, we determined certain quantitative thresholds for materiality, including the overall materiality for the financial statements as a whole as set out in the table below. These, together with qualitative considerations, helped us to determine the scope of our audit and the nature, timing and extent of our audit procedures and to evaluate the effect of misstatements, both individually and in aggregate, on the financial statements as a whole.

Overall materiality	CHF 20 million
How we determined it	0.4% of total assets
Rationale for the materiality benchmark applied	We chose total assets as the benchmark because, in our view, it is the most relevant measure for the activities of Clariant Ltd as a holding company.

We agreed with the Audit Committee that we would report to them misstatements above CHF 1 million identified during our audit as well as any misstatements below that amount which, in our view, warranted reporting for qualitative reasons.

Audit scope

We designed our audit by determining materiality and assessing the risks of material misstatement in the financial statements. In particular, we considered where subjective judgements were made; for example, in respect of significant accounting estimates that involved making assumptions and considering future events that are inherently uncertain. As in all of our audits, we also addressed the risk of management override of internal controls, including among other matters consideration of whether there was evidence of bias that represented a risk of material misstatement due to fraud.

Report on key audit matters based on the circular 1/2015 of the Federal Audit Oversight Authority

Key audit matters are those matters that, in our professional judgement, were of most significance in our audit of the financial statements of the current period. These matters were addressed in the context of our audit of the financial statements as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on these matters.

Valuation of shareholdings in and loans to Group companies

Key audit matter	How our audit addressed the key audit matter
We consider the valuation of shareholdings in and loans to Group companies to be a key audit matter owing to the significant scope for judgement involved with respect to the assumptions and the discount rates applied for the valuations of the shareholdings as well as to the significance of these shareholdings and loans on the balance sheet. Please refer to pages 74 to 75 (Shareholdings in Group companies, note 5) in the notes to the financial statements.	We evaluated and challenged management's assumptions and the discount rates applied for the valuations of the shareholdings. We assessed management's process in grouping together certain shareholdings and the application of generally accepted valuation methods to calculate their value. We tested the calculation method and we compared the input figures used with the Group's accounting records. We also compared the actual results of the year under review with the figures included in the forecasts made in the prior year in order to assess with hindsight whether any of the assumptions underlying the forecasts might have been too optimistic. We assessed the assumptions relating to the forecasts and found them to be consistent with actual developments and reasonable. We involved PwC valuation specialists to assess the discount rates by comparison with market information.

We also tested the valuations of the loans to group companies based on these companies' financial positions.

On the basis of work performed, we consider the approach, assumptions and discount rates used by management to support the carrying value of the shareholdings in and loans to Group companies to be reasonable.

Responsibilities of the Board of Directors for the financial statements

The Board of Directors is responsible for the preparation of the financial statements in accordance with the provisions of Swiss law and the company's articles of incorporation, and for such internal control as the Board of Directors determines is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, the Board of Directors is responsible for assessing the entity's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless the Board of Directors either intends to liquidate the entity or to cease operations, or has no realistic alternative but to do so.

Auditor's responsibilities for the audit of the financial statements

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with Swiss law and Swiss Auditing Standards will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements.

A further description of our responsibilities for the audit of the financial statements is located at the website of EXPERTsuisse: http://expertsuisse.ch/en/audit-report-for-public-companies. This description forms part of our auditor's report.

Report on other legal and regulatory requirements

In accordance with article 728a paragraph 1 item 3 CO and Swiss Auditing Standard 890, we confirm that an internal control system exists which has been designed for the preparation of financial statements according to the instructions of the Board of Directors.

We further confirm that the proposed appropriation of available earnings complies with Swiss law and the company's articles of incorporation. We recommend that the financial statements submitted to you be approved.

PricewaterhouseCoopers AG



Rolf Johner

Audit expert
Auditor in charge



Michael Scheibli

Audit expert

Basel, 9 February 2021

Forward-looking statements

Forward-looking statements contained herein are qualified in their entirety as there are certain factors that could cause results to differ materially from those anticipated. Investors are cautioned that all forward-looking statements involve risks and uncertainty. In addition to the factors discussed above, among the factors that could cause actual results to differ materially are the following: the timing and strength of new product offerings; pricing strategies of competitors; the company's ability to continue to receive adequate products from its vendors on acceptable terms, or at all, and to continue to obtain sufficient financing to meet its liquidity needs; and changes in the political, social and regulatory framework in which the company operates or in economic or technological trends or conditions, including currency fluctuations, inflation and consumer confidence, on a global, regional, or national basis.

CLARIANT

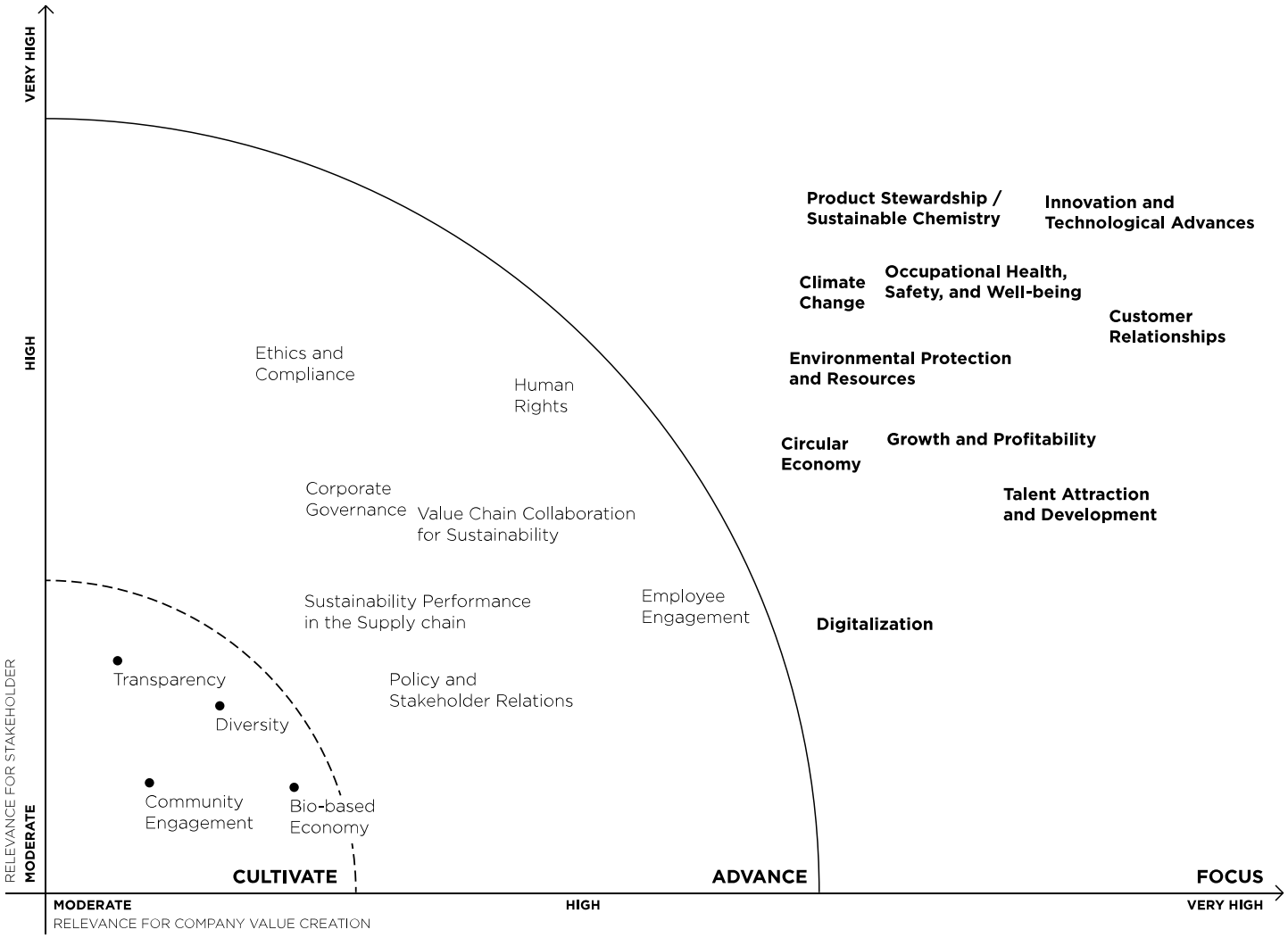
GRI Report
2020

what is precious to you?

Introduction

The GRI Report 2020 is integral to Clariant's corporate reporting suite, providing comprehensive insights into Clariant's sustainable value creation. For each material topic in the »Focus« and »Advance« categories — as presented in the materiality matrix — Clariant outlines a management approach according to the GRI Standards, as well as the corresponding topic-specific GRI disclosures.[1]

Materiality Matrix



More in-depth information on Clariant's holistic approach to financial and non-financial value creation can be found in the following reports:

Integrated Report 2020

Financial Report 2020

Corporate Governance Report 2020

Compensation Report 2020

[1] For the material topic »Corporate Governance,« the information is not presented in a management approach, as it is reported in detail in the online Corporate Governance Report. Information about the material topic »Value Chain Collaboration for Sustainability« is covered by several other topics. Therefore, no separate management approach is presented in this report.

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GRI Report 2020

MATERIAL TOPICS – FOCUS

Circular Economy

Management Approach

103-1 Explanation of the material topic and its boundary

Reason for materiality

Increasing awareness of planetary resource limits has highlighted the circular economy as a necessary alternative to the current linear economic model. The circular economy is driven by sustainability ambitions and policy objectives linked to climate change, environmental protection, and resource efficiency, as well as resource scarcity. Policy examples include the European Union Circular Economy Action Plan and Plastics Strategy, the waste ban in China, as well as a multitude of other plastic sustainability initiatives around the globe. In addition, the circular economy promotes the opportunity to reinvent today's unsustainable take-make-dispose economy and its associated production and consumption patterns.

Contribution to value creation

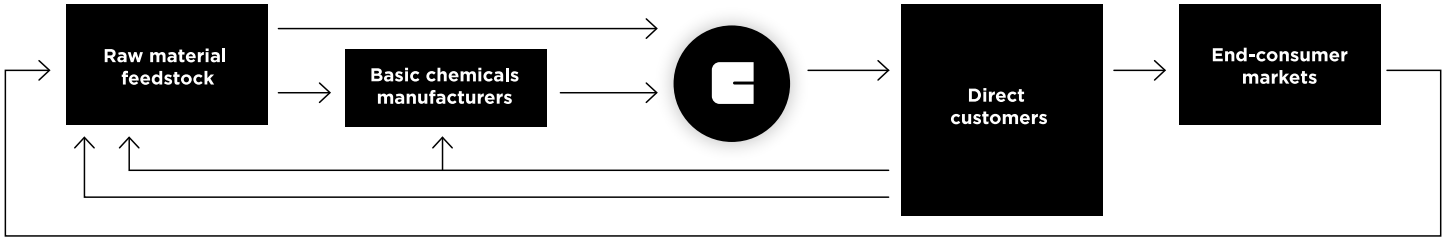
Clariant is committed to supporting the transition toward a circular economy and is engaged in projects and activities that promote a more resource-efficient and sustainable society. Unnecessary material losses throughout the life cycle of products negatively impact business competitiveness and the environment. In contrast, ongoing circulation of materials and products benefits both business and the environment. A circular economy has the potential to support additional business opportunities and product or service developments, given emerging regulations and customer markets that are advancing on circular business models.

Boundary

Within Clariant's operations, opportunities for advancing the circular economy include energy, materials, and other resources that affect operational efficiency and costs. Company efforts in the field are closely linked to its environmental-protection and resource-efficiency objectives. The circular economy goes beyond Clariant's own operations, however, and includes analyzing the life cycle of products and business models to support a more circular society that uses less

while reusing and recycling more. Supporting a circular economy thus has a strong value-chain orientation, seeking to connect waste-material loops and linking directly to innovations driven by sustainability considerations.

Impact in the value chain



103-2 The management approach and its components

Responsibilities and resources

Opportunities offered by an increasingly circular economy are evaluated across several company functions. Among them are Sustainability Transformation, Group Technology and Innovation (GTI) as well as the different Business Units. The future Group Innovation and Sustainability will lead the efforts on the circular economy. Further, with EcoCircle and the associated Centers of Excellence, Clariant has started to establish dedicated sites for development of products for a circular plastics economy. Specialized teams and facilities allow Clariant to channel expertise and develop specialty products for specific circular topics.

Goals and targets

Clariant established targets regarding resource efficiency and sustainable production with its 2025 environmental targets, which are being reported under the topic »Environmental Protection and Resources.«

Further components

Clariant's contributions to a circular economy are manifold. They include continuously increasing eco-efficiency of production processes, choosing waste and renewable resources instead of virgin or fossil ones where suitable, process redesign, reducing water and energy use, closed-loop recycling at sites, industrial symbiosis, and value-chain clusters.

Promoting a circular economy is fueled by the development of new products and technologies. Clariant's wide range of innovative stabilizers and pigments supports obtaining higher-value plastics from recycling streams, while other products focus on increasing durability of materials.

In order to foster symbiosis and promote circularity along the whole value chain, Clariant is represented in the following organizations:

- Alliance to End Plastic Waste (founding member)
- Cefic's Circular Economy Working Group
- Circular Economy Initiative Deutschland (CEID)
- WBCSD Factor 10 and Circular Electronics Partnership
- WEF Low Carbon-Emitting Technology initiative, with Clariant supporting especially the work streams Biomass Utilization and Waste Processing
- Numerous local associations

103-3 Evaluation of the management approach and measurement

Evaluation and outcome

Clariant reviews risks and opportunities associated with the circular economy as part of the corporate strategy management process. This structured approach further outlines, anchors, and advances the topic within Clariant's Business Units. In 2020, a tangible outcome of this review was the inclusion of circularity as one of the four key pillars of Clariant's sustainability focus areas.

GRI 301:2016 Materials

301-1 Materials used by weight or volume

✔ PwC CH

in m t	2016	2017	2018	2019[1]	2020
Total weight or volume of materials that are used to produce the organization's primary products and services during the reporting period	4.48	4.86	4.6	4.50	4.10
Total production	4.09	4.6	4.34	4.25	4.10

[1] Every three years, Clariant validates environmental data from all production sites. The last full reporting campaign was in 2020 with 100% coverage from all production sites. In the interim years, including 2019, the reduced reporting scope comprises the larger sites responsible for 95% of total production.

301-2 Recycled input materials used

Clariant tries to use recycled materials in production wherever possible. However, the percentage is low due to the nature of the production processes as recycled raw materials often cannot be used due to purity or safety standard requirements.

301-3 Reclaimed products and their packaging materials

When supplying customers, Clariant provides mostly reusable packaging, which can be returned to Clariant for cleaning and reuse. Other products are shipped as bulk goods in tank trucks and rail tank cars or silo trucks. To the extent possible, nonreusable packaging is recycled for material purposes or, especially in the case of hazardous materials, used to generate energy.

Climate Change

Management Approach

103-1 Explanation of the material topic and its boundary

Reason for materiality

The discussion on how to halt and mitigate climate change is in full swing as its potential impacts, such as shifting weather and risk of flooding, are intensifying. If global warming cannot be contained to a safe level, society at large and thus Clariant's business and its markets can be seriously impaired.

An increasing number of business stakeholders are focusing on the issue: customers are demanding low-carbon alternatives, while financial players show a growing interest in climate-resilient companies. In addition, more corporations are opting for renewable energy sources for business operations.

As the environmental performance of companies continues to gain importance, Clariant aims to actively contribute to a carbon-neutral economy, helping the company to maintain or increase its customer base and to enhance its reputation.

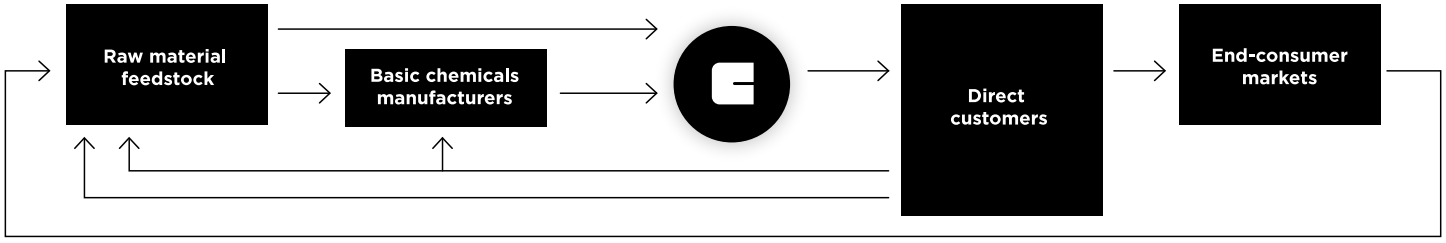
Contribution to value creation

Clariant contributes to avoiding greenhouse gas emissions with its numerous sustainable products, ranging from catalysts to second-generation bioethanol solutions. Clariant also reduces its own carbon emissions through the optimization of its operations. Decreasing materials and energy consumption reduces cost and further increases the company's competitiveness.

Boundary

Climate change is relevant for Clariant's own operations, its customers, its global supply chains, as well as the entire life cycle of its products.

Impact in the value chain



103-2 The management approach and its components

Responsibilities and resources

At Clariant, managing climate change is the responsibility of the new organization Group Innovation & Sustainability (GIS) and Group Operational Excellence (GOE). Within GIS, the topic is managed by the Sustainability Transformation teams, and within GOE, by the Corporate Environmental, Safety, and Health Affairs (ESHA) team. GIS and GOE are also working closely with other departments, such as Group Procurement Services, as well as different Business Units that develop low-carbon and climate-friendly solutions.

Goals and targets

To abate its climate impact, Clariant pursues ambitious environmental targets. These targets are an integral part of Clariant's planning and investment strategy. The current targets are to be achieved by 2025. Compared to a 2013 baseline, Clariant aims to reduce energy consumption and direct CO_2 emissions by 30% and emissions from greenhouse gases (Scope 1 and 2) by 35%, each per metric ton of production.

In order to maintain a high level of ambition for the continuing operations, Clariant updated its environmental targets. To underscore its stance toward climate change, Clariant developed science-based greenhouse gas emissions targets. The targets and implementation measures have been developed by teams spanning different functions and Business Units. The project pipeline for Scope 1 and 2 emission reduction focuses on efficiency projects, the purchase of green electricity, and utilizing alternative, low-carbon fuels. To reduce Scope 3 emissions, Clariant focuses on replacing conventional raw materials with low-carbon alternatives.

The new targets set out ambitious absolute emission reductions in the company's Scope 1, 2, and 3 emissions. Clariant commits to reduce absolute scope 1 and 2 GHG emissions by 40% and scope 3 GHG emissions from purchased goods and services by 14% until 2030, from a 2019 base year.

Read more: clariant.com/en/Sustainability/Sustainability-Targets

Further components

Beyond Clariant's goals to reduce emissions, the company is running multiple initiatives related to energy management, such as Yield, Energy, Environment (YEE) and eWATCH™. eWATCH™ is a holistic energy efficiency program that identifies savings potential through detailed analyses of energy consumption across operations and energy purchases from utilities. With this program, Clariant focuses on utilities guaranteeing efficient and low-carbon energy supply, as well as efficient energy use in the entire production process.

Finally, Clariant and its Business Areas contribute to the fight against climate change with their sustainable offering. Climate change-related criteria, such as raw material sourcing, material efficiency, energy consumption, and greenhouse gas emissions, are part of Clariant's Portfolio Value Program (PVP), which integrates sustainability into the product portfolio and the innovation pipeline. With its EcoTain® label, Clariant identifies best-in-class solutions that address sustainability challenges such as climate change.

103-3 Evaluation of the management approach and measurement

Evaluation and outcome

Clariant monitors its climate impact by collecting and analyzing data on energy consumption and greenhouse gas emissions across its Business Units. Thus, Clariant keeps track of the trajectory necessary to achieve its environmental targets.

The newly set science-based targets have a clear roadmap of projects, a designated investment for low-carbon projects, and are supported by Global Management Bonus Plans. Major investments will also be evaluated against an internal carbon price. These will ensure a continuous improvement of Clariant's carbon footprint, limiting global warming in line with the Paris Climate Agreement.

GRI 305:2016 Emissions

305-1: Scope 1: Direct energy GHG emissions
305-2: Scope 2: Indirect energy GHG emissions
305-4: GHG emission intensity

✔ PwC CH	2016	2017	2018	2019[1]	2020[3]
Total emissions (in m tCO_2e)	**0.89**	**0.97**	**0.93**	**0.86[2]**	**0.83**
in kg/t production	218	211	215	202[2]	205
Gross direct (Scope 1) GHG emissions (in m tCO_2e)	0.41	0.44	0.43	0.40[2]	0.39
Direct emissions (Scope 1) in kg/t production	101	95	98	93	96
Gross location-based energy indirect (Scope 2) GHG emissions (in m tCO_2e)	0.48	0.53	0.51	0.46	0.41
Indirect emissions (Scope 2) in kg/t production	117	116	117	109	108

[1] Every three years, Clariant validates environmental data from all production sites. The last full reporting campaign was in 2020 with 100% coverage from all production sites. In the interim years, including 2019, the reduced reporting scope comprises the larger sites responsible for 95% of total production.

[2] Figure for 2019 restated due to improved data quality and completeness for energy consumption, which is directly linked to emissions data.

[3] First half-year 2020 data for Business Unit Masterbatches are estimated based on the last full reporting campaign in 2017.

Direct greenhouse gas emissions result largely from the combustion processes operated by Clariant and are proportional to the amount of carbon in the fuels burned. Emissions of greenhouse gases, such as methane and nitrous oxide (N_2O), are measured locally and integrated into the consolidated calculation. Indirect greenhouse gas emissions result from external energy procurement, predominantly in the form of electricity and steam. Their emergence correlates with the type of production and the amount produced, and they are less influenced by Clariant than direct emissions.

To calculate Scope 1 emissions, stoichiometric emission factors of the primary fuels are applied. To calculate Scope 2 emissions, either specific emission factors from the local providers or country grid factors, which are published by the GHG Protocol, are used. For internal and ISO 50001 reporting, the eWATCH™ team calculates site-specific conversion factors in close interaction with site energy managers. These factors help benchmark the carbon intensity of different energy carriers and utilities and may pinpoint operational improvements. Taking into account the efficiency of individual utility plants leads to a continuous optimization toward the theoretical limit.

The amount of all greenhouse gases (expressed in CO_2 equivalents) decreased from 0.86 million t to 0.83 million t, mainly due to the change of ownership of a site in Muttenz, Switzerland, from Infraserv to Clariant, as well as a shift away from heating oil to natural gas and the purchase of green electricity at certain sites. Emissions per ton of production slightly increased from 202 to 205 kg.

305-3: Other indirect (Scope 3) GHG emissions

✔ PwC CH	2017[1]	2018[1]	2019[1]	2019 continuing business[1]	2020	2020 continuing business
Gross indirect (Scope 3) GHG emissions (in m tCO_2e)	**4.65**	**5.10**	**4.78**	**3.73**	**4.20**	**3.34**
Purchased goods and services	3.31	3.58	3.44	2.72	3.12	2.46
Fuel- and energy-related activities (not included in Scope 1 or Scope 2)	0.30	0.27	0.29	0.14	0.27	0.13
Upstream transportation and distribution	0.13	0.17	0.17	0.12	0.12	0.11
Downstream transportation and distribution	0.12	0.12	0.14	0.13	0.12	0.12
End-of-life treatment of sold products	0.80	0.95	0.76	0.62	0.56	0.52

[1] The data has been restated in consideration of changes in estimates or discovery of errors in previous years' data as part of the 2030 sustainability target setting activities (with 2019 baseline)

To provide extensive reporting for the Dow Jones Sustainability Index (DJSI) and the Carbon Disclosure Project (CDP), as well as to develop a holistic climate strategy, Clariant reports on its Scope 3 emissions. Clariant focuses on the categories deemed most relevant for its business: purchased goods, fuel- and energy-related activities (not included in Scope 1 or 2), upstream and downstream transportation and distribution, and end-of-life treatment of sold products.

The categories and calculation methods are in line with the »Guidance for Accounting & Reporting Corporate GHG Emissions in the Chemical Sector Value Chain« issued by the World Business Council for Sustainable Development (WBCSD) and the GHG Protocol.

305-5: Reduction of GHG emissions

99 projects within Clariant's eWatch™ and YEE initiative delivered energy and CO_2-reduction benefits in 2020. Since 2013, a total of CHF 42.2 million was saved by implementing energy-efficiency measures. In 2019, Clariant managed to save CHF 4.9 million in energy cost through optimization and efficiency increases.

305-6: Emissions of ozone-depleting substances (ODS)

Clariant no longer uses ozone-depleting substances. Cooling agents, if relevant, are reported under greenhouse gases.

305-7: Nitrogen oxides (NO_X), sulfur oxides (SO_X), and other significant air emissions

✔ PwC CH

Significant air emissions in tons, for each of the following:	2016	2017	2018	2019[1]	2020
Total inorganic emissions	**973**	**930**	**847**	**839**	**915**
NO_X	512	634	618	613	540
SO_X	379	241	180	172	248
Hydrogen chloride HCl	58	40	33	33	45
Ammonia NH_3	24	14	16	21	82
Total organic emissions (VOCs)	**156**	**208**	**439**	**543**	**413**
Particle emissions (fine particles)					
in t	225	380	294	201	293
in g/t production	55	83	68	47	71

[1] Every three years, Clariant validates environmental data from all production sites. The last full reporting campaign was in 2020 with 100% coverage from all production sites. In the interim years, including 2019, the reduced reporting scope comprises the larger sites responsible for 95% of total production.

To calculate emissions, standard emission factors are applied that are based on stoichiometry and common waste gas treatment techniques. When available from suppliers, more specific local factors are used.

Customer Relationships

Management Approach

103-1 Explanation of the material topic and its boundary

Reason for materiality

Customer engagement lies at the core of Clariant's commercial strategy. Clariant is committed to creating added value for customers by delivering innovative, competitive, and sustainable solutions.

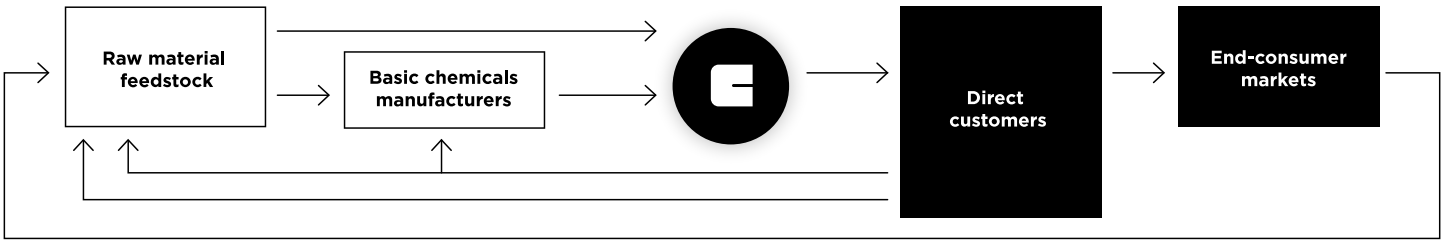
Contribution to value creation

Engaging with customers is essential to understand their needs and create continuous, profitable growth. After taking significant steps in recent years to turn Clariant from a product-driven into a customer-centric organization, Clariant aims to further strengthen the customer experience and increase interactions to uncover new business opportunities.

Boundary

All Business Units have installed a tailored marketing organization that focuses on strengthening relationships with customers.

Impact in the value chain



103-2 The management approach and its components

Responsibilities and resources

Clariant Commercial Excellence strengthens customer-centricity throughout the organization by continuously improving customer engagement and sales operations through ongoing dialogue with existing customers, new prospects, and other partners along the value chain. In January of 2021, Commercial Excellence became part of Corporate Planning & Strategy, creating an even stronger bond between driving strategy and executing strategy. Corporate Planning & Strategy reports to the Executive Committee.

Each Business Unit focuses on enhancing Clariant's customer-centricity through a tailored marketing organization. In every Business Unit, a global Head of Marketing leads a dedicated team of marketing professionals. To identify and capture profitable growth opportunities, marketing teams work closely with (technical) sales functions.

To strengthen exchange between marketing professionals, Clariant established a Marketing Advisory Board in 2018. It developed into a Commercial Advisory Board in 2019 and 2020 and included sales and pricing topics in addition to marketing since these topics are interconnected. It consists of the Business Units' Marketing Heads, the Head of Marketing Communication, the Head of Sustainability Strategy (Head of Sustainability Transformation as of mid-2020), and the 2 Heads of Commercial Excellence, who convene regularly to share best practices and drive further development of strategic commercial processes, tools, and capabilities, ensuring continuous improvement of the commercial organizations.

Further components

Within Corporate Planning & Strategy, the pricing, sales, and digital commercial teams support the Business Units in developing and implementing actionable commercial growth plans. They also accompany a growing number of initiatives on customer segmentation, cost-to-serve analysis, customer engagement, and value-based pricing and selling. In addition, the teams contribute to systematic capability building with a »Commercial Curriculum« for professionals in commercial and leadership functions.

After introducing a Marketing Essentials training in 2018, Clariant created a marketing training curriculum in collaboration with the renowned Kellogg School of Management at Northwestern University in the United States to foster commercial competencies across the organization in 2019. In 2020, Clariant continued the advanced marketing program with MarketEdge, in which participants focused on further deepening their marketing plans in an interactive workshop environment.

Clariant installed a new version of its Customer Relationship Management system in 2020 in order to improve and intensify customer relationships.

103-3 Evaluation of the management approach and measurement

Evaluation and outcome

In addition to the feedback received from customer interactions throughout the year, Clariant conducts a biennial survey to monitor customer satisfaction. This survey is a critical opportunity to learn about customers' perceptions of Clariant as a supplier and business partner, providing an invaluable outside-in perspective to improve touchpoints along the entire customer journey. The most recent customer satisfaction survey was conducted in 2020.

Indicators

Clariant tracks several indicators to monitor the success of its approach to marketing and customer engagement. One of the most important indicators is the additional margin generated from Commercial Excellence projects (in commercial margin), which gives a good indication of how well Clariant translates customer insights into profitable growth. Since 2014, this indicator has grown substantially from CHF 2 million to CHF 15.4 million in 2020, underscoring that Clariant is moving in the right direction toward true customer-centricity.

GRI 418:2016 Customer Privacy

418-1 Substantiated complaints concerning breaches of customer privacy and losses of customer data

In 2020, Clariant received no complaints from outside parties or regulatory bodies regarding data breaches of customer privacy or loss of customer data. Similarly, Clariant is not aware of any identified leaks, thefts, or losses of customer data.

Digitalization

Management Approach

103-1 Explanation of the material topic and its boundary

Reason for materiality

Digitalization is a megatrend that is reshaping the chemical industry. In response to the growing readiness of customers and suppliers to use digital tools, Clariant embarked on its transformation into a fully data-driven company to increase customer satisfaction, improve process performance, and lower costs. The company's digital transformation impacts all aspects of its business activities, from innovation to marketing and operations.

Contribution to value creation

Digitalization allows Clariant to anticipate and capitalize on trends in marketing and innovation. By using data science and digital formulation, including high-throughput experimentation, speed and quality of new product developments and related applications can be increased. This is particularly important for customers that are experiencing fast-changing demand due to the increase in online sales.

Clariant predicts that the buying behavior of younger buyers, who are accustomed to accessing information at any time, will be changing. As this could lead to more activity on internet platforms, Clariant is closely monitoring developments in this field. It uses platforms selectively (e.g., Alibaba's Chinese marketplace) and regularly reviews go-to-market approaches using platform channels.

Digitalization also enhances Clariant's solution-centric, go-to-market approach by offering additional digital insights and services to customers. In particular, the combination of chemical knowledge and data science enables Clariant to offer completely novel services. They can be provided to the market as stand-alone »software as a service« or as part of regular service packages. For sales analytics, Clariant utilizes data science-driven dashboards, which can improve sales forecasts or help the company gain better insights regarding the future payment behavior of customers.

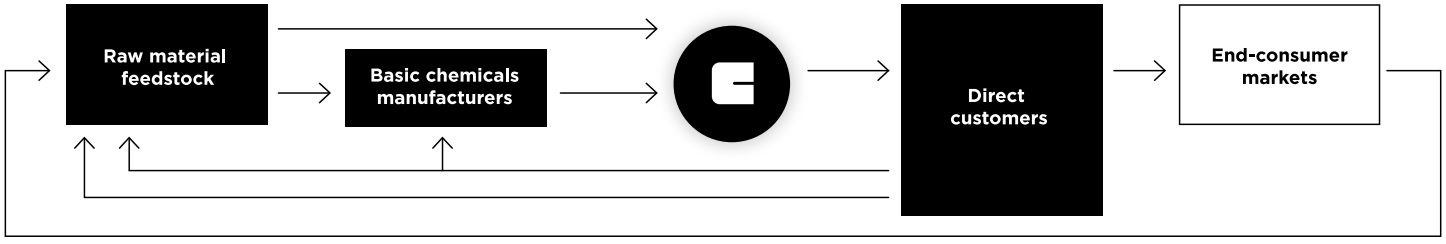
Regarding production and supply chain management, predictive process and quality control are expected to increase yields, lower energy consumption, and avoid bottlenecks in production, leading to increased speed, higher quality, and reduced costs. Clariant built a data lake—a central data repository that provides access to data and information across the organization—to facilitate the automated application of data science tools and identify potential process improvements, particularly in production and supply chain operations.

In procurement, digitalization allows Clariant to better predict prices and plan material flows. Data-driven tools help exploit price advantages, improve demand predictions and risk management, and facilitate strategic buying. Automated e-auctions allow Clariant to easily compare a large number of offers from suppliers, making the selection process more competitive and potentially lowering raw material prices. Tracking supplier performance helps increase supply stability and enhances monitoring of sustainability factors in the supply chain. By improving multilayer inventory, predictive planning tools are expected to lower net working capital and increase the On-Time, In-Full (OTIF) rate. In addition, digital tools will be required to ensure transparency along the value chain about greenhouse gas emissions in order to comply with potential future regulation.

Boundary

Digitalization impacts all stages along the value chain, from the sourcing of raw materials to the delivery of finished products and the provision of services.

Impact in the value chain



103-2 The management approach and its components

Responsibilities and resources

Digital4Clariant oversees and coordinates most of the novel digital activities at Clariant, namely the development of new digital business models, the transformation of existing business models, digitalizing operations, and enhancing data science. This cross-functional program is supported by top management and all of its workstreams and projects have steering committees, typically consisting of a member of the Executive Committee, the Head of the involved Business Unit, a member of the Business Unit's Management Committee, the Chief Information Officer, and the Head of Digital4Clariant.

In 2020, when some of the early workstreams had achieved their purpose, the program was adapted. Dedicated teams that were embedded in the organization took over the former workstreams and integrated the relevant topics into their routine tasks. Most notably, the digital@operations team and projects became governed by the newly instituted Operations Council. Similarly, the strategic topic of digital formulation development was taken over by the Innovation Committee, and the different functions working in this field were bundled under the umbrella of the Digital Formulation Factory.

As Clariant's biggest potential for growth and cost savings is in the field of data science, the dedicated Competence Center for Data Science, established in 2018, focuses on data intelligence and process simulations as part of Group Process Technology. It also institutionalizes the use of data science in formulation development via a Digital Formulation Factory.

Goals and targets

Goals and targets in the area of digitalization are set individually for each Business Unit and functional level.

Further components

Clariant's digital innovation approach is inspired by rapid innovation methods widely used in the technology sector. It incorporates elements of design thinking, agile project management, and SCRUM. To make sure that new solutions satisfy customer needs, Clariant starts its innovation sprints with customer interviews and continuously refines ideas based on customer feedback. As a principle, ideas are also rigorously sorted, embracing the spirit of fail fast, fail early, and fail cheaply.

To exploit digitalization's full potential, Clariant also adjusts its IT and support functions and further develops internal digital skills beyond classical IT capabilities. Enhanced support services, which include legal advice on data protection and intellectual property, employer branding to attract digital talents, and capacity-building of digital skills among existing staff, help the businesses navigate in the digital world. Clariant continues to strengthen its efforts for cybersecurity and information security, including privacy protection, by building up dedicated resources in IT and Group Compliance.

103-3 Evaluation of the management approach and measurement

Evaluation and outcome

The Operations Council manages the project pipeline for digital projects in the area of operations. The project steering committees meet regularly to assess the progress of each project and decide on its continuation using a set of digital key achievement and performance indicators. In addition, the Executive Committee and Board of Directors receive regular updates about the direction and progress of digitalization projects. Agile work organization in sprints continued to gain more importance throughout the company. In 2020, data science tools were developed in cross-business teams following agile principles.

Indicators

Performance indicators vary depending on the type and maturity of each workstream or project. They range from standard financial KPIs to indicators that reveal the product/market fit, such as the number of returning/paying visitors to a platform or the customer lifetime value to customer acquisition cost ratio. They are complemented by indicators that reflect sound customer-centric project management, such as the number of customer and industry expert interviews conducted, the number of pilot customers in the incubation phase, and the number of full-time equivalents assigned to a sprint.

Read more: Integrated Report, Digitalization

Environmental Protection and Resources

Management Approach

103-1 Explanation of the material topic and its boundary

Reason for materiality

Clariant's commitment to environmental sustainability and ethical practice is reflected in the company's responsible approach to resources and the environment. Maintaining energy efficiency, optimizing operations, and reducing emissions through technology and behavioral changes help Clariant decrease its environmental impact.

Energy

To conserve resources and improve cost-efficiency, managing energy is paramount for Clariant. Clariant's energy management aims to minimize emissions and greenhouse effects from energy use and acknowledge the development and implications of climate change.

Read more: GRI Report, Management Approach Climate Change

Water

Water management is a key topic for the chemical industry as water is used in numerous production processes and as a product ingredient. Clariant uses water for a variety of purposes in the production of chemical products, resulting in the release of wastewater effluents.

Waste Management

As a highly regulated topic, waste management is critical for Clariant and the entire global chemical industry. Handling waste appropriately is not only a sustainability commitment for Clariant. Accumulating waste also results in higher costs. Optimizing production to reduce waste is beneficial for Clariant's profitability since increasing yield decreases the amount of waste generated.

Pollution Prevention

Clariant is fully committed to operating sustainably and decreasing pollution that results from its business activities. Its approach includes a clear goal of reducing air emissions and minimizing the discharge of harmful pollutants into water bodies. Decreasing pollution is not only a social mandate, but also part of global legislation with which Clariant fully complies.

Protection of Ecosystems

Ecosystems provide a variety of critical goods and services such as clean water, energy, recreational areas, and protection from flooding, all of which benefit society at large as well as companies like Clariant. Clariant takes care in monitoring and remedying impacts in order to maintain invaluable ecosystem services.

Contribution to value creation

Energy

By reducing energy consumption, Clariant increases its profitability, safeguards natural resources, and enhances its brand reputation. Thanks to sustainable product developments, Clariant's customers profit from solutions that enable them to significantly save energy in their production processes.

Water

Apart from protecting resources, efficient water management saves cost in wastewater treatment. Through collaborative and innovative initiatives, Clariant strives to develop efficient water use solutions that work in industrial settings across the globe or even enable water savings at end-consumer use.

Waste Management

Clariant's waste management approach adds value by reducing the risk of environmental harm as well as costs associated with waste treatment. Increasingly, in a circular economy approach, waste will need to be considered or tested for being used as a raw material. These efforts are in line with Clariant's commitment to sustainability and lend credibility to its operations around the world.

Pollution Prevention

Pollution prevention adds value to the company by minimizing the risk of harming human health and the environment, while also reducing potential liabilities and negative impacts on the company's brand image. At the same time, Clariant's product portfolio enables our customers to reduce pollution, for example, in the area of volatile organic compounds (VOCs).

Protection of Ecosystems

By protecting the surrounding ecosystems and fostering ecosystem services, Clariant guarantees the future availability of resources and helps conserve vital services for society at large.

Boundary

Clariant currently focuses on the impacts of its own operations, which can be controlled and monitored directly. Potential effects along the value chain are considered as well.

Energy

Clariant is continuously improving energy efficiency in its own operations, but also strives for high standards in its value chain by providing products that help customers reduce their energy consumption.

Water

Read more: GRI Report, Management Approach Disclosure 303-1 Interactions with water as a shared resource

Read more: GRI Report, Management Approach Disclosure 303-2 Management of water discharge-related impacts

Waste Management

Clariant makes every effort during the development and manufacture of products to ensure that as little waste as possible is generated. Clariant monitors closely which plant generated the waste, the amounts that accrued during which period, the properties of the waste components, whether the waste is classified as hazardous, and how it can be recycled or disposed of.

Pollution Prevention

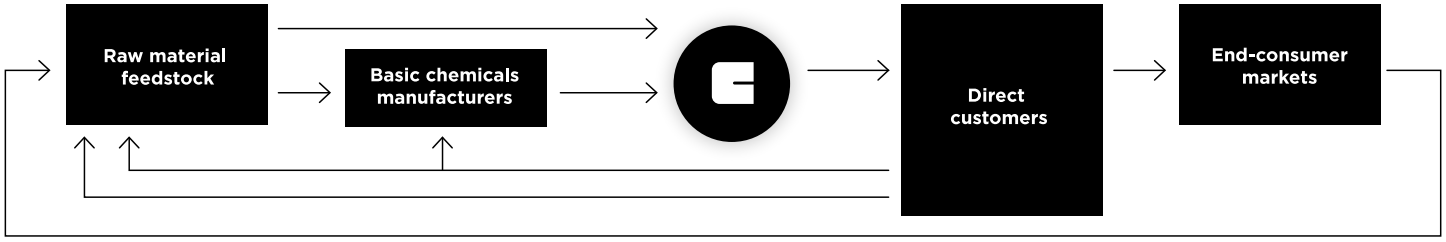
Clariant strictly adheres to regulatory requirements regarding wastewater, air emissions, and waste management across all its operations.

Protection of Ecosystems

Since most of Clariant's sites are located in industrial areas, vulnerable ecosystems are usually not impacted. Where possible, the monitoring is extended along the value chain, for example, by evaluating products with Clariant's Portfolio Value Program (PVP). In addition, Clariant carefully addresses the impacts of sourcing raw materials, such as palm oil and bentonite.

Read more: Corporate Website: Portfolio Value Program (PVP)

Impact in the value chain



103-2 The management approach and its components

Responsibilities and resources

At Clariant, the Corporate Sustainability & Regulatory Affairs (CSRA) department supports businesses with strategic and operational activities, for example, by providing input on product screenings and customer requests. The corporate Environmental Safety and Health Affairs (ESHA) unit, whose head reports to the Executive Committee (EC), is encompassed in CSRA. For 2021, a reorganization will put ESHA in Group Operational Excellence, which will increase synergies and ensure continuous focus and attention from the EC on the topic. Specialized ESHA teams within the different Business Units and country organizations are responsible for managing environmental protection and resources. While they set and monitor the standards, the full operational responsibility lies with each site, which also nominates a responsible person for day-to-day operational ESHA topics.

The total amount of ESH investments in 2020 was about CHF 31.7 million, including CHF 12.7 million for environmental protection. The expenditures for ESH protection in operative facilities amounted to over CHF 133.8 million in 2020, of which CHF 74.0 million were spent on environmental protection.

Goals and targets

By 2025, Clariant aims to achieve significant improvements in six major parameters compared to the base year 2013. With respect to metric ton of production, Clariant aims to reduce

- energy consumption by 30%
- direct CO_2 emissions by 30%
- greenhouse gas emissions by 35%
- water consumption by 35%
- waste volume by 35%
- wastewater volume by 40%

In addition, new ambitious science based targets were submitted to the Science-Based Target initiative at the end of 2020 and have been announced in February 2021. The new targets set out significant absolute reductions in greenhouse gas emissions.

Read more: GRI Report, Management Approach Climate Change

Further components

Clariant abides by the principles of the Responsible Care® Global Charter, which was initiated by the members of the International Council of Chemical Associations (ICCA) to create a global vision and highlight the commitment of the industry to continuous improvement in the environmental, health, and safety performance of chemical producers worldwide. Furthermore, Clariant adheres to its Sustainability Policy, Code of Conduct, Internal ESHA Management System, ESHA Guidelines and Guides, internal audits, and bylaws of the Executive Committee. The ESHA guidelines contain several common principles for environmental protection, including prioritizing measures that avoid or minimize negative environmental impacts over pollution control (end-of-pipe) measures.

Energy

The main governing programs at Clariant to minimize energy consumption and increase energy efficiency are eWATCH™, Clariant Operational Excellence (COX), and the Yield, Energy, Environment (YEE) initiative.

The eWATCH™ program is a three-dimensional energy efficiency and management approach that combines an operating system, management system, and employee system to reduce operational costs at production sites. The Clariant Energy Intelligence Guide (CEIG), a component of the eWATCH™ Employee System, supports careful management of the company's energy demand. This guide combines information, advice, best practices, and successful optimization projects, as well as key figures and tools that support energy efficiency, enabling users to systematically improve the energy efficiency of equipment.

An important component of the Operational Excellence program is the Clariant Production System (CPS). The goal of CPS is to achieve optimal productivity and financial performance at the production sites of all Business Units by identifying, developing, and implementing good practices across all production sites. Implementing the CPS leads to improvements in safety, productivity, conversion costs, energy consumption, and product quality.

The Clariant Production System's Yield, Energy, Environment (YEE) initiative increases yields, improves energy efficiency, and reduces waste streams by analyzing specific production processes or production units to create a comprehensive picture of energy optimization.

Water

Read more: GRI Report, Management Approach Disclosure 303-1 Interactions with water as a shared resource

Read more: GRI Report, Management Approach Disclosure 303-2 Management of water discharge-related impacts

Waste Management

Clariant's waste management performance has improved continuously over recent years thanks to global programs and ongoing efforts at individual sites. Wherever possible, Clariant recycles or reuses materials in order to avoid landfilling hazardous waste, and thus decreases adverse consequences for the environment. On the site level, waste generation is minimized by comprehensive planning and high-quality standards. Each type of waste is recorded and precisely analyzed. Proper disposal must be proven and documented in internal records.

Pollution Prevention

Clariant implemented several measures to improve its performance regarding pollution prevention. Air emissions and wastewater quality of all sites are monitored closely at the corporate level. All Clariant production sites strictly comply with local regulatory requirements regarding air and water emissions limits. In addition, Clariant uses its own standards and guidelines to ensure its operations are running in an environmentally friendly manner all the time.

Protection of Ecosystems

To guarantee sustainable sourcing of palm oil-based oleo chemicals, Clariant pursues certification of its palm oil derivatives supply. Clariant is a member of the Roundtable on Sustainable Palm Oil (RSPO) and achieved mass-balance certification for all its sites in 2016. As a member of the »Sustainable Palm Oil and Traceability in Sabah« (SPOTS) initiative, Clariant also implements specific action plans regarding the sustainability of the palm oil supply chain. These include working on the transparency of supply chains and providing support services to independent smallholders to improve their income and quality of life. In 2020, Clariant started to revise its palm-sourcing policies and targets to further ensure protection of ecosystems at the cultivation level.

103-3 Evaluation of the management approach and measurement

Evaluation and outcome

Clariant relies on a dedicated, internal group to exchange knowledge between stakeholders in the Business Units and service units on projects undertaken to reduce environmental impacts. At the same time, Clariant instituted its Clariant Excellence program, which has clear targets for resource savings. Moreover, regular ideation workshops were coordinated by Corporate ESHA in collaboration with various Business Units to identify bottlenecks and generate new ideas to achieve the 2025 targets. The participants in these ideation workshops are the operations managers from the production sites, who are the main stakeholders in implementing the strategies at the site level. The collaboration between the newly established Sustainability Transformation Unit, ESHA, Operational Excellence, and experts from the Business Units also led to the development of a revised target set.

Indicators

Clariant annually collects ESHA key figures to monitor the progress towards Clariant's 2025 environmental targets. The ESHA key figures are also used as a basis to improve performance and efficiency. Clariant's Project Tracking Tool (CPTT) tracks the progress of projects related to environmental performance.

Energy

Since its inception in 2012, YEE led to savings of more than CHF 86 million. In 2020 alone, YEE allowed for cost savings of CHF 6.1 million.

Water

Clariant tracks several water-related indicators, such as the total volume withdrawn from different sources, the water consumption in relation to production, and the volume discharged to different water sources. Protection of Ecosystems parameters tracked include the number of chemical production sites that are located in biological reserves or in areas with a high biodiversity value.

Waste Management

Indicators monitored include the weight of hazardous and nonhazardous waste by disposal method as well as the number and volume of significant spills.

Pollution Prevention

Parameters tracked for air emissions include volatile organic compounds (VOCs), sulfur oxides (SOXs), nitrogen oxides (NOXs), and particulate matter. For assessing wastewater quality, biological and chemical oxygen demands (BOD and COD, respectively), as well as organic content (TOC), suspended solids (TSS), heavy metals, nitrogen compounds, and phosphorus are recorded.

GRI 302:2016 Energy

302-1 Energy consumption within the organization / 302-2 Energy consumption outside of the organization / 302-3 Energy intensity

✔ PwC CH	2016	2017	2018	2019[1]	**2020**
Total energy consumption within the organization (in m kWh)	2 950	3 245	3 209	3 204[2]	3 071[3]
Relative energy consumption (in kWh/t production)	720	706	739	754[2]	758

[1] Every three years, Clariant validates environmental data from all production sites. The last full reporting campaign was in 2020 with 100% coverage from all production sites. In the interim years, including 2019, the reduced reporting scope comprises the larger sites responsible for 95% of total production.

[2] Due to increased data quality and completeness, the figure for 2019 has been restated.

[3] First half-year 2020 data for Business Unit Masterbatches are estimated based on the last full reporting campaign in 2017.

✔ PwC CH	2017	2018	2019[1]	2020
Total fuel consumption within the organization (in m kWh)	**1777**	**1781**	**1795[2]**	**1653**
Oil	87	83	60	49
Natural gas	1231	1254	1248[2]	1154
Diesel	57	54	113[2]	95
Energy crops (bagasse/briquettes)	122	121	125	65
Coal + Waste	280	269	235[2]	289
Total electricity consumption (in m kWh)	**844**	**768**	**704**	**626**
Total steam consumption from outside the organization (in m kWh)	**626**	**660**	**685**	**685**

[1] See footnote under the previous table.

[2] See footnote under the previous table.

Clariant's plants primarily require energy in the form of steam, electricity, and heat. Electricity is mainly used for electric motor drives in mixers, pumps, and other process-engineering equipment. Measurement and control technology, as well as lighting, also require electricity. Clariant uses natural gas for heating dryers, firing furnaces, and generating electricity and steam in its own power plants. Clariant uses steam to heat reactors and separators, such as distillation columns. The resulting condensate is, whenever possible, used for heating purposes. Across the Group, Clariant records total energy consumption, regardless of whether it has been internally produced or externally procured. Small energy procurements, such as transport services during business trips, are not recorded as they are insignificant in Clariant's overall energy balance.

Direct energy consumption (i.e., the use of primary energy sources) occurs at Clariant's sites, mainly for process heat- and steam-generation purposes. The primary energy source used most often is natural gas; coal is only used in very few locations, and Clariant is currently seeking alternatives where possible. Indirect use of energy stems from the consumption of electricity and steam from external sources in lieu of Clariant's own energy generation. Electricity and steam procured from third parties are produced with a mix of different primary energy carriers. Clariant endeavors, however, to increase the share of energy obtained from renewable sources on an ongoing basis. This will be particularly important for the implementation of Clariant's new CO_2 reduction commitments, together with further decreasing energy consumption.

Read more: Climate Change

To estimate the relative energy consumption per ton of production, Clariant accounts for all the energy it consumes as described above. Energy consumption outside of the organization is accounted for through the CO_2 footprint of the raw materials Clariant purchases. Data are gathered as part of Scope 3 emissions.

Read more: GRI 305-3, Other indirect (Scope 3) GHG emissions

302-5 Reductions in energy requirements of products and services

Clariant evaluates the energy consumption of products through its Portfolio Value Program (PVP), which includes the innovation pipeline. While the PVP looks at energy consumption across the entire life cycle, a specific area of focus of Clariant's innovation effort lies in the energy consumption in the use phase and how Clariant can help customers to reduce their energy consumption.

Read more: Corporate Website: Portfolio Value Program (PVP)

GRI 303:2018 Water and Effluents

303-1 Interactions with water as a shared resource

One of the main auxiliary materials for the chemical industry is water. Foremost, it is used as a coolant and as process water in production. Of the 41 million m^3 of Clariant's total water quantity purchased in 2020, about 70% was used for cooling production plants, 20% for production processes, and 10% as a product component or for steam/ice generation, irrigation, or sanitary purposes.

Clariant's plants and office buildings are located almost exclusively in industrial parks or appropriate commercial districts, where the required infrastructure, including sufficient and stable water availability, already exists.

The water supplies, especially at large production sites, are primarily guaranteed with river water supplied via third parties. Before being discharged into the piping system at each site, the river water is cleaned using various filter systems. Remaining amounts are obtained from the respective local water grids, but not in volumes that would significantly impair the water system. For plants located next to rivers, Clariant implements strict environmental regulations so that its activities have no measurable impact on the surrounding flora and fauna. The wastewater produced by Clariant in the year under review had no measurable impact on biodiversity.

To ensure continuous operations in areas under water stress, reducing water consumption and increasing water reuse are essential. Clariant prioritizes actions that increase efficient water use, ensure proper water management, and address potential risks. Clariant systematically tracks water related impacts and engages with stakeholders where necessary to deal with specific water-related impacts.

Clariant strengthened its water-risk management in 2017 by establishing an annual water-risk assessment for sites operating under high water stress. By systematically mapping water risks with a comprehensive tool, the Aqueduct Water Risk Map developed by the World Resources Institute, a facility's overall water-risk score (a combination of quantity, quality, regulatory, and reputational risks) is calculated, and the facilities that rank as medium to high risk are shortlisted. Based on this initial assessment, Clariant refined the Aqueduct analysis by performing a more detailed internal risk assessment. Relevant sites reported on impacts and emerging risks according to certain classifications and categories, allowing Clariant to identify sites with water risks that could have a substantial impact on operations, revenue, or expenditure. This detailed risk assessment process revealed that only a fraction of Clariant sites are situated in water-risk areas. For these sites, Clariant performed in-depth site-level water-risk assessments in 2019 to develop water management goals that ensure risks can be managed responsibly. The revised environmental targets, which Clariant will publish in early 2021, place additional emphasis on advanced and sustainable water management in areas of high water risk.

In 2020, Clariant continued to engage in the EU-funded INSPIREWater project to explore innovative solutions for industrial water management together with eleven other partners from the chemical industry. In the Clariant's case study, water reuse and concentrate treatment towards ZLD for secondary effluent with high fouling potential was demonstrated. For this purpose, the project embraced the development of a pilot-scale wastewater treatment plant containing innovative technologies that were consequently operated under real conditions on the ICS production site in Tarragona. The project has shown that 85% of the effluent could be recovered and reused. The produced water quality was suitable for medium- and low-quality application. The LCA analysis has shown an environmental impact reduction by 60% for the concept tested. Knowledge obtained from this project can be transferred to other Clariant sites, particularly those located in areas with water scarcity. Furthermore, Clariant engaged in internal quality audits, which are a central element of the ESHA management system, supporting the external environmental management certification according to ISO 14001. The project was finalized in 2020.

The importance of water management differs according to local conditions. Targets regarding water consumption are therefore set based on local water stress, and different regions and countries monitor their own regulatory developments.

303-2 Management of water discharge-related impacts

303-3 Water withdrawal / 303-4 Water discharge / 303-5 Water consumption

✔ PwC CH	2017	2018	2019[1]	**2020**
Total volume of water withdrawn (in m ^{3})	**49**	**49**	**44**	**41**
Surface water	7.6	8.0	7.5	6.3
Groundwater	9.1	8.9	5.7	5.2
Seawater	0.1	0.1	0.1	0.2
Produced water	0.1	0.1	0.1	0.1
Third-party water	32.1	31.9	30.9	29.0

[1] Every three years, Clariant validates environmental data from all production sites. The last full reporting campaign was in 2020 with 100% coverage from all production sites. In the interim years, including 2019, the reduced reporting scope comprises the larger sites responsible for 95% of total production.

Clariant is using fresh water with a total dissolved solids (TDS) concentration of less than 1000 mg/l for the majority of its operations. At only one Clariant site, seawater is withdrawn and treated before use because there is no access to fresh water.

Clariant is in the process of standardizing the water stress/water risk assessment disclosure in accordance with various sustainability reporting requirements. The respective disclosure is thus omitted until the process is complete.

✔ PwC CH	2016	2017	2018	2019[1]	**2020**
Relative water consumption (in m ^{3}/t product)	11.7	10.6	11.3	10.4	10.1

[1] See footnote under the previous table.

✔ PwC CH	2017	2018	2019[1]	2020
Total water discharge to all areas (in m m^3)	**12.7**	**12.6**	**11.9**	**11.4**
Surface water	10	8.2	7.9	7.7
Groundwater	n.a.	n.a.	n.a.	n.a.
Seawater	0.6	0.5	0.5	0.4
Third-party water treatment	2	3.6	3.5	3.2

[1] Every three years, Clariant validates environmental data from all production sites. The last full reporting campaign was in 2020 with 100% coverage from all production sites. In the interim years, including 2019, the reduced reporting scope comprises the larger sites responsible for 95% of total production.

In 2020, Clariant recorded two incidents of noncompliance with discharge limits of priority substances of concern.

Clariant considers the entire volume of water withdrawn and used as its total water consumption. Cooling water returned to the source after being used in cooling cycles is not excluded from total consumption. For Clariant, priority substances of concern are heavy metals, organic pollutant parameters such as biochemical oxygen demand (BOD) and chemical oxygen demand (COD), nitrogen and phosphorus compounds, soluble salts, and suspended solids. Clariant is compliant with regulatory requirements and treats the priority substances of concern as identified in the wastewater discharge permit. The substances of concern are defined based on the type of industrial operation and cannot be generalized at the Group level.

GRI 304:2016 Biodiversity

304-1 Operational sites owned, leased, managed in, or adjacent to protected areas and areas of high biodiversity value outside protected areas

Clariant does not operate chemical production sites in biological reserves or in areas with a high biodiversity value. The company's sites are exclusively located in industrial parks or areas designated as industrial zones by local municipalities. If there are protected areas near Clariant's sites, the company ensures local regulatory guidelines to prevent pollution in the protected areas are followed.

304-2 Significant impacts of activities, products, and services on biodiversity

If forests, which are generally unprotected areas, are located in the immediate vicinity of production sites, Clariant ensures the nature of the plant and activities carried out do not have an appreciable adverse effect on the surrounding flora and fauna. Clariant is also aware of the possible impact of certain raw materials and their cultivation on biodiversity, as in the case of palm oil. Clariant cooperates with customers to improve traceability of palm-based raw materials and is a member of RSPO, offering RSPO mass-balance-certified material.

304-3 Habitats protected or restored

In areas that were reclaimed by Clariant following bentonite extraction (such as Southern Bavaria), certain types of animals that are on the Red List of Threatened Species have repopulated. Clariant continues to take care of reclamation of mines in other regions. Volunteering for river/beach cleanup, as well as tree-planting activities, have been carried out by Clariant employees in various regions in the past years.

304-4 IUCN Red List species and national conservation list species with habitats in areas affected by operations

GRI 306:2016 Effluents and Waste

306-1 Water discharge by quality and destination

✔ PwC CH	2016	2017	2018	2019[1]	**2020**
Total volume of planned and unplanned water discharges (in m m^3)	13.2	12.7	12.6	11.9	11.4
Relative wastewater discharge (in m^3/t production)	3.23	2.75	2.90	2.8	2.8

[1] Every three years, Clariant validates environmental data from all production sites. The last full reporting campaign was in 2020 with 100% coverage from all production sites. In the interim years, including 2019, the reduced reporting scope comprises the larger sites responsible for 95% of total production.

The absolute quantity of water discharged decreased by 4.2% in 2020. Water discharged in relation to production remained stable at 2.8m^3 per ton of production. Clariant has reduced the chemical oxygen demand (COD) — the indicator of organic content in wastewater — in its wastewater discharged by ~37% from 2013 to 2020. Consequently, fees and production costs were reduced. Only small amounts of heavy metals remain in the wastewater discharged from Clariant's individual sites. The values are partly based on concentrations that are at or below detection limits. The wastewater discharged by Clariant is largely cleaned and does not affect the quality of the receiving water bodies.

306-2 Waste by type and disposal method

✔ PwC CH

in thousand t	2016	2017	2018	2019[3]	2020
Total weight of hazardous waste, with a breakdown by the following disposal methods where applicable:[1]	**54**	**56**	**55**	**61**	**63**
Recycling[2]	20	23	23	16	17
Landfill[2]	10	7	8	14	11
Treatment[2]	39	41	37	31	35
Total weight of nonhazardous waste, with a breakdown by the following disposal methods where applicable:[1]	**92**	**142**	**177**	**277[4]**	**259**
Recycling[2]	17	27	20	21	31
Landfill[2]	69	107	148	248[4]	221
Treatment[2]	7	9	10	8	7
Total waste (hazardous and nonhazardous)[1]	**147**	**198**	**232**	**337[4, 5]**	**328**

[1] Waste from Clariant activities

[2] The listed waste-handling channels also contain waste from other producers on site but managed by Clariant. This additional third party waste is not reflected in the total waste figures.

[3] Every three years, Clariant validates environmental data from all production sites. The last full reporting campaign was in 2020 with 100% coverage from all production sites. In the interim years, including 2019, the reduced reporting scope comprises the larger sites responsible for 95% of total production.

[4] 2019 figure restated due to additional gypsum waste which was not reported previously.

[5] All figures are rounded, resulting in discrepancies between the total waste generated and the breakdown figures

306-3 Significant spills

✔ PwC CH	2018	2019	2020
Process safety event rate[1]	0.46	0.48	0.36

[1] Process Safety Event rate = Number of Process Safety Events * 100 / FTE.

✔ PwC CH	2018	2019	2020
Number of significant spills	4	2	17
Total volume of significant spills (m^3)[1]	6	1	78.7

[1] All spills were contained on-site without any releases to the environment. Due to the new definition of significant process safety events (PSEs) and spills based on the ICCA criteria, all PSEs with a score of >=3 points are considered significant. With this new definition, the numbers reported this year are not comparable with previous years and the difference is higher.

In 2020, Clariant recorded 17 spills that are considered significant under the definition of ICCA. The total volume of the spill amounted to 78.7 m^3. Due to the new definition of significant process safety events (PSEs) and spills based on the ICCA criteria, for Clariant all PSEs with a score of >=3 points are considered significant. With this new definition, the numbers reported this year are not comparable with previous years and the difference is higher.

Guaranteeing safety of people and environment is Clariant's highest priority. An effective safety management system that can identify, assess, and control risks in the production process and reduce or even entirely avoid these risks through appropriate measures is indispensable. For this reason, Clariant, in close cooperation with the European Process Safety Centre (EPSC), has actively supported the development of a simple and representative measurement system with the aim of establishing an industry-wide standard.

This system records and systematically assesses smaller substance and energy releases in order to avoid major incidents. These incidents, or Process Safety Events (PSEs), are categorized according to criteria stipulated by the European Chemical Industry Council (Conseil Européen des Fédérations de l'Industrie Chimique, Cefic) and the International Council of Chemical Associations (ICCA). They are a component of the ongoing improvement procedures for the process safety of the production systems.

In 2020, the process safety event rate in Clariant decreased from 0.48 to 0.36, according to ICCA criteria.

306-4 Transport of hazardous waste

Hazardous waste transport is performed by certified companies fully compliant with all requirements of transport and waste legislation. It is important to know from which plant the waste originates, the amounts that accrue during which period, the properties of the waste components, whether the waste is classified as hazardous, and how it can be recycled or disposed of.

GRI 307:2016 Environmental Compliance

307-1 Noncompliance with environmental laws and regulations

Clariant's operative business adheres strictly to the company's internal control guidelines for the area of »Environment, Safety, and Health« (ESH). This directive aims to ensure that there are no breaches of internal and external regulations. Clariant is continuously improving when operations are not aligned with internal or external guidelines. As a result of these efforts and stringent voluntary commitments, Clariant only experienced one case in 2020 in which it was accused of not having acted essentially in compliance with laws, regulations, and voluntary codes of practice in connection with nature and environmental protection. Thus, Clariant had to pay one substantial fine or non-monetary penalty for noncompliance with environmental laws and regulations.

Growth and Profitability

Management Approach

103-1 Explanation of the material topic and its boundary

Reason for materiality

Clariant strives to provide innovative, differentiated, and customer-specific solutions while delivering a superior customer experience with fast and reliable fulfillment. The company's ability to achieve this aspiration is based on above-industry-average sales growth, profitability (

EBITDA margin), and capital returns (Return on Invested Capital, ROIC). Thus, Clariant established growth and performance as two of the five pillars of its Group strategy and set related financial goals.

Read more: Strengthening the Core with a High-Value Portfolio and Refocused Organization

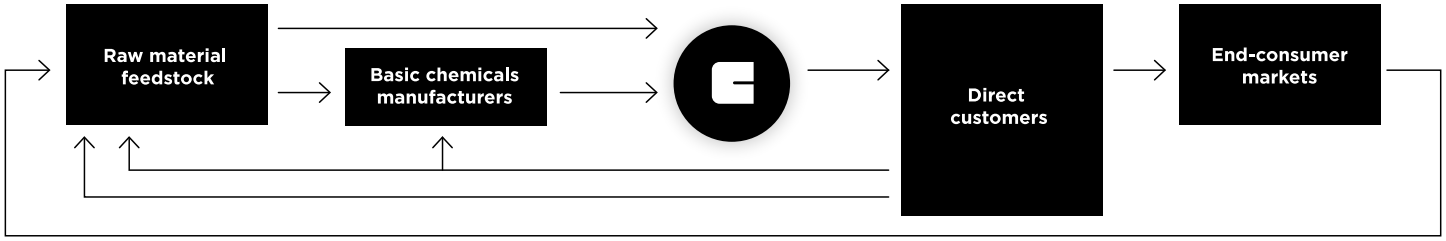
Contribution to value creation

Clariant aspires to stand out through above-average value creation for all stakeholders—customers, employees, shareholders, suppliers, society, and the environment. By providing high-performing, innovative, and sustainable products and services, Clariant fulfills pressing customer needs safely, reliably, and efficiently. This ensures attractive jobs and fair salaries for employees, solid returns to shareholders, stable business relationships with suppliers, and a responsible management of natural resources.

Boundary

Clariant's business activities impact the entire value chain, from the extraction of natural resources to suppliers, industry partners, customers, and end consumers.

Impact in the value chain



103-2 The management approach and its components

Responsibilities and resources

Although achieving growth and performance improvement is a shared responsibility of all management functions, the overall direction of the Group is defined by Clariant's Board of Directors. The Board reviews and further develops the company's strategy once a year during a two-day Board of Directors meeting. The Board has delegated the executive management of the Clariant Group to the Executive Committee, which consists of the CEO, the CFO, and two other members. The Executive Committee is mainly responsible for implementing and monitoring the Group strategy for the financial and operational management of the Group, and for continuously improving the efficiency of the Group's structure and organization.

Read more: Corporate Governance Report

Goals and targets

Strategic discussions with each Business Unit include growth and profitability targets at the segment level as well as for the whole Business Unit. From these discussions, Clariant derives growth and profitability objectives for its Business Areas. For Care Chemicals, Clariant expects an annual sales growth of 5–7% and aims to achieve an EBITDA margin of 19–21%. For Catalysis, the expected annual sales growth rate is 6–9%, and the EBITDA margin ambition is 26–30%. The respective targets for Natural Resources are set at 5–7% and 18–20%.

Read more: Strengthening the Core with a High-Value Portfolio and Refocused Organization

103-3 Evaluation of the management approach and measurement

Evaluation and outcome

Clariant's Strategic Management Process (SMP) ensures that the Group strategy is executed within each Business Unit. As part of the SMP, each Business Unit reviews cross-Business Unit topics derived from market trends and the five pillars of the Group strategy. Each Business Unit selects specific topics for deep dives that are integrated as core elements into their Business Plan, including must-win battles that support the Business Area's growth and profitability targets.

In 2020, Clariant successfully completed the sale of its Masterbatches business and launched the divestment of the Pigments business, further supporting its transformation into a more focused specialty chemicals company. Clariant is adapting and refocusing its organization post divestments to allow its high-value specialty businesses to operate in an even more focused and agile manner. At the same time, it is maintaining a competitive cost structure by rightsizing service units and regional organizations.

Clariant delivered robust performance in 2020, successfully mitigating the negative impacts of the COVID-19 pandemic. In Care Chemicals, profitability improved due to growth in Consumer Care in tandem with stringent margin and cost management. The EBITDA margin in Catalysis declined as a result of the less favorable product mix, particularly in the first and fourth quarters, and the efficiency program provision. Natural Resources' profitability also weakened due to the softer demand environment, although it was close to the prior year on an underlying basis.

Indicators

Read more: Integrated Report, Financial Capital

Read more: Financial Report

GRI 201:2016 Economic Performance

201-1 Direct economic value generated and distributed

Read more: Financial Report

201-2 Financial implications and other risks and opportunities due to climate change

Clariant discloses details about the risks and opportunities posed by climate change through a number of sustainability reporting programs, such as CDP (Carbon Disclosure Project). The assessment includes a detailed description of the opportunities and risks per type of impact (transitional and physical parameters) as well as the methods used to manage the risks. In addition, Clariant is currently assessing how to integrate the recommendations of the »Task Force on Climate-related Financial Disclosures« (TCFD) at the Group level.

Main transition risks:

- Climate and energy policies leading to increased fuel/energy taxes and regulations (e.g., cap and trade schemes and environmental taxation).
- Stigmatization of a sector or company, which could lead to negative impacts on brand image, opposition from communities at the production sites, and unfavorable media coverage.
- Higher awareness for environmental impacts among customers and shifting preferences toward climate-friendly solutions.

Main physical risks:

- Change in precipitation extremes and droughts (e.g., water scarcity), induced changes in natural resources, tropical cyclones (hurricanes and typhoons), impact on infrastructures, and/or impacts on the supply chain.

Main opportunities:

- Innovation and R&D activities focused on low-carbon products and differentiation through a more sustainable product portfolio, spurred by the shift in consumer preferences for climate-friendly solutions.
- Increased demand for solutions related to megatrends such as low-carbon mobility, recycling, and urbanization.

201-3 Defined benefit plan obligations and other retirement plans

Pension and other employee benefit plans are monitored globally by Clariant for relevance, compliance, costs, and suitability as a valuable employee benefit. Clariant is aware of the significance of pension and other benefit plans as a lever for retaining staff. These plans are regularly evaluated against benefits in the respective countries in order to be in line with current practices. Before every adjustment, Clariant carefully examines the impact the changes have on the employees and, if necessary, directly consults with them.

Clariant offers retirement or pension plans as a benefit to protect employees after completing their active working life and to enable them to retire. Clariant aims to offer benefits that are competitive in the local markets; existence and type of retirement or pension plans differ widely from country to country based on local legislation, social security systems, and market practices.

Read more: Financial Report, Retirement benefit obligations

Innovation and Technological Advances

Management Approach

103-1 Explanation of the material topic and its boundary

Reason for materiality

A strong focus on innovation and Research & Development is one of the five pillars of Clariant's strategy to become a globally leading company for specialty chemicals. By leveraging its sound technology platforms and know-how, Clariant tackles emerging macrotrends to stay ahead in dynamic markets, creates high-performing solutions for rapidly changing customer needs, and drives profitable growth in all its businesses.

Contribution to value creation

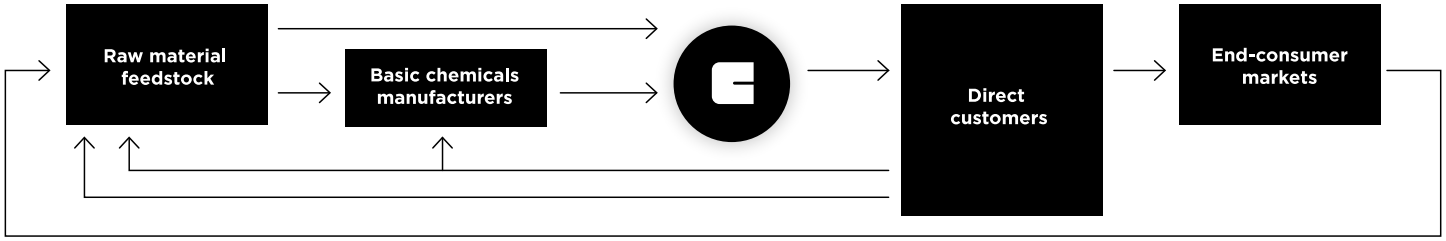
Innovation also supports Clariant's second strategic pillar—adding value through sustainability—by continuously improving the company's sustainability performance, and thereby creating long-term value for its stakeholders. Sustainability likewise promotes innovation by seeking sustainable solutions that meet increasing demand, thereby spurring growth and higher financial results.

A culture of innovation is also an important factor in creating a compelling work environment, boosting employee motivation, and helping Clariant attract and retain talent.

Boundary

Clariant's innovation activities focus on products and processes, impacting the entire value chain from suppliers to internal operations, customers, and end users.

Impact in the value chain



103-2 The management approach and its components

Responsibilities and resources

Clariant's Innovation Committee oversees all innovation activities. Under the lead of the Chief Technology Officer, the Innovation Committee comprises representatives from the Business Units (Heads of Innovation, Heads of Marketing & Innovation, and Innovation Champions), key functions from Group Technology & Innovation, the Head of the newly instituted Sustainability Transformation department, the Head of Digital4Clariant, the Head of the Technology & Innovation Office, and a representative from Corporate Planning & Strategy.

The charter of the Innovation Committee outlines its focus: to review the innovation strategy at the corporate level and within each Business Unit, define corporate growth fields and technology focus fields, and coordinate innovation activities across Business Units. Moreover, the committee oversees Clariant's corporate innovation portfolio to maximize the value of the projects in the innovation pipeline and increase the success rate of launched innovation projects. The Innovation Committee is ultimately responsible for ensuring best practice application in innovation, intellectual property management, and adherence to Clariant's technology and innovation governance. It is also tasked with fostering open innovation, which includes acquiring public funding and strengthening Clariant's position as an industry leader in R&D, innovation, and sustainability.

In 2020, Clariant announced the creation of Group Innovation & Sustainability (GIS), which will bundle innovation and sustainability competencies under one roof, effective January 2021. This new organization comprises the following units: Sustainability Transformation, Global Product Stewardship, Emerging Technologies, Biotechnology, and Global IP Management. It is complemented by a lean Program Management Office & Innovation Center Management function,

which will ensure standardized processes, tools, and reporting, as well as manage Clariant's Innovation Centers. The combination of these functions under the GIS umbrella will allow Clariant to enhance its transformation roadmap as it relates to innovation and sustainability.

Research & Development activities are structured along five Technology Platforms: Chemistry & Materials, Biotechnology, Catalysis, Process Technology, and Emerging Technologies, effective January 2021. The Technology Platforms collaborate closely with the Business Units to ensure that technology push and market pull go hand in hand.

In 2020, the former Business Incubator was dissolved since several strategic projects were stopped due to Clariant's portfolio changes and divestments. Business incubation nevertheless remains an important element of Clariant's innovation process. Incubation activities are driven by Clariant's Technology Platforms or by the Business Units.

Goals and targets

Clariant strives to realize a local currency growth rate of 2–3% through innovation, with a target of 1–2% sales growth from top-line innovation alone.

Further components

Read more: Integrated Report, Core Processes for Value Creation

Read more: Integrated Report, Innovation and Technological Advances

103-3 Evaluation of the management approach and measurement

Evaluation and outcome

The innovation approach is regularly reviewed as part of the yearly Strategic Management Process.

Indicators

After achieving the growth target in 2019, Clariant's innovation sales met the expectations again in 2020, despite the exceptionally difficult economic environment linked to the COVID-19 pandemic. While overall sales of the continuing businesses decreased by -4.7%, innovation sales of the continuing businesses grew by more than 2%, proving the remarkable resilience of Clariant's innovation activities in such challenging times.

Occupational Health, Safety, and Well-being

Management Approach

103-1 Explanation of the material topic and its boundary

Reason for materiality

As a global employer, Clariant is committed to promoting a healthy culture at the workplace. Processes regarding occupational safety are top priorities to ensure seamless manufacturing operations, protect the health and safety of Clariant's employees, and meet legal and reputational requirements. Failing to meet requirements has a direct negative impact on staff morale, labor costs, and productivity, as well as on operational costs. Moreover, negative incidents of occupational health, safety, and well-being have a detrimental effect on the company's brand image.

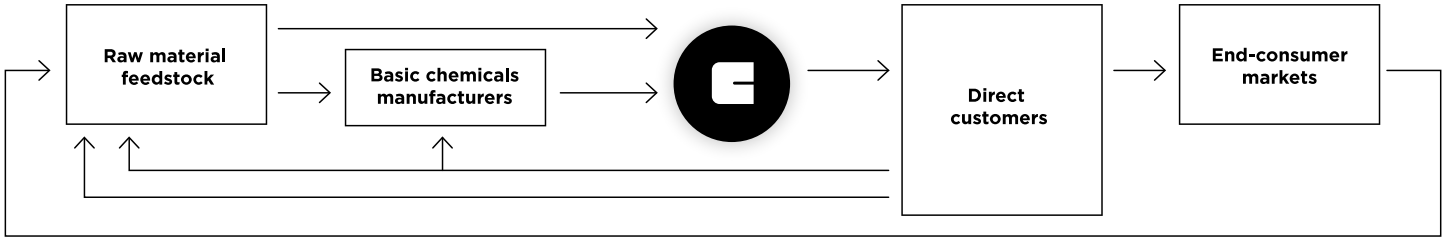
Contribution to value creation

Occupational health, safety, and well-being add value to Clariant by minimizing the risk of harm to both people and the environment and reducing potential liabilities for the company. Additionally, Clariant acknowledges the physical and mental well-being of its employees as a prerequisite for engagement and performance.

Boundary

Occupational health, safety, and well-being is relevant for all Clariant businesses, including management-controlled joint ventures. The impacts of this topic occur within Clariant's own operations.

Impact in the value chain



103-2 The management approach and its components

Responsibilities and resources

Clariant's Corporate Environmental Safety and Health Affairs (ESHA) department and ESHA experts in all regions, countries, service units, and Business Units are responsible for managing occupational health and safety. Managing the well-being of Clariant's employees is a shared responsibility of the well-being experts, the Corporate Human Resources Department, and the regional and local human resources departments.

Goals and targets

Clariant is focused on its goal of zero accidents and its desire to embed process safety into the daily life of all operations. Milestones are defined on Group, Business Unit, and regional levels, and progress toward zero accidents is linked to top management bonuses. A zero-accident goal also reflects the company's focus on the people dimension, one of Clariant's brand values.

Further components

Read more:

GRI 403-1, Occupational health and safety management system
GRI 403-2, Hazard identification, risk assessment, and incident investigation
GRI 403-3, Occupational health services
GRI 403-4, Worker participation, consultation, and communication on occupational health and safety
GRI 403-5, Worker training on occupational health and safety
GRI 403-6, Promotion of worker health
GRI 403-7, Prevention and mitigation of occupational health and safety impacts directly linked by business relationships

103-3 Evaluation of the management approach and measurement

Evaluation and outcome

To protect employees from work-related hazards, every workplace at Clariant is subject to a systematic assessment that includes workplace ergonomics, illumination, noise, indoor air quality, humidity, and temperature. Clear minimum requirements are defined for each factor, and measures to redesign the workplace are taken if these requirements are not met.

The health of employees is regularly examined by Clariant. Depending on the workplace, extensive health checks are carried out in order to detect signs of illness as early as possible. For some activities, special health certificates and vaccinations are required, and special attention is paid to ensure that these are obtained and given. Medical health professionals anonymously report issues noticed through personal health checks of employees, for example, from blood or urine monitoring, to either the local ESHA organization or the area responsible depending on local laws. The reported information is used to review the mandatory workplace risk assessments required by »Protection from Hazards to Health.« Clariant ensures medical confidentiality. Initial workplace risk assessments define whether or not personal health monitoring is a necessary measure.

Indicators

Clariant monitors several key performance indicators on a regular basis: Lost-Time Accident Rate (LTAR) and Restricted Work cases are tracked continuously and globally reported on a monthly basis. Recorded Injuries are reported quarterly, and Occupational Illnesses are tracked continuously and reported globally on an annual basis. Safety Deviations are continuously monitored at respective sites and quarterly on a global level.

Furthermore, Clariant monitors all Process Safety Events (PSEs). All reported PSEs are assessed quarterly and published in Corporate ESHA dashboards. When Clariant identifies a trend in Process Safety Events that must be corrected, the corresponding units are contacted and instructed to take corrective measures.

GRI 403:2016 Occupational health and safety management system

403-1 Occupational health and safety management system

To ensure operational health, safety, and well-being, Clariant has several policies and guidelines in place, including an Employment Standards Policy, which underscores Clariant's commitment to global workplace rights and acknowledges its social responsibility toward all employees. Clariant's Sustainability Policy also contains a section on the safety and security of employees and the environment. Several additional guidelines cover a large number of safety and security issues, such as fire and explosion precautions, the handling of hazardous substances, and the identification of risks associated with chemical production. In addition, Clariant adheres to the Precautionary Principle when dealing with risks where scientific understanding is incomplete.

Clariant implemented the shift from the current OSHAS 18001 certification to ISO 45001 in 2020. A gap analysis was conducted to identify improvement potentials for our occupational health and safety management system, followed by adaptations of guidelines and procedures. Since the beginning of 2020, internal auditing has been conducted according to ISO 45001, and the certificate confirming compliance with the standard has been received.

403-2 Hazard identification, risk assessment, and incident investigation

The internal Clariant guideline »Protection from Hazards to Health« serves to avoid work-related illnesses and regulates the identification of occupational health hazards for all workplaces. The guideline includes defined revision criteria and cycles. For the control measures, the STOP principle has to be applied, which defines the hierarchy of measures to be taken to avoid incidents. A comprehensive internal audit system ensures the quality and triggers continuous improvement.

To report work-related hazards or near-miss incidents, Clariant's employees can either approach their supervisors directly, submit a report using »Safety Counts!« cards, or utilize an online system at some sites. If employees identify a hazardous situation, they are permitted and encouraged to stop the activity and report to their superior. The application of this rule is part of the »AvoidingAccidents@Clariant« training.

After a work-related incident, Clariant conducts an investigation to identify corrective actions and to avoid recurrence. Specific methodologies are provided and described in Clariant's investigation guide. According to internal processes, Lost-Time Accident and Restricted Work case reports are only closed if an appropriate investigation report is available and filed. The decision to close a report is made on the Group level by an assigned member of Corporate ESHA.

As part of Clariant's Audit Program, internal experts from Corporate ESHA and the Integrated Group System Management (IGSM) regularly visit sites to check workplace and process safety standards by assessing the facilities and establishing corrective measures to tackle the main risks. Process Hazard Analyses (PHAs) are conducted periodically by competent personnel at the sites. The PHAs are reviewed at least every five years and updated in the event of modifications. Whenever modifications are done in the facilities, management of change procedures are applied, ensuring that no new or additional risks are introduced without being assessed and controlled.

403-3 Occupational health services

The promotion of workplace health and well-being is a local responsibility that each Clariant region addresses with tailored programs. Exceptions are the company-wide family-friendly policy and standards that ensure a healthy and safe working environment for all employees. Further, Clariant's Employee Assistance Program offers free counseling by external specialists in the event of stress (whether work-related or not), burnout, personal crisis, drug addiction, or other challenging circumstances.

Certain locations implemented voluntary programs to support employees in quitting smoking. For drug addiction, Clariant established a procedure for treatment through medical plans and in-hospital care, if necessary. Flexible working arrangements can be made and apply to both work-related stress management and unrelated, extenuating circumstances. Clariant performs an assessment of health habits and special health issues of all employees and updates local programs based on these findings.

403-4 Worker participation, consultation, and communication on occupational health and safety

95.8% of staff per capita employed in production are represented by a safety committee. Considering the whole workforce (production, procurement, sales, and management), 85.9% of staff per capita are represented. At Clariant, safety issues are also addressed in committees that do not primarily deal with this topic.

A working group is established if there is a need for new internal standards or to update existing ones. The resulting draft is sent to the different stakeholders in Clariant's Business Units and regions to solicit feedback. Feedback and requests for revisions are duly considered before the standard is finalized and approved. The relevant information is subsequently published in the Group Management System (GMS) database and on SharePoint.

Clariant's »Safety Counts!« cards also play an important role in ensuring health and safety by providing employees with an opportunity to report critical safety situations and the circumstances that led to them. Employees can also submit their proposals to improve occupational health, safety, and well-being in suggestion boxes. Furthermore, they have access to an Integrity Line hosted by an external service provider, where they can raise their complaints anonymously and around the clock. The system guarantees that concerns are dealt with by representatives of Group Compliance.

403-5 Worker training on occupational health and safety

Since 2007, Clariant has run the AvoidingAccidents@Clariant program, underscoring its commitment to the occupational health, safety, and well-being of its employees. Under the umbrella of the program, Clariant rolled out multifaceted trainings and tools to achieve the zero-accidents objective. These include, for example, safe behavior trainings, safety leadership improvements, safety checks, safety days, and safety weeks.

In addition, Clariant has a Learning Management System (LMS) that is used to provide, steer, and monitor various programs such as occupational health and safety-related e-Learnings, webinars, and workshops. Furthermore, according to the »Protection from Hazards to Health« guideline, the area responsible is tasked with informing workers and contractors about any specific hazard and training them on specific standard operating procedures and work instructions.

Additionally, there are special trainings regarding work-related hazards, hazardous activities, or potential hazardous situations provided by the respective plant and the building management. These trainings are customized and depend on the jobs to be performed.

403-6 Promotion of worker health

Since balance between work and family life significantly contributes to the well-being of employees, Clariant also offers a wide range of flexible working arrangements, such as flextime, part-time work, or working from home. Further benefits designed to enhance the work-life balance of its employees include healthy meals in the cafeterias, the provision of fitness facilities and contributions to external fitness programs, childcare facilities and contributions to external childcare, support for employees who care for elderly family members, as well as access to nutrition counseling and health checks.

To further support Clariant's local activities and promote a shared culture of health and well-being, the company plans to initiate a global policy to provide a framework for new ways of working, including agile and mobile work.

403-7 Prevention and mitigation of occupational health and safety impacts directly linked by business relationships

Read more: GRI Report, Management Approach Occupational Health, Safety, and Well-being

403-8 Workers covered by an occupational health and safety management system

✔ PwC CH	2017	2018	2019	**2020**
Percentage of employees covered by an occupational health and safety management system	100%	100%	100%	100%
Percentage of employees covered by an occupational health and safety management system that has been internally audited	100%	100%	100%	100%
Percentage of employees covered by an occupational health and safety management system that has been externally audited or certified	100%	100%	100%	100%

403-9 Work-related injuries

✔ PwC CH	2017	2018	2019	**2020**
Number of fatalities as a result of work-related injury	2[1]	0	0	0
Rate of fatalities as a result of work-related injury (per 200 000 hours)	0.00529	0	0	0
Number of high-consequence work-related injuries (excluding fatalities)	0	1[2]	0	2[3]
Rate of high-consequence work-related injuries (excluding fatalities) (per 200 000 hours)	0	0.005[2]	0	0.012
Number of recordable work-related injuries	302	248	232	157
Rate of recordable work-related injuries (per 200 000 hours)	1.57	1.31	1.21	0.95
Number of hours worked	38 134 000	37 796 000	38 556 000	33 262 000

[1] Fatalities disclosure includes employees and contractors.

[2] Restated due to one reclassified injury, which was not considered by the statutory insurer to be an incident but was determined to be a personal health issue.

[3] One high-consequence injury comes from the previous year

Additional indicators:

✔ PwC CH	2016	2017	2018	2019	2020
Occupational accidents with at least one day's work lost	**37**	**38**	**27[2]**	**28**	**26**
male	35	34	27[2]	27	26
female	2	4	0	1	0
Lost-time accident rate (LTAR)[1]	**0.19**	**0.2**	**0.14[2]**	**0.15**	**0.16**
male	0.18	0.18	0.14[2]	0.14	0.16
female	0.01	0.02	0	0.01	0
Lost-time accident rate (LTAR)[1] for contractors	0.46	0.21	0.24	0.22	0.14
Lost-time accidents by supervised (non-Clariant) workers (included in the overall number of occupational accidents)	**2**	**2**	**6**	**1**	**1**
male	2	1	6	1	1
female	0	1	0	0	0
Lost workdays (LWDs) caused by occupational accidents	**1955**	**1135**	**879[2]**	**661**	**1229[3]**
male	1865	1051	874[2]	648	1229[3]
female	90	84	5	13	0
Lost workday rate (LWDR)	9.8	5.95	4.68[2]	3.43	7.39

[1] Occupational accidents with at least one day's work lost relative to 200 000 hours of work.

[2] Restated due to one reclassified injury, which was not considered by the statutory insurer to be an incident but was determined to be a personal health issue.

[3] 353 lost workdays (LWDs) from 2019

✔ PwC CH	2019		2020	
	Male	Female	**Male**	**Female**
Occupational accidents with at least one day's work lost	**27**	**1**	**26**	**0**
Europe, the Middle East, and Africa	15	0	18	0
Greater China	0	0	1	0
India	1	0	0	0
Japan	0	0	0	0
Latin America	4	1	6	0
North America	7	0	1	0
Southeast Asia-Pacific	0	0	0	0

✔ PwC CH	2019		2020	
	Male	Female	Male	Female
Occupational accidents of contractors, with at least one day's work lost	**10**	**0**	**6**	**0**
Europe, the Middle East, and Africa	4	0	3	0
Greater China	0	0	0	0
India	3	0	1	0
Japan	0	0	0	0
Latin America	3	0	2	0
North America	0	0	0	0
Southeast Asia-Pacific	0	0	0	0

403-10 Work-related illness

✔ PwC CH	2017	2018	2019	2020
Number of cases of recordable work-related ill health	**0**	**1**	**3**	**0**

Product Stewardship / Sustainable Chemistry

Management Approach

103-1 Explanation of the material topic and its boundary

Reason for materiality

Protecting customers, consumers, and the environment by providing safer and more sustainable solutions is one of Clariant's top priorities.

Product stewardship is evolving from a primarily legal prerequisite for a chemicals company into a key enabler of regulatory intelligence for Clariant's businesses, in the best sense of gathering, analyzing, and assessing regulatory and emerging issues that are relevant to the marketing of Clariant's portfolio.

Sustainability leadership goes even further, requiring a company to proactively pursue more sustainable and innovative solutions. Clariant steers its portfolio toward products that consider all three dimensions of sustainability: people, planet, and performance. For Clariant, embedding sustainability aspects in product development and other business processes is a must. Driven by societal demand and policy attention, customers and markets are increasingly aware of and sensitive to the sustainability features of products. By proactively screening its products and innovation projects against strict and forward-looking sustainability criteria, Clariant aims to develop more sustainable and innovative solutions that support long-term value creation.

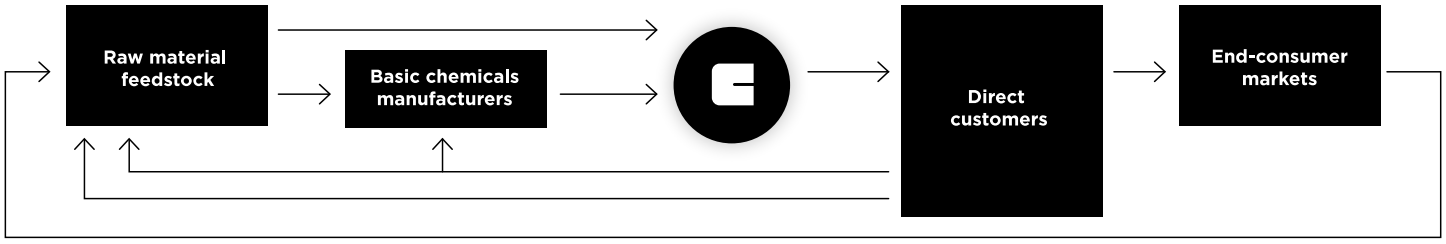
Contribution to value creation

By providing the information required to ensure the safe use and handling of its products, as well as to comply with national and international regulations, Product Stewardship adds value to Clariant's portfolio and prevents reputational or legal damages. In addition, Product Stewardship supports Clariant's business through active communication with customers on product safety for their applications, thereby playing an important role in supporting business and environmental and health protection.

Boundary

Product stewardship and sustainable chemistry applies to all product cycles from cradle to cradle as impacts can result from all phases of product development, operations, and downstream value chains.

Impact in the value chain



103-2 The management approach and its components

Responsibilities and resources

Clariant's approach to product stewardship is globally oriented and ensures that local and regional product stewardship teams play an integral role in the Global Product Stewardship organization and support business and external customer communication on all regulatory issues regarding the management of chemicals.

Goals and targets

Although Clariant does not publish its goals regarding product stewardship and sustainable chemistry, the company is committed to full regulatory compliance and continuous improvement and development of its product portfolio towards sustainability.

Further components

Clariant's product stewardship practices are embedded in the innovation process, guaranteeing that chemical safety is considered throughout the entire product life cycle. Regulatory compliance and communication to customers on the safe use and management of the products are thus ensured when placing products on the market.

Regulatory Compliance

Clariant monitors and assesses the impact of changes in chemical management regulations worldwide as well as emerging new chemicals management systems globally to be prepared for any shifts in the regulatory landscape. Proximity to regulatory bodies and participation in expert groups and associations support proactive management. Ensuring regulatory compliance also includes substance registration with relevant regional and national authorities and supply chain communication on product safety.

European Union Registration, Evaluation, Authorization, and Restriction of Chemicals (EU REACH) Targets

Clariant is fully committed to the REACH targets. After successfully registering all relevant chemicals in 2018, the company ensures that all product dossiers are kept up to date. Clariant maintains cooperation with regulatory bodies, such as the European Chemicals Agency (ECHA) and EU member states. Clariant is committed to the CEFIC / ECHA Cooperation Agreement on the Review/Improvement of REACH Registration Dossiers and is part of the »REACH Dossier Improvement Action Plan.«

Clariant goes beyond mere compliance: Its Global Toxicology & Ecotoxicology Group has initiated and codeveloped in a Cefic (European Chemical Industry Council) LRI (Long-Range Research Initiative) project the so-called AMBIT tool—an open IT-based system on a predictive toxicity model. AMBIT helps predict the properties of one chemical using the known properties of similar chemicals. The European Chemicals Agency (ECHA) supports this tool by giving access to nonconfidential registration data.

Policies and Guidelines

As a signatory to the Responsible Care® Declaration, Clariant supports the Responsible Care® Global Charter. Clariant embedded the Responsible Care® principles in its Sustainability Policy, underlining the company's strong commitment and leadership in sustainable chemistry, and promoted the program in several countries. Reflecting a holistic approach to fulfilling the Responsible Care® principles, Clariant's Global Product Stewardship Organization takes care of the health, safety, environmental, and other regulatory aspects of the company's portfolio throughout product life cycles, following clear guidelines and process descriptions.

Product Portfolio Sustainability Screening

Beyond product safety, a sustainability screening is mandatory for all major product developments at Clariant. Under the Portfolio Value Program (PVP), Clariant systematically assesses its product portfolio for strengths and weaknesses in terms of sustainability, comparing its performance against alternatives on the market and against defined sustainability risks and benefits. The product portfolio, which includes all existing products and the innovation pipeline, is screened for sustainability performance based on 36 criteria that consider the entire life cycle and all three dimensions of sustainability: people, planet, and performance. Clariant awards products that show an excellent sustainability profile based on the PVP criteria with its EcoTain® label. These products are nominated by Business Units and undergo the scrutiny of an internal EcoTain® panel, comprised of Sustainability Transformation, Product Stewardship, Innovation, regional experts, and Group Communications.

By participating in the development of a Product Portfolio Steering Framework of the World Business Council for Sustainable Development (WBCSD), Clariant supported the development of a set of sustainability indicators for evaluating product portfolios in the chemical industry. The initiative supported bringing best practice forward in evaluating product portfolios from a sustainability perspective and encourages companies to adopt methodologies for evaluating and steering their product portfolio toward increasing sustainability based on facts, market, and stakeholder expectations.

In 2020, Clariant also started to revise the Portfolio Value Program to ensure that the latest sustainability trends and developments are well reflected in the evaluation of the innovation and product portfolio. The update is expected to be completed in 2021.

Animal Testing

Clariant is committed to research on alternatives to animal testing. Clariant recently participated in a project led by the Leibniz Research Center for Working Environment and Human Factors (IfADo), which was awarded the »Animal Welfare Research Prize 2019« by the German Federal Ministry of Food and Agriculture because of its potential to reduce or replace animal testing in the long term. The research team developed a new test to assess how well an in vitro system reflects the processes in the human body, which could help to better predict drug-induced liver damage resulting from daily drug use. As a result of ongoing efforts to contribute to the development of in vitro systems as alternatives to animal testing in 2020, Clariant Global Toxicology, in collaboration with the Leibnitz Research Center, was again able to report on the development of a hiPSC-based alternative in vitro test system that uses genome-wide analysis to assess developmental neurotoxicity (DNT).

103-3 Evaluation of the management approach and measurement

Evaluation and outcome

The overall evaluation of the management approach includes internal controls, Portfolio Value Program progress-tracking dashboards, benchmarking against peers using external references, such as the Dow Jones Sustainability Index, as well as participation in external networks, discussions, and report reviews.

Clariant is a member of the World Business Council on Sustainable Development (WBCSD). In this forum, Clariant develops and discusses best practices in the chemicals industry. For example, Clariant contributed to the development of a sustainable portfolio assessment methodology for the chemical industry.

In the development of the Portfolio Value Program, external stakeholders such as customers, suppliers, scientists, nongovernmental organizations, policymakers, and authorities were consulted. They commended the 36 criteria for being comprehensive and fit for purpose. In 2015, Clariant received an independent third-party assurance statement on the PVP/EcoTain® system from PricewaterhouseCoopers (PwC).

GRI 416:2016 Customer Health and Safety

416-1 Assessment of the health and safety impacts of product and service categories

✔ PwC CH	2018	2019	2020
Percentage of significant product and service categories for which health and safety impacts are assessed for improvement[1]	80%	80%	76%

[1] Assessments are performed as part of the Portfolio Value Program (PVP) screening mentioned under 103-3.

416-2 Incidents of noncompliance concerning the health and safety impacts of products and services

In 2020, there were no fines, penalties, or warnings resulting from incidents of noncompliance with regulations or voluntary codes concerning the health and safety impacts of products and services.

GRI 417:2016 Marketing and Labeling

417-1 Requirements for product and service information and labeling

Clariant fosters permanent contact with customers, who are supported in the application and use of Clariant's products. Laboratories are available to solve any specific problems. The service offering also features comprehensive product information, particularly with respect to optimum and safe application, health risks, waste disposal, and handling of packaging.

Safety data sheets containing the relevant substance data, information on safe handling and storage of products, and measures in the event of incidents such as product spillages/release and fire are provided by Clariant to all parties involved in the handling of the substances. Clariant has a close relationship with its customers and provides all REACH-relevant information about the supply chain through an IT tool. With this, every Clariant customer is able to securely receive REACH-relevant information on the specific products they have purchased. Comprehensive customer support services ensure compliance with the high communication requirements set by REACH regarding the use of products in the customer chain.

417-2 Incidents of noncompliance concerning product and service information and labeling

In 2020, there were no fines, penalties, or warnings resulting from incidents of noncompliance with regulations or voluntary codes concerning information and labeling of products and services.

417-3 Incidents of noncompliance concerning marketing communications

In 2020, Clariant had no incidences of noncompliance with regulations or voluntary codes concerning marketing communications.

Talent Attraction and Development

Management Approach

103-1 Explanation of the material topic and its boundary

Reason for materiality

Empowered, motivated, and highly skilled employees who create value for the company and its stakeholders are essential to Clariant's long-term success. Clariant is thus striving to build its reputation as a preferred employer in order to attract, engage, develop, and retain the right people with the right skills.

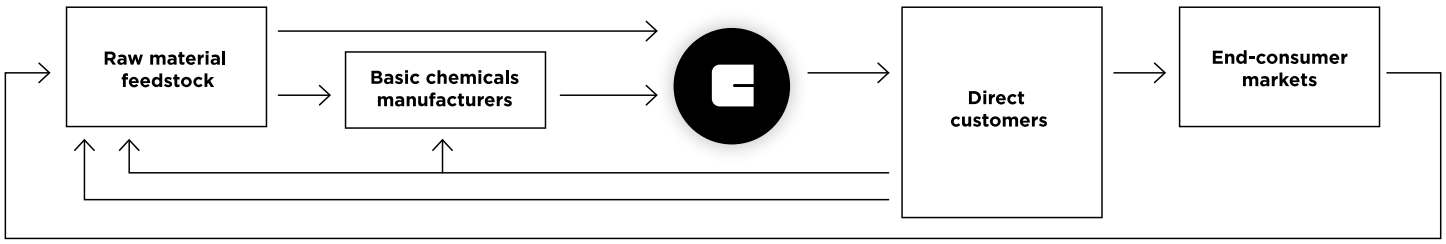
Contribution to value creation

Efficient recruitment and onboarding processes help new employees quickly contribute to the implementation of the Business Units' strategies. Skills development is also imperative to remain agile and drive innovation in fast-evolving markets.

Boundary

Human resources management is central for all Business Areas and regions of Clariant.

Impact in the value chain



103-2 The management approach and its components

Responsibilities and resources

Engaging and developing talent is a shared responsibility of all management functions. Clariant's leaders are key in shaping a high-performance culture. They are supported by Group Human Resources, which has established strong processes for talent acquisition, onboarding, performance management, and talent management in all regions. The functional area »Senior Management & People Development« holds the main responsibility for attraction and development of talent. It comprises 39 people. Globally, Clariant's operational and strategic Human Resources departments comprise 230 employees dedicated to Talent Attraction and Development.

Goals and targets

The objective of talent management is to have a consistent and structured talent pipeline for each management level and to ensure the best fit between role requirements and individual capabilities.

Further components

For the management of Talent Attraction and Development, Clariant abides by its Global Talent Acquisition Policies (Recruitment Policy, Global Recruitment Agency Policy, Onboarding Policy, and Employee Referral Policy). The policies clarify and specify the roles and responsibilities of the hiring manager, recruiter, and other Human Resources personnel to ensure an efficient, effective, and professional talent acquisition process. More specifically, highly trained talent acquisition teams partner with the Business Units to identify and select the best external talent. Employer branding programs create awareness in the job market and attract potential candidates. Moreover, line managers are trained in the »License to Hire« program to ensure they make the right hiring decisions.

Maintaining a structured talent pipeline entails systematically identifying, developing, and retaining internal talent. This ensures successful short-, mid-, and long-term succession planning and availability of candidates. For years, Clariant has filled at least 80% of open positions at the management level with internal candidates. Dedicated talent managers review potential talents, manage talent review sessions, create individual development plans, and participate in internal placement decisions. They also organize so-called »talent engagement sessions« to give internal talent visibility and exposure to senior managers and to receive feedback on corporate culture topics.

Clariant's People Excellence strategy ensures that the different employee initiatives are closely linked to business needs and implemented effectively and efficiently. It specifies the people requirements needed for the successful execution of the corporate and the business strategy and breaks down business challenges into people-related measures that address existing shortcomings in a focused manner.

103-3 Evaluation of the management approach and measurement

Evaluation and outcome

The evaluation of the management approach regarding »Talent Attraction and Development« includes a structured analysis of the results and impact of diverse talent management initiatives. All trainings are carefully evaluated. The feedback collected after each training course is systematically reviewed, and required amendments are performed to ensure high-quality training courses. For Clariant's Leadership trainings, for example, pre- and debriefing calls with participants are conducted. Also, a feedback survey containing quantitative and qualitative questions is sent out directly after the training, followed by a survey after three months to evaluate the impact of the training on daily work.

In 2020, the average feedback score for Clariant Academy trainings was 5.0 (with a maximum possible score of 6.0). This very high rating was in part influenced by the reduced number of trainings that could be conducted in the reporting year. For selected programs of the Clariant Academy, feedback on the medium-term impact is collected from participants.

Other evaluations include competency assessments for key position holders, management appraisals for external or internal placement of key positions as well as yearly performance evaluations. All evaluations are documented, transparently shared, and followed up on with individual development planning.

GRI 404:2018 Training and Education

404-1 Average hours of training per year per employee

✔ PwC CH	2017	2018	2019	**2020**[1]
Number of training hours	**192 435**	**234 240**	**205 861**	**113 190**
Male	n.a.	167 734	140 548	75 372
Female	n.a.	66 506	65 277	37 818
Management Level 1-5	n.a.	26 679	19 318	8 897
Local managers, professionals, and employees	n.a.	207 561	186 543	104 293
Number of employees participating in training	9 720	15 791	13 891	12 630
Average hours of training that the organization's employees undertook during the reporting period	19.8	14.8	14.8	9.0

[1] 80% of in-person trainings had to be canceled due to the COVID-19 pandemic.

404-2 Programs for upgrading employee skills and transition assistance programs

The Clariant Academy encompasses all global learning offerings designed to support Clariant's strategy and promote common language and values across the organization. A global nomination process for the Clariant Academy programs ensures that all relevant people participate in the training programs. Besides the Clariant Academy programs, local trainings, social learnings such as learning communities, as well as mentoring, peer coaching, and on-the-job learning opportunities are offered.

The training offering is based on the 70:20:10 model from Lombardo and Eichinger, which corresponds to a proportional breakdown of effective learning. The Individual Development Plans for employees generally include 10% coursework and formal training, 20% interaction and peer exchange, and 70% challenging assignments to promote learning on the job. Overall, the training participation covers the areas of functional skills, safety and sustainability, personal development, leadership, legal/compliance as well as IT skills and general management skills.

Within the Clariant Academy, global trainings targeted at business, leadership, and functional skills offer a standard curriculum for each level in the organization. Furthermore, the annual training catalog with a focus on leadership skills and personal development extends the training offering with recommendations on external classes. Clariant's support of its employees' education is described in global and regional learning policies, which include budget frameworks and study assistance guidelines.

Clariant is increasingly adding multiple new offerings to enhance digital learning. A digital academy portfolio is now available to employees and leaders. New virtual learning elements include microlearning videos, a virtual self-learning hub with recommended content sorted by business type or skill, and guided learning nuggets on topics such as time management or resilience.

In 2020, 191 employees benefited from four Clariant Academy programs. Due to the pandemic and travel restrictions, about 80% of in-person trainings had to be canceled. New virtual sessions were introduced, with time invested to design and implement. Overall, the training participation covers the areas of safety and sustainability (32%), legal and compliance (26%), functional skills (20%), IT skills (11%), personal development (8%), leadership (2%), as well as general management skills (1%). This includes training beyond Clariant Academy.

404-3 Percentage of employees receiving regular performance and career development reviews

✔ PwC CH	2017	2018	2019	2020
Total number of employees who receive regular performance and career development reviews	**10 300**	**10 350**	**10 063**	**7 335**
Management Level 1-5	900	819	776	658
Local managers, professionals, and employees	9 400	9 531	9 287	6 677
Male	n.a.	7 611	6 687	5 125
Female	n.a.	2 739	3 376	2 210
Percentage of total employees who receive regular performance and career development reviews	**51%**	**58%**	**58%**	**55%**
Male	n.a.	55%[1]	50%[1]	50%[1]
Female	n.a.	93%[1]	91%[1]	73%[1]

[1] The percentage is calculated based on the total of employees in the respective group.

One of the aims of the annual »performance dialog« is to identify the ongoing development potential of all employees and to agree on appropriate development goals. Currently, the performance-management process comprises 55% of all employees.

MATERIAL TOPICS – ADVANCE

Employee Engagement

Management Approach

103-1 Explanation of the material topic and its boundary

Reason for materiality

Clariant carefully manages Employee Engagement to be an employer of choice, attracting top talent and helping the company deliver lasting results. Employee Engagement and retention programs improve Clariant's internal and external reputation as an attractive employer, increasing the interest of potential external candidates and the motivation and commitment of Clariant's employees.

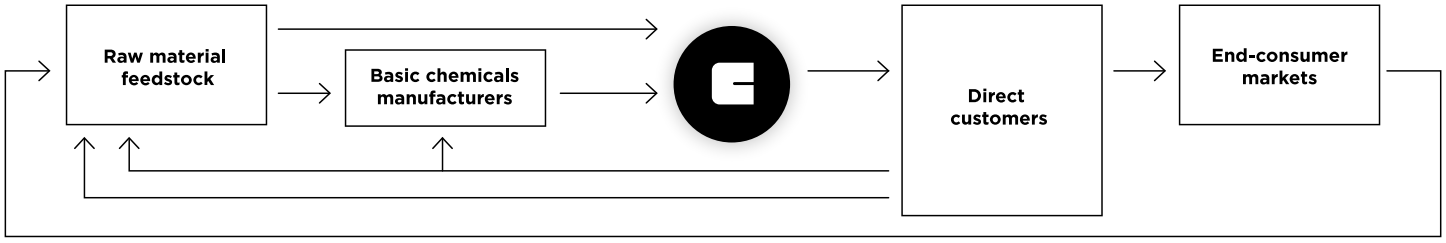
Contribution to value creation

By enhancing motivation and commitment, Employee Engagement and retention programs drive employee performance. As a result, they reduce employee turnover, mitigate early-leaver risks, and lower cost per hire, thereby supporting Clariant's overall cost-saving targets.

Boundary

Knowing that real performance excellence comes from challenged, empowered, and rewarded teams, Clariant continuously strives to keep people motivated and increase its Employee Engagement levels worldwide.

Impact in the value chain



103-2 The management approach and its components

Responsibilities and resources

Employee Engagement is a responsibility of each leader in the organization. The strongest drivers of engagement are trust in the leadership team, a motivating work environment and atmosphere, a vision that employees can identify with, and a clear sense of purpose in what they are doing.

Goals and targets

The primary objective of Employee Engagement is to provide clear direction to people by explaining strategic decisions and the implications of everyone's responsibilities. It also enables employees to deliver on challenging objectives by providing the necessary infrastructure and implementing consistent processes.

Further components

Clariant's strategies for Employee Engagement include regular communication on the direction of the company, involvement of employees in strategy sessions, and inclusive leadership. Key parameters for employee engagement include authentic leadership, recognition programs, career opportunities, and personal development.

Clariant's Employee Policy includes key principles and minimum standards for working conditions and labor practices. These are crucial to ensure a fair, transparent, and discrimination-free work environment. The policy is globally applicable and must also be applied by employment agencies and contractors doing business with Clariant. The framework underscores Clariant's commitment to its six corporate values: Drive for Excellence, Disciplined Performance Management, Deliver to Promise, Courageous and Decisive Leadership, Lived Appreciation, and Corporate Responsibility.

Clariant has a comprehensive Recognition Program in place that acknowledges strong results with a diversity of rewards. The program includes monetary recognition awards for outstanding achievements and nonfinancial awards that encourage employees to recognize the efforts and contributions of their peers and supervisors in the form of vouchers or presents.

Through Clariant's referral program, employees who recruit new candidates from their professional networks that result in a successful hire receive a cash reward.

The Global Benefits Policy contains key elements to be covered within all local benefit programs, including benefits related to retirement, flexible work arrangements, death, travel, accident, health, and well-being. It also acknowledges country-specific circumstances. The policy was developed based on the input received through a global benefit survey conducted in 2018.

Read more: Integrated Report, Employee Engagement

103-3 Evaluation of the management approach and measurement

Evaluation and outcome

Clariant offers diverse platforms to collect employees' feedback related to their engagement. Employee engagement surveys, team barometer evaluations, and functional feedback surveys are conducted on a regular basis.

To evaluate Employee Engagement across the organization, Clariant conducts biannual »Pulse Surveys« with a group randomly selected from the global workforce. Compared to former engagement surveys, this format covers more strategic and Clariant-specific topics, such as strategy, vision, and change, and asks for concrete reasons why people want to work for Clariant. The survey results are used for organizational development and help Clariant position itself as an employer of choice. The company plans to use »Pulse Surveys« to involve the different Business Units and service units more systematically to ensure that the specifics of each unit are sufficiently considered. In 2020, the second global »Pulse Survey« was conducted. In 2020, Clariant addressed the entire management-level population, consisting of 750 employees, of which 60% responded. Since this represents a different employee pool than in 2018, the survey results cannot be directly compared. The company will issue an employee survey with the broader Clariant population again in 2021.

The responses revealed that Clariant's overall strategy, goals, and sustainability strategy are well understood and supported by management. A clear majority of responding employees feel safe and energetic at work. They enjoy their work, are proud to work for Clariant, and would recommend the company as an employer to others.

Indicators

Apart from the survey, Clariant tracks employee turnover and compares it to industry benchmarks to detect and mitigate decreases in employee retention.

GRI 202:2016 Market Presence

202-1 Ratios of standard entry-level wage by gender compared to local minimum wage

Clariant pays wages and salaries that are determined by local, relevant competitive market data rather than by legally defined minimum wages. However, as prescribed by Clariant's global Employment Policy, minimum wage standards always have to be adhered to by local Human Resources departments.

202-2 Proportion of senior management hired from the local community

✔ PwC CH	2017	2018	2019	2020
Percentage of senior management at significant locations[1] of operation who are hired from the local community	75%	57%	60%	60%

[1] All relevant Group companies except those in North America, where no nationality data is recorded.

At the end of 2020, 60% of all senior managers (Executive Committee and top four management levels) were citizens of or had an indefinite right to reside in the country where they were employed. Within the European Union, nationalities of all member states are considered »local.«

GRI 401:2016 Employment

401-1 New employee hires and employee turnover

✔ PwC CH	2017	2018	2019	2020
Total number of new employee hires	**1983**	**2142**	**1570**[1]	**918**[2]
Male	1412	1453	1080	647
Female	571	689	490	271
Under 30	969	985	744	393
30-50	922	1045	750	464
Over 50	92	112	76	61
Europe	622	751	561	304
Latin America	341	359	317	156
Middle East/Africa	130	93	61	31
North America	402	436	273	92
Asia-Pacific	488	503	358	335
Employees who left	**1991**	**2047**	**1817**	**1522**
Male	1448	1515	1322	1085
Female	543	532	495	437
Under 30	603	540	461	393
30-50	839	970	915	668
Over 50	495	537	441	461
Europe	658	588	544	505
Latin America	400	358	398	310
Middle East/Africa	90	142	78	39
North America	424	536	433	297
Asia-Pacific	419	423	364	371
Turnover rate (%)	11.0	11.1	10.3	10.3[3]

[1] The decline in new employee hires was due to a hiring freeze in 2019.

[2] The decline in new employee hires was due to the COVID-19 pandemic and the divestment of Business Unit Masterbatches.

[3] Excluding data from discontinued Business Unit Masterbatches from H1 for better comparison. Including these statistics, Clariant's 2020 turnover rate is 11.2%.

401-2 Benefits provided to full-time employees that are not provided to temporary or part-time employees

No intentional differentiation is made in the company benefits provided by Clariant due to the type of employment contract. This does not exclude differences that depend on the individual case and local circumstances, such as local industry standards or cultural expectations. The deciding criterion in this case is the customary market standard.

401-3 Parental leave

	2017	2018	2019	2020
Total number of employees who were entitled to parental leave, by gender	**17 687**	**17 382**	**17 223**	**13 235**
Male	13 986	13 613	13 497	10 191
Female	3 701	3 769	3 726	3 044
Total number of employees who took parental leave, by gender	**644**	**732**	**643**	**445**
Male	482	464	432	317
Female	162	268	211	128
Total number of employees who returned to work in the reporting period after parental leave ended, by gender	**611**	**689**	**599**	**471**
Male	477	466	419	318
Female	134	223	180	153

Clariant promotes family-friendly job opportunities. All mothers are guaranteed a comparable position upon their return to work for up to one year following the birth or adoption of a child. For the two years following the birth or adoption, Clariant grants all parents a minimum of ten days of paid leave for family purposes in addition to their standard annual vacation. Considering that all permanent employees of Clariant are theoretically entitled to this provision, this would extend to all 10 191 males and 3 044 females for 2020. In 2020, 128 mothers and 317 fathers took advantage of this opportunity. In the same year, 471 employees returned to their workplaces, of which 153 were female and 318 were male.

GRI 402:2016 Labor/Management Relations

402-1 Minimum notice periods regarding operational changes

Clariant complies with all local statutory and operational requirements regarding the provision of information to employee representatives and employees. All employees are promptly informed of all significant operational changes. In addition, regular and ad hoc information is provided to all employees via the intranet as well as information letters from the CEO and management in all relevant languages. Corporate information sessions such as town hall meetings are held regularly.

GRI 405:2016 Diversity and Equal Opportunity

405-1 Diversity of governance bodies and employees

✔ PwC CH	2019	2020
Percentage of individuals within the Board of Directors		
Male	75%	75%
Female	25%	25%
30-50	0%	8%
Over 50	100%	92%

✔ PwC CH	2019		2020	
	Male	Female	**Male**	**Female**
Number of employees by age group (FTEs)	**13 497**	**3 726**	**10 214**	**3 020**
Under 30	1 761	713	1 367	529
30-50	7 844	2 248	5 889	1 909
Over 50	3 891	766	2 959	582

✔ PwC CH	2019		2020	
Breakdown of employees by nationality	FTEs	Percent	**FTEs**	**Percent**
German	4 595	26.7%	4 023	30.4%
Indian	1 798	10.4%	1 517	11.5%
Chinese	1 181	6.9%	1 031	7.8%
Brazilian	1 179	6.8%	981	7.4%
Indonesian	724	4.2%	620	4.7%
Mexican	597	3.5%	521	3.9%
Spanish	427	2.5%	310	2.3%
Turkish	396	2.3%	283	2.1%
Polish	351	2.0%	283	2.1%
Japanese	279	1.6%	260	2.0%
Argentinian	219	1.3%	191	1.4%
Colombian	268	1.6%	183	1.4%
French	236	1.4%	167	1.3%
Ukrainian	153	0.9%	145	1.1%
South African	182	1.1%	142	1.1%
Swiss	139	0.8%	141	1.1%
Italian	515	3.0%	140	1.1%
Malaysian	191	1.1%	[1]	[1]

[1] Numbers below 1.0% threshold

✔ PwC CH	2019		2020	
Breakdown of employees by nationality	FTEs	Percent	FTEs	Percent
Thai	181	1.0%	[1]	[1]
Others (incl. North America, for whom no nationality data is recorded)	3 612	21.0%	2 299	17.4%

[1] Numbers below 1.0% threshold

	2018	2019	2020
Total management functions	**819**	**812**	**691**
Male	688	674	575
Female	131	138	115
Senior management functions[1]	**248**	**234**	**196**
Male	219	209	177
Female	29	25	19
Junior management functions[2]	**571**	**578**	**495**
Male	469	465	398
Female	12	113	96

[1] Executive Committee and Management Levels 1-4

[2] Management Level 5

405-2 Ratio of basic salary and remuneration of women to men

With regard to Clariant's zero-tolerance approach to any form of discrimination, regional and local Human Resources departments work toward ensuring avoidance or elimination of any discriminatory practices in work-related activities, particularly regarding remuneration, training, vocational guidance, and social security. Globally, the average basic salary of female employees was 93.27% of the average male employee salary in 2020. New hires and exits were excluded from these calculations.

Ethics and Compliance

Management Approach

103-1 Explanation of the material topic and its boundary

Reason for materiality

Clariant aspires to be perceived by its stakeholders as a world-class, high-performance company that acts with the highest standards of ethics and integrity. It believes that sustainable business success is closely linked to compliance with laws, regulations, ethical values and integrity standards. Clariant's stakeholders and society at large do not tolerate bribery, corruption, or anti-competitive behavior—adhering to this expectation is a mandate for a reputable and sustainable company.

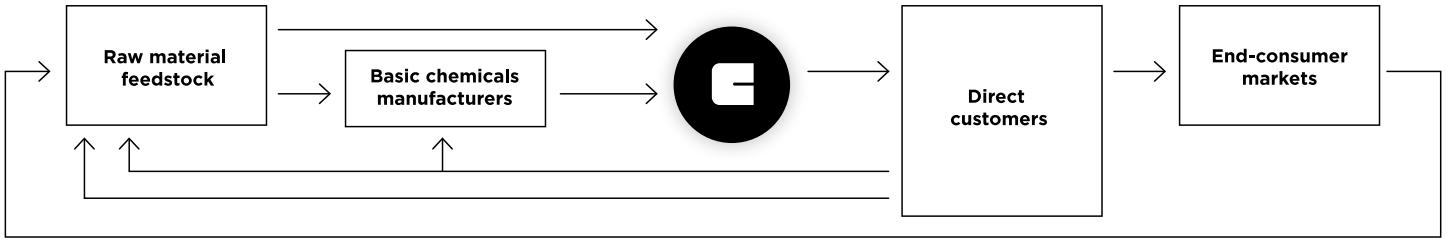
Contribution to value creation

Applying the highest standards of ethics and integrity is fundamental to sustainable growth and essential for Clariant's long-term business success.

Boundary

Compliance and ethical behavior apply not only to Clariant's own operations, but also to its third parties acting for or on behalf of Clariant, who are undergoing a detailed due diligence process.

Impact in the value chain



103-2 The management approach and its components

Responsibilities and resources

Clariant's Business Units are responsible for managing business ethics and compliance in their daily operations. Group Compliance and Group Legal Services provide support to the businesses in adhering to Clariant's ethical standards by providing trainings and advice as well as by gaining trust from stakeholders and ensuring an impeccable reputation in the marketplace. Since 2019 Clariant has a full-time Head of Compliance, full- or part-time Regional Compliance Officers in each region, Country Compliance Officers, and an Ethics and Integrity project manager dedicated specifically to Ethics and Compliance. They are supported by employees from Group Legal Services.

Clariant's Data Privacy Organization is responsible for creating awareness around data privacy and implementing the Data Privacy Program throughout the organization with Data Privacy Champions in each Business Unit and region.

Goals and targets

Clariant does not have goals and targets currently in place for Ethics and Compliance.

Further components

The Strategic Integrity Roadmap, with its five-pillar approach, provides guidance to achieve the highest standards for responsible business conduct by combining a leadership program, legal and compliance risk management, training and communication, standards and controls, as well as program measurement, auditing, and monitoring.

Code of Conduct and Policies

A central instrument to ensure ethical behavior is Clariant's Code of Conduct, which guides employees in reflecting on decisions and acting responsibly. In 2019, Clariant revised its Code of Conduct into a new Code of Ethics, which will be published on its website in 2021. All employees will be trained on the Code of Ethics.

Besides its globally applicable Anti-Bribery and Anti-Corruption Policy (ABC Policy) and Gift Policy, Clariant developed local policies regarding gifts, entertainment, and community engagement work. The company also regularly updates its comprehensive antitrust compliance program and guidelines.

Training and Communication

Clariant offers regular e-learning courses on anti-bribery and anti-corruption. Special target groups receive further face-to-face training courses. New employees are familiarized with the Code of Conduct and Anti-Bribery and Anti-Corruption Policy. Regular classroom trainings and e-learnings on antitrust matters are mandatory for employees working in procurement, marketing, sales and other relevant functions, as set out in Clariant's Antitrust Training Policy.

Data Privacy Program and Governance

In response to the General Data Protection Regulation (GDPR) of the European Union, Clariant implemented a Data Privacy Program in 2018. The program consisted of a policy framework that encompasses Data Privacy Policy, a general Directive on how to process personal data, SOPs on selected aspects of the Data Privacy Policy, and basic Data Privacy e-learning courses to familiarize all employees with the principles of the data privacy policy, as well as deep dives for target employees.

Clariant also established an internally certified Data Privacy Organization. Employees are trained on the main topics of the International Association of Privacy Professionals (iapp.org). The certified employees are responsible for creating awareness and building up the relevant knowledge throughout the company with a »train the trainer« approach.

Grievance Mechanism

Employees can confidentially report malpractices to the Ethics & Integrity organization. All violations against the Code of Conduct and any workplace-related compliance issues can be reported through the »Clariant Integrity Line,« which is also available for Clariant's business partners.

103-3 Evaluation of the management approach and measurement

Evaluation and outcome

The Ethics and Risk Management Committee (ERMC) was renamed this year into the Executive Committee Sub Committee Ethics & Risk (ECS E&R)— and reviews regular reporting on the delivery of the Strategic Compliance Roadmap as well as updates on individual measures, cases reported, and remediation taken. In addition, ERM was integrated in the committee and the replication on a regional level has been reviewed and assessed by the ECS E&R for four regions to further foster a culture of ethics and integrity across the organization. ESHA and Information Security are members of ECS E&R and provide yearly overviews of their programs. These insights help Clariant ingrain a culture of ethics & integrity throughout the organization and provide assurance on the program.

Clariant designed its five-pillar strategy based on a detailed three-year plan, including key performance indicators that have been tracked since 2018. These indicators are further evaluated to continuously improve the effectiveness of Clariant's approach. Both the Executive Committee and Audit Committee were involved in setting the indicators. The ECS Executive Committee receives quarterly updates on the progress and measures that are taken, and the Audit Committee receives biannual updates.

Clariant employs a due diligence process to examine distributors and agents. The process ensures that they are not involved in any form of bribery or compliance violation, they are reput-

able in good standing, and that they do not appear on a sanction list. It further verifies that they have an appropriate compliance framework in place and have access to a relevant training program provided by Clariant.

Clariant's investigation process applies to all reported concerns and breaches of the Code of Conduct. Corporate Functions (Group Compliance, Group Human Resources, Corporate Auditing, Environmental Safety and Health Affairs (ESHA), and other functions where appropriate) are responsible for the investigation, and the global ECS E&R and the Regional Ethics and Risk Management Committees are responsible for remediation.

Indicators

To evaluate effectiveness, Clariant internally tracks a total of 25 indicators in the categories »Leadership,« »Risk Management,« »Training,« »Communication,« »Standards and Controls,« and »Monitoring, Auditing, and Reporting.« Clariant also tracks the number and type of the process changes made in response to allegations.

In 2020, Clariant received 73 reports, including 9 questions and 64 reports through the »Clariant Integrity Line.« A case can relate to several issue types. Out of the 64 reports, 43 were related to business integrity, and 23 were related to treatment of employees. Among the other concerns highlighted, seven were related to Health & Safety or Environmental violations, and the remaining cases relate to Information Security, Cyber Risk, Data Privacy and others.

GRI 205:2016 Anti-corruption

205-1 Operations assessed for risks related to corruption

As part of Clariant's ongoing internal auditing, corruption risks are investigated during reviews of high-risk businesses in high-risk environments with high-risk customers. In addition, in 2020, Clariant drafted a holistic fraud program; implemented a system-based, multi-factor third-party risk management system; and mandated job rotation for employees in exposed functions whenever possible.

205-2 Communication and training on anti-corruption policies and procedures

✔ PwC CH	2017	2018	2019	**2020**
Percentage of Board members informed about anti-corruption policies	50%	50%	100%	50%
Percentage of employees informed about anti-corruption policies	60%	40%	90%	14%
Percentage of business partners informed about anti-corruption policies	50%	40%	60%	60%
Percentage of Board members who received anti-corruption training	45%	50%	100%	50%
Percentage of employees who received anti-corruption training	60%	30%	86%	14%
Percentage of employees who received compliance training	60%	45%	86%	14%

205-3 Confirmed incidents of corruption and actions taken

In 2020, there were nine allegations regarding bribery, corruption, and kickbacks brought forward. They led to disciplinary actions against seven employees. In four cases, the responsible employee was dismissed, and one case is still under investigation.

There were no legal proceedings against Clariant or its employees for alleged corruption. Clariant terminated relationships with six business partners (agent, distributor, or consultant).

GRI 206:2016 Anti-competitive Behavior

206-1 Legal actions for anti-competitive behavior and antitrust and monopolistic practices

In 2020, Clariant was fined EUR 155.8 million by the European Commission who had completed its investigation into the ethylene purchasing market. For further information, please refer to the Financial Review Full Year 2020. In 2020, there were no further reported legal actions for anti-competitive behavior or antitrust or monopolistic practices. Clariant reports significant legal actions in its Integrated Report.

GRI 419:2016 Socioeconomic compliance

419-1 Noncompliance with laws and regulations in the social and economic area

In 2020, Clariant was fined for not having an import license for potassium permanganate in China.

Human Rights

Management Approach

103-1 Explanation of the material topic and its boundary

Reason for materiality

Clariant is firmly committed to protecting human rights during all phases of value creation within all Business Units as this is a prerequisite for sound business governance and license to operate.

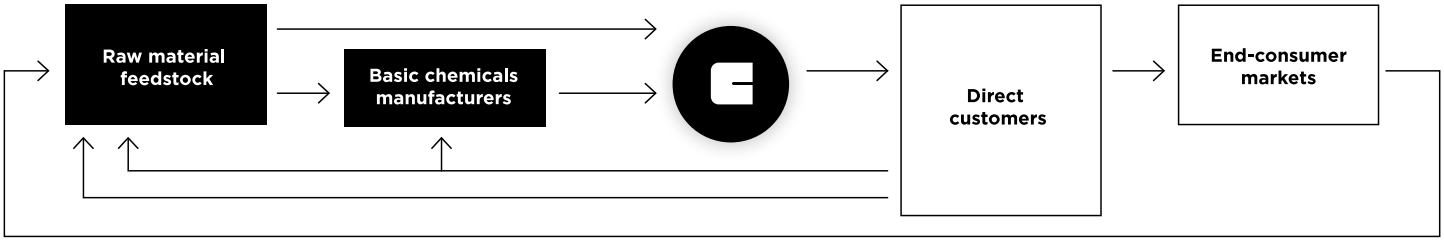
Contribution to value creation

Respecting human rights is key to sound business governance and to promoting socially responsible growth.

Boundary

Clariant's commitment to human rights applies not only to Clariant's own business operations, but also to its entire supply chain and contracted workers. It expects suppliers and business partners to maintain the same high human rights standards.

Impact in the value chain



103-2 The management approach and its components

Responsibilities and resources

The newly established Sustainability Transformation unit, Human Resources, Legal, and Procurement departments have a shared responsibility for managing human rights.

Goals and targets

Clariant does not have goals and targets currently in place for human rights.

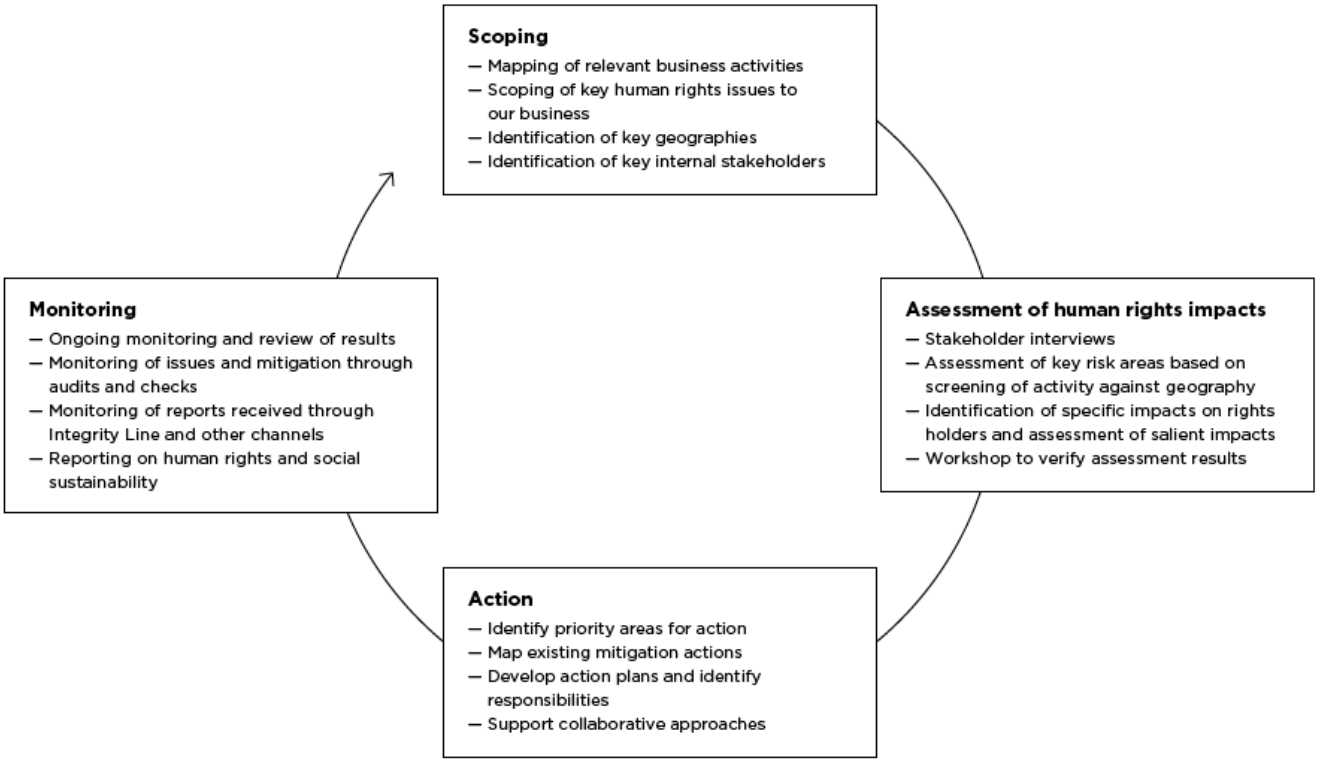
Further components

Clariant's commitment to respecting human rights is enshrined in its Human Rights Policy Statement, in which Clariant reaffirms its commitment to the United Nations Human Rights Declaration and the ILO Declaration on Fundamental Principles and Rights at Work. The policy statement applies to all direct operations and activities and articulates a clear expectation of suppliers and contractors to uphold the same standards.

In addition, requirements regarding key human rights principles are included in Clariant's Code of Conduct and its update to be published at the beginning of 2021, the Code of Ethics, the Code of Conduct for Suppliers, and the Employment Standards Guidelines, which protect workers' rights with regard to nondiscrimination, forced labor, child labor, fair working conditions, freedom of association, privacy, effective remedies, and workplace health and safety. The Code of Ethics is binding for Clariant's direct operations, including all joint ventures that are controlled by Clariant or in which it holds a majority interest. The Code of Conduct for Suppliers extends to Clariant's suppliers and their contractors. The rights of community members—particularly regarding environmental health and safety—are a key priority for Clariant. Thus, it protects them with a comprehensive set of binding environmental, health, and safety rules.

Clariant is a signatory to the UN Global Compact. It also strongly supports collaborative initiatives that promote sustainability and respect for human rights across the industry as a member of Together for Sustainability (TfS) and the Roundtable on Sustainable Palm Oil (RSPO).

In 2016, Clariant carried out a human rights due diligence assessment with the support of external human rights experts to evaluate the potential human rights impacts of its operations and activities as well as the effectiveness of the management and monitoring systems in place. The accompanying graph illustrates the key elements of the due diligence process.



Through a series of interactive working sessions, several key functions and departments prioritized activities based on their scale and relevance to the business and their probability of having adverse effects on the human rights of workers, communities, and other groups. A human rights assessment was carried out for a number of priority activities, integrating both internal and external risk factors, such as complex subcontracting arrangements and vulnerabilities of specific groups, as well as aggregate human rights risk levels of countries and industries. The evaluation of environmental and social impacts, as well as labor rights in Clariant's own operations and along its supply chain, played an important role in determining the extent to which Clariant appropriately mitigates adverse human rights impacts.

The assessment found that Clariant has a comprehensive set of policies, guidelines, and processes in place to ensure the implementation of its human rights commitments. In addition, it found that specific mitigation actions had been conducted for some of the high-risk areas identified in the human rights impact assessment. The assessment further concluded that Clariant's potential human rights impacts primarily relate to contract labor and the supply chains for natural raw materials, particularly in geographies with weak national legal frameworks.

Building on this assessment, Clariant carried out a review of the legal requirements, conditions, and control measures related to contract labor in India. The review found that the country organization is well aware of the legal requirements and has implemented a clear and comprehensive process, supported by detailed evidence, checklists, and regular exchanges with authorities.

Addressing and closing the identified gaps in Clariant's mitigation framework is a priority in the coming years. Clariant is focused on securing the same requirements for contract labor that are applied by employment agencies and contractors. Regarding the supply chain, Clariant will continue to address supply chain risks based on the geographical origin of particular raw materials to gain a better understanding of potential human rights impacts, especially in high-risk countries.

Consequently, in 2020, Clariant reviewed its conflict minerals approach to ensure compliance with the new EU Conflict Minerals Legislation. In addition, Clariant has also started a comprehensive analysis of its activities to ensure environmental and social sustainability with regard to palm-based raw materials.

103-3 Evaluation of the management approach and measurement

Evaluation and outcome

Clariant relies on well-established management and monitoring systems that enable the company to detect and mitigate potential human rights risks. In the future, Clariant will further align and streamline its activities and have further internal training activities on human rights. The evaluation of the management approach includes benchmarking against Clariant's peers, using external benchmarks such as the Dow Jones Sustainability Index, and participating in external networks, discussions, and report reviews.

GRI 406:2016 Non-discrimination

406-1 Incidents of discrimination and corrective actions taken

✔ PwC CH	2016	2017	2018	2019	**2020**
Total number of incidents of discrimination during the reporting period	4	3	3	2	0

In 2020, Clariant was made aware of no cases.

GRI 407:2016 Freedom of Association and Collective Bargaining

407-1 Operations and suppliers with which the right to freedom of association and collective bargaining may be at risk

Clariant supports freedom of association. As part of this, it respects the right of employees to join unions and be represented by representatives of these unions internally and externally in accordance with the applicable national or local laws and practices. The same standard is applicable for suppliers. As laid down in the Code of Conduct for Suppliers, they must observe the right of their employees to strike and to be members of trade unions. Clariant knows of no cases in which freedom of association or the right to collective bargaining has been seriously jeopardized or breached.

Clariant is assessing its suppliers in relation to freedom of association, among other social, governance, and environmental topics, together with other companies via the Together for Sustainability (TfS) platform. For more information, please see ((Link)) disclosure 308-1. In 2016, Clariant also launched a human rights due diligence assessment that continued in 2020 with follow-up and mitigation activities.

GRI 408:2016 Child Labor / GRI 409: 2016 Forced or Compulsory Labor

408-1 Operations and suppliers at significant risk for incidents of child labor / 409-1 Operations and suppliers at significant risk for incidents of forced or compulsory labor

Clariant is assessing its suppliers in relation to child and forced labor, among other social, governance, and environmental topics, together with other companies via the Together for Sustainability (TfS) platform.

Read more: GRI Report, 308-1 New suppliers that were screened using environmental criteria

In 2016, Clariant also launched a human rights due diligence assessment that continued in 2020 with follow up and mitigation activities.

Clariant condemns all forms of child labor and respects the rights of children. Consequently, Human Resources ensures by appropriate processes and practices that minimum age provisions of national labor laws and regulations are adhered to and that adequate and verifiable mechanisms for age verification at Clariant workplaces are used by local Human Resources. ILO convention numbers 138 and 182 are expressly acknowledged as the minimum standard. Clariant is not aware of cases of child labor in the company or with its suppliers. Similarly, Clariant rejects any form of forced labor or slavery and is not aware of any cases of forced labor or slavery in the company

GRI 412:2016 Human Rights Assessment

412-1 Operations that have been subject to human rights reviews or impact assessments

Clariant monitors and manages human rights impacts, both in its own operations and in its supply chains, and works to make sure that there is no contribution, knowing or unknowing, to any adverse human rights impacts. Clariant assessed all of its operations globally in a human-rights due-diligence review.

Furthermore, Clariant established the »Clariant Integrity Line« to enable Clariant employees and external stakeholders to bring any concerns they may have to our attention. The Integrity Line is an independent third party-operated channel through which all violations against the Code of Conduct can be reported, including discrimination or violations of human rights.

Read more: Corporate Website, Human Rights

412-2 Employee training on human rights policies or procedures

E-learning modules are mandatory for all employees. Participation in these training courses, which cover different topics or themes of the Code of Conduct, is registered, and defaulters receive a warning. The code is available in all relevant national languages.

412-3 Significant investment agreements and contracts that include human rights clauses or that underwent human rights screening

All investments with a total volume of more than CHF 1 million must be approved by the Investment Subcommittee of the Executive Committee (EC). The subcommittee makes its decision based on financial, strategic, and sustainability criteria, the latter of which also includes human rights aspects.

Policy and Stakeholder Relations

Management Approach

103-1 Explanation of the material topic and its boundary

Reason for materiality

Clariant believes that participating in the public policy dialogue is an important element of corporate responsibility. Thus, in line with the company's strategy and business objectives, Clariant contributes to policy developments in relevant areas such as chemical management and substitution; climate change; energy; bioeconomy; circular economy, with a focus on plastics' circularity; industrial policy and competitiveness; trade; and innovation.

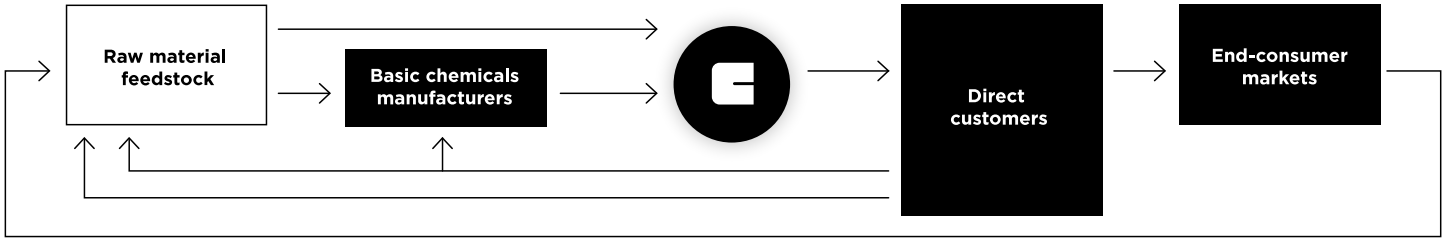
Contribution to value creation

An open, transparent, and trustworthy dialogue with all stakeholders is essential for Clariant. Building networks and relationships within the chemical industry, as well as with policymakers, industry coalitions, and other stakeholders such as nongovernmental organizations (NGOs), helps Clariant anticipate and mitigate risks driven by regulatory or stakeholder pressure, identify business opportunities, and create competitive advantages.

Boundary

The topic is not only relevant for Clariant's operations and value chains, but also impacts its public outreach—for example, via trade associations—to position the company and the chemical industry on strategic policy areas.

Impact in the value chain



103-2 The management approach and its components

Responsibilities and resources

The overall responsibility for policy and stakeholder relations is assigned to the Government Affairs and Advocacy team, operating under Clariant's Sustainability Transformation. At the local

level and within certain sectors, the Business Units and regional organizations have a responsibility to maintain and engage in the policy dialogue as they are well positioned to understand and address the local and sector-specific challenges and stakeholder networks.

Goals and targets

Clariant does not see the need to establish specific goals and targets for policy and stakeholder relations.

Further components

Clariant follows several avenues to contribute to public policy development. It periodically publishes position papers and responds to public stakeholder consultations and surveys. Clariant also anticipates and goes beyond regulatory requirements to abide by its ambitious sustainability commitments, and promotes policy development and stakeholder relations accordingly.

The engagement of Clariant representatives in trade associations and other platforms supports strategic alignment across the industry, provides an opportunity for exchange on industry perspectives and best practices, and brings forward Clariant's views and interests.

Clariant has implemented clear policies for engaging in public policy development, addressing the increasing attention stakeholders and the public pay to such activities. Clariant's Anti-Bribery and Anti-Corruption Policy establishes detailed rules for employees' interactions with public officials and political advisors, as well as for charitable contributions and political donations, and forbids any donations to political parties and related organizations. Clariant openly discloses information about its fields of interest and the scope of public affairs activities, for example, in the »Transparency Register« of the European Union.

Other activities include active participation in associations, such as the European Chemical Industry Council (Cefic), national chemical associations, sectoral business associations, sustainability forums such as the World Business Council for Sustainability Development (WBCSD) or the World Economic Forum (WEF) and ad hoc collaborations with NGOs.

103-3 Evaluation of the management approach and measurement

Evaluation and outcome

Clariant's advocacy activities are strongly linked to the company's growth and sustainability strategy. In the context of its advocacy strategy, which is currently under review, Clariant aims to further strengthen these ties by paying closer attention to topics such as the bioeconomy, the transition to a more circular economy, climate change and energy transition, and sustainable chemistry.

Clariant supports the call for increased transparency regarding lobbying activities and political contributions. Through its reporting on the Carbon Disclosure Project (CDP) and the Dow Jones Sustainability Index (DJSI), Clariant discloses the issues it has discussed with policymakers and trade associations that are likely to take a position on sustainability topics such as climate change. Moreover, Clariant performs an annual review of its membership costs and publicly discloses its top membership contributions, as well as the overall budget allocated to policy memberships.

Clariant's continuous dialogue with policymakers, NGOs, and industry associations further supports evaluating the effectiveness of its public policy management approach.

GRI 415:2016 Public Policy

415-1 Political contributions

The Clariant Corporate Citizenship Management Policy and the Anti-Bribery and Anti-Corruption Policy explicitly exclude donations to political parties. Accordingly, Clariant did not render any donations to parties, politicians, or related organizations in 2020.

Sustainability Performance in the Supply Chain

Management Approach

103-1 Explanation of the material topic and its boundary

Reason for materiality

Clariant believes that true leadership in sustainability extends beyond the company's operations and considers sustainability impacts and opportunities across the entire value chain. Customers, employees, community members, the general public, and other stakeholders expect companies to understand their wider impact and foster sustainable change and growth.

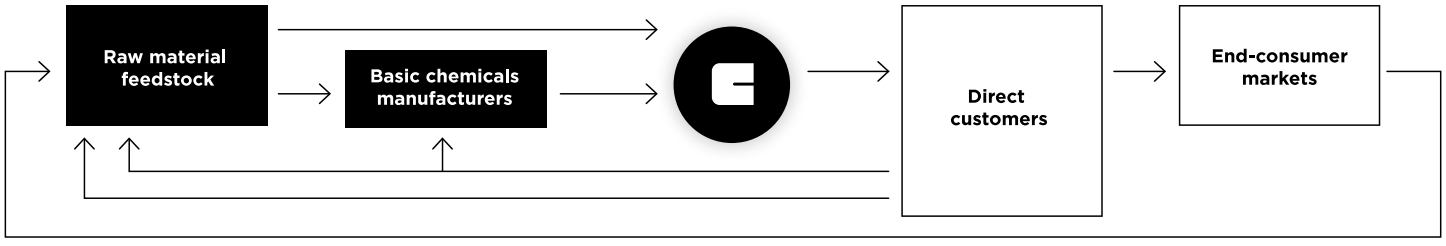
Contribution to value creation

As part of Clariant's commitment to identifying and reducing potential risks, enhancing the sustainability performance across its end-to-end supply chains, Clariant proactively engages with suppliers to monitor and improve the sustainability performance of the materials and services it sources from them.

Boundary

In order to be a true sustainability leader, Clariant goes beyond its own operations and drives its sustainability strategy across its entire spend on materials and services. Clariant's sustainability strategy includes its comprehensive and complex global supply chains, including its suppliers.

Impact in the value chain



103-2 The management approach and its components

Responsibilities and resources

Clariant Procurement has developed and rolled out its sustainability strategy across all regions and spend categories, covering approximately CHF 3.3 billion of yearly spend. Sustainability in the supply chain is coordinated and steered by the Group Procurement Service's Sustainability team, which reports directly to the Head of Procurement.

Goals and targets

Clariant derives yearly supply chain sustainability targets from its Procurement Sustainability Roadmap. In 2020, four out of eight procurement key performance indicators related to sustainability.

They are:

- Increasing spend coverage with sustainability evaluation and decreasing spend with risk suppliers, based on supplier sustainability assessments. This target is to be reached in collaboration with the different Business Units.
- Number of new supplier sustainability assessment scorecards generated
- Number of new sustainability audit reports generated
- Number of suppliers that have improved their score in the sustainability assessments

In 2019, Clariant adopted an overall target on spend coverage and risk spend, which is characterized as spend on suppliers with a »Together for Sustainability« (TfS) assessment score of less than 45. At the core of Clariant's Supply Chain Sustainability is the aim to purposefully support strategic suppliers to comply with minimum scores defined by Clariant and to continuously improve their performance. In 2020, 62 percent of reassessed suppliers improved their sustainability performance by reaching better sustainability scores in the TfS assessment performed by EcoVadis.

Further components

Sustainability forms an integral part of Clariant's procurement practices, irrespective of material, geography, or risk potential. Suppliers, outsourcing partners, and service providers are selected and managed based on a comprehensive set of criteria. These benchmarks include not only economic and product-specific performance, but also nonfinancial and sustainability considerations, such as complaint management, creditworthiness, safety standards, working conditions, and respect for human rights.

Supplier Sustainability Management Trainings

Building and continuously updating skills in supplier sustainability management and ensuring sustainability are a critical part of the state-of-the-art procurement expertise, Clariant Procurement develops and deploys a Sustainability Capability-Building Program with yearly waves of training sessions and supporting materials, such as dedicated toolkits for buyers as well as suppliers. It also includes »Lunch & Learn« sessions on a variety of topics relevant for sustainable supply chain management.

Procurement Sustainability Roadmap

Clariant annually develops a Procurement Sustainability Roadmap based on insights, learnings, and feedback gathered in previous years. The roadmap defines focus areas, strategies, and indicators and is deployed across the entire organization and spend. The procurement sustainability program is discussed and aligned with Sustainability Transformation.

Supplier Code of Conduct

The policy cornerstone of Clariant's sustainable procurement approach, the Supplier Code of Conduct, is based on the UN Global Compact and Responsible Care® principles. It was rolled out in 2014 across the entire supply base of more than 22 000 suppliers through written communication and via face-to-face meetings with top suppliers in each region. It is also incorporated into the General Terms and Conditions of Purchase included in every purchase order issued by the procurement organizations.

Clariant expects its suppliers to abide by this Supplier Code of Conduct and make every effort to keep the environmental impact and negative social effects arising from business activities at a minimum. If the Code of Conduct is not embraced by business partners, Clariant retains the right to end business relationships.

Read more: Corporate Website, Sustainable Supply Chains

Supplier Sustainability Assessments and Audits

Since 2014, Clariant has been a member of the »Together for Sustainability (TfS)« initiative. The TfS supplier sustainability assessment covers both materials and services and is based on standard state-of-the-art methodologies and an approach jointly developed by the procurement leadership and organizations of large chemical companies. It is managed through leading external global service providers specialized in sustainability: EcoVadis for online assessments; and DSQ Group, ERM, Intertek, and SGS for on-site audits.

The approach developed and implemented by TfS leverages synergies among the participants and delivers an independent, standardized, and quantitative evaluation of suppliers' sustainability performance and risk profiles. The outsourcing to third-party service providers guarantees process robustness, independence, confidentiality, and conformity with antitrust and competition law. Clariant prioritizes the assessment and audit of suppliers according to country and business risks, global category priorities, and purchase volumes.

Read more: Integrated Report, Sustainability Performance in the Supply Chain

Responsible Mica Initiative

In 2019, Clariant became a full member of the Responsible Mica Initiative, which aims to eradicate child labor and unacceptable working conditions in the Indian mica supply chain. However, with the divestment of the Business Unit Masterbatches – the one involved in the Mica supply chain – completed in July 2020, Clariant will cease to be a member of and to report on the Responsible Mica Initiative.

103-3 Evaluation of the management approach and measurement

Evaluation and outcome

Clariant's yearly Procurement Sustainability Roadmap draws from insights and feedback gathered through external evaluations (such as the DJSI SAM Company Sustainability Benchmark Report and EcoVadis Scorecard), industry benchmarks with TfS and best-in-class companies within and outside the chemical industry, and conference participation. Thus, breadth and depth of the roadmap are continuously enhanced. The KPIs described under »Goals and Targets« above are tracked monthly in the management committee meeting.

In 2019, Clariant was honored by two organizations: EcoVadis granted the company the Sustainable Procurement Leadership Award for »Best Internal Stakeholder Engagement«; and risk methods, a company assessing supplier risks, awarded Clariant with the »TOP Sustainable Supply Chain Program.« The awards recognize excellence in sustainable procurement practices and distinguish Clariant as a best-in-class example, driving internal engagement to roll out a global sustainable procurement program.

»Together for Sustainability (TfS)«

Through the »Together for Sustainability (TfS)« initiative, Clariant has online access to a large number of assessment scorecards and audit reports generated by external service providers on behalf of all TfS members. In addition to an overall score, the assessment scorecards contain an individual score for the critical categories of environment, labor and human rights, ethics, and sustainable procurement. Furthermore, and most importantly, assessment scorecards and audit reports provide detailed feedback on specific improvement areas and guidance on where and how to address the identified gaps. This comprehensive approach and outcome give Clariant the basis to engage with its suppliers and agree on ad hoc corrective action plans in order to mitigate sustainability risks and improve sustainability performance in its supply chain.

This enables Clariant to monitor, measure, and improve supplier sustainability performance, identify improvement opportunities against principles laid out in the Supplier Code of Conduct, and embed sustainability as an integral part of supplier selection and management.

GRI 204:2016 Procurement Practices

204-1 Proportion of spending on local suppliers

✔ PwC CH	2016	2017	2018	2019	2020
Percentage of the procurement budget that is used for significant locations of operation and spent on suppliers local to that operation	85.7%	87.4%	88.3%	88.0%	87.6%[1]

[1] Continuing operations only

✔ PwC CH	2016	2017	2018	2019	2020
RM Procurement by region (in CHF m)	**2 221**	**2 674**	**2 948**	**2 642**	**2 027**
Of which with local suppliers (in CHF m)	1 904	2 337	2 603	2 330	1 777
Number of suppliers[1]	5 222	6 991	6 434	6 300	6 020
Asia-Pacific (in CHF m)	**510**	**627**	**672**	**597**	**426**
Of which with local suppliers (in CHF m)	479	591	641	564	405
Number of suppliers[1]	1 754	2 800	2 527	2 422	2 296
Europe (in CHF m)	**1 088**	**1 237**	**1 340**	**1 232**	**1 017**
Of which with local suppliers (in CHF m)	959	1 122	1 228	1 117	909
Number of suppliers[1]	1 174	1 690	1 514	1 416	1 374
Latin America (in CHF m)	**276**	**307**	**320**	**262**	**207**
Of which with local suppliers (in CHF m)	198	209	213	176	140
Number of suppliers[1]	802	1 092	1 085	1 088	1 065
Middle East & Africa (in CHF m)	**91**	**109**	**106**	**99**	**67**
Of which with local suppliers (in CHF m)	47	56	57	55	37
Number of suppliers[1]	247	407	378	395	358
North America (in CHF m)	**255**	**395**	**510**	**453**	**311**
Of which with local suppliers (in CHF m)	221	359	464	419	285
Number of suppliers[1]	445	1 002	930	979	927

[1] Duplicate counts across regions were largely eliminated but cannot be ruled out entirely.

Clariant's procurement preferentially sources goods and services from within the region in which its respective operations and manufacturing plants are located, if qualitatively compatible, technically feasible, and economically viable. This approach supports the economic development of the regions in which Clariant operates. This is particularly relevant for and encouraged in key emerging markets such as Brazil, China, and India. Clariant defines local suppliers as suppliers that are based in the same country or region where the materials and/or services are used.

GRI 308:2016 Supplier Environmental Assessment

308-1 New suppliers that were screened using environmental criteria

✔ PwC CH	2016	2017	2018	2019	**2020**
Percentage of suppliers assessed via EcoVadis	63%	65%	74%	78%	84%

Clariant selects and manages its suppliers, outsourcing partners, and service providers based on a comprehensive set of criteria. In addition to economic and product-specific performance aspects, the selection of suppliers is also explicitly based on nonfinancial and sustainability considerations. Clariant's sustainability standards are incorporated into its procurement strategies and activities, policies, and general guidelines (such as the Code of Conduct for Suppliers).

In 2020, TfS members initiated 1 148 new supplier assessments and 3 527 suppliers were reassessed, of which 57 % improved their score. A further 640 existing assessments were shared with TfS. All of these form the TfS pool of 10 069 actively managed supplier assessments.

By mapping supplier TfS assessment scorecards against Clariant's supply base, Clariant reached a share of 84% (2019: 78%) of its yearly CHF 2 billion (2019: 2.6 billion) direct spend that is covered by TfS assessments.

308-2 Negative environmental impacts in the supply chain and actions taken

✔ PwC CH	2016	2017	2018	2019	**2020**
Number of suppliers assessed for environmental impacts	6 383	8 692	10 566	9 434	4 205
Number of suppliers identified as having actual and potential significant negative environmental impacts	785	666	955	784	472

These numbers are based on the mapping of the suppliers from the EcoVadis platform to Clariant's own spend database.

✔ PwC CH	2017	2018	2019	**2020**
Percentage of suppliers identified as having actual and potential significant negative environmental impacts and with whom improvements were agreed upon as a result of assessment	17%	20%	18%	14%

In 2017, Clariant began a program of Corrective Action Plans (CAPs) in order to reduce supplier sustainability risks. In 2020, 14% of the 472 suppliers identified as having actual and potential significant negative environmental impacts have been taken through the CAP program.

GRI 414:2016 Supplier Social Assessment

414-1 New suppliers that were screened using social criteria

For information regarding 414-1, please see disclosure 308-1: New suppliers that were screened using environmental criteria.

414-2 Negative social impacts in the supply chain and actions taken

✔ PwC CH	2016	2017	2018	2019	**2020**
Number of suppliers assessed for social impacts	6 383	8 692	10 566	9 434	4 205
Number of suppliers identified as having actual and potential significant negative social impacts	737	598	1 205	1 060	342

These numbers are based on the mapping of the suppliers from the EcoVadis platform to Clariant's own spend database.

✔ PwC CH	2017	2018	2019	**2020**
Percentage of suppliers identified as having actual and potential significant negative social impacts and with whom improvements were agreed upon as a result of assessment	19%	26%	16%	14%

In 2017, Clariant began a program of Corrective Action Plans (CAPs) in order to reduce supplier sustainability risks. In 2020, 14% of the 342 suppliers identified as having actual and potential significant negative social impacts have been taken through the CAP program.

For more information regarding 414-2, please see disclosure 308-2: Negative environmental impacts in the supply chain and actions taken.

GENERAL DISCLOSURES

Organizational Profile

102-1 Name of the organization

Clariant AG

102-2 Activities, brands, products, and services

In addition to the information described in the Financial Report and on the Corporate Website, Clariant also deals with goods that are subject to different trade control regimes, such as chemical weapons conventions or the dual-use goods regulation. All of the respective national and international trade control provisions, as well as embargo regulations, are monitored by a global trade control network within the Clariant organization. With the help of IT systems, along with organizational controls, all deliveries are reviewed to ensure trade compliance. Thus, for ex-

ample, controlled goods can only be delivered if the necessary permits are obtained from the relevant authorities in addition to end-user statements from the customer. Clariant ensures that all trade control requirements are fulfilled.

102-3 Location of headquarters

Rothausstrasse 61
4132 Muttenz
Switzerland

102-4 Location of operations

Read more: Financial Report, Important subsidiaries

Read more: Financial Report, Segment information

102-5 Ownership and legal form

Stock company listed at SIX Swiss Exchange

102-6 Markets served

Read more: Integrated Report, Multicapital Review, Financial Capital

Read more: Integrated Report, Value Creation in the Four Business Areas

102-7 Scale of the organization

Read more: Integrated Report, Summary on Performance, People, Planet

Read more: Financial Report, Important subsidiaries

Read more: Financial Report, Consolidated balance sheets

102-8 Information on employees and other workers

✔ PwC CH	2019		2020	
	permanent	temporary	**permanent**	**temporary**
Employees by employment contract and gender (in FTEs)	**16 650**	**572**	**12 763**	**472**
male	13 084	413	9 846	368
female	3 566	160	2 917	104

	2019		2020	
	full-time	part-time	**full-time**	**part-time**
Employees by employment type (in FTEs)	**16 786**	**437**	**12 887**	**348**
male	13 396	100	10 143	71
female	3 390	337	2 744	277

Clariant does not have knowledge of any substantial portion of its work being performed by workers who are not employees. Furthermore, there are no significant seasonal variations in Clariant's employment numbers.

102-9 Supply chain

Read more: Integrated Report, Multicapital Review, Sustainability performance in the supply chain

Read more: GRI Management Approach, Sustainability performance in the supply chain

102-10 Significant changes to the organization and its supply chain

Read more: Financial Report, Important subsidiaries

Read more: Financial Report, Discontinued operations and assets held for sale

Read more: Financial Report, Disposals

Read more: Financial Report, Changes in share capital and treasury shares and changes in noncontrolling interests

Read more: Financial Report, Events Subsequent to the Balance Sheet Date

102-11: Precautionary principle or approach

Clariant adopted the precautionary principle defined in 1992 at the United Nations Conference on Environment and Development in Rio de Janeiro. According to the precautionary principle, remedial actions may only be postponed if no serious or lasting damages to the environment are looming. More detail can be found on the following website: www.precautionaryprinciple.eu.

Clariant has expanded the environmental considerations of the precautionary principle with social aspects. Further, Clariant continuously invests in safe products and efficient as well as environmentally compatible processes. Clariant also deploys measures to completely live up to its responsibilities toward employees, customers, shareholders, and other stakeholders.

102-12 External initiatives

Clariant supports a large number of externally developed initiatives. For example:

Clariant expressly supports the United Nations Global Compact and the United Nations Universal Declaration of Human Rights (UDHR), also known as the United Nations Human Rights Charter. The charter comprises general human rights principles that serve as a joint ideal for all people and nations to ensure that each individual and all bodies of the company constantly strive to promote respect for corresponding rights and freedoms through education and training. National and international measures must thereby guarantee the formal as well as the actual recognition of, and compliance with, human rights. This applies to Clariant too.

Clariant has signed the »Responsible Care® Global Charter« developed by the International Council of Chemical Associations (ICCA), which monitors compliance with this charter. The charter is a self-commitment by the chemical industry worldwide to pursue continual improvements in the fields of environmental protection, product responsibility, work safety, transportation safety, and dialogue.

Clariant is committed to the Global Product Strategy (GPS), which was developed in 2006 by the International Council of Chemical Associations (ICCA) as part of its commitment to the United Nations Strategic Approach to International Chemicals Management (SAICM). This approach promotes the safe use of chemical products through the entire life cycle and enhances product stewardship throughout the value chain.

102-13 Membership in associations

Clariant is a member of numerous interest groups and trade associations at international (International Council of Chemical Associations [ICCA]), regional (Cefic), and national levels (business federations or national chemical industry associations, such as ABIQUIM in Brazil, CPCIF in China, Verband der Chemischen Industrie [VCI] in Germany, and the American Chemistry Council [ACC] in the USA).

Clariant is also active in sectoral associations at both a regional and national level, as in the bioeconomy sector (Leaders of Sustainable Biofuels, ePure, EuropaBio, Bio-Based Industries Consortium, BioDeutschland, etc.)

Clariant is proud to be a member and supporter of scientific and research organizations such as SUSCHEM, the European Technology Platform for Sustainable Chemistry, confirming its strong commitment to develop the next generation of sustainable chemistry solutions.

In 2020, Clariant's top three contributions to policy memberships are:

1. German Association of the Chemical Industry (Verband der Chemischen Industrie e. V. [VCI])
2. Chamber of Commerce Basel (Handelskammer beider Basel)
3. Scienceindustries, the Swiss business association for the chemical, pharmaceutical, and biotech industries.

Strategy

102-14 Statement from senior decision-maker

Read more: Integrated Report, Interview with Hariolf Kottman

Read more: Integrated Report, Letter to shareholders

102-15 Key impacts, risks, and opportunities

Read more: Financial Report, Enterprise Risk Management Identification, Assessment, and Management

Ethics and Integrity

102-16 Values, principles, standards, and norms of behavior

As a leading specialty chemicals company, Clariant not only ensures adherence to legal regulations, but also commits itself to important global initiatives. All of Clariant's actions comply with

the principles laid down in the Responsible Care® Global Charter, the Global Product Strategy, the United Nations Global Compact, and the company's internal Code of Conduct and Code of Conduct for Suppliers.

All employees receive the Code of Conduct when they are hired and must agree to it when signing their contract of employment. Relevant e-learning modules are mandatory for all employees. Participation in these training courses, which cover different topics or themes of the Code of Conduct, is registered, and employees not participating receive a warning. The Code is available in all relevant national languages.

Read more: Corporate Website, Codes of Conduct

Read more: Corporate Website, Sustainable Supply Chains

102-17 Mechanisms for advice and concerns about ethics

With regard to seeking advice, compliance officers at both regional and local levels as well as at Group Headquarters are available to provide support on issues concerning ethically correct and legally compliant conduct of employees or business processes. In addition, employees as well as suppliers and other stakeholders have the opportunity to raise concerns or questions—anonymously as well—about ethical business conduct on the »Clariant Integrity Line« (an online portal introduced in 2014). The responsible compliance officer of the corresponding country then answers or forwards the concerns or questions to the competent colleague in the Compliance or Human Resources department or ESHA.

Complaints pertaining to violations of the Clariant Code of Conduct can be equally made via line managers, through Group Compliance (i.e., reported to the local or regional HR Department or compliance office, or directly to the Group compliance officer), or via the »Clariant Integrity Line.«

Governance

102-18 Governance structure

Read more: Corporate Governance Report, Principles of Corporate Governance

102-20 Executive-level responsibility for economic, environmental, and social topics

Clariant's Executive Committee provides the guidelines and the corresponding control for sustainable management. The Head of Environmental Safety & Health Affairs, Head of Sustainability Strategy & Advocacy, as well as the Head of Product Stewardship report directly to a Member of the Executive Committee on sustainability matters and are in charge of implementing the sustainability strategy. The Executive Committee reports to the Board of Directors.

Read more: Corporate Governance Report, Information and control instruments vis-à-vis the Executive Committee

102-21 Consulting stakeholders on economic, environmental, and social topics

Clariant revised its materiality matrix in 2017 in a sophisticated, consultative process between stakeholders and Clariant on economic, environmental, and social topics, among others. Key stakeholders voiced their opinions regarding the topics on which Clariant should focus, and the results of the survey were analyzed and broken down into region- and function-specific perspectives. This allowed Business Unit and Regional Management Committees to follow up with their respective stakeholders.

Through the »Clariant Sustainability Dialogue,« Clariant can further engage with important stakeholders from customer industries, politics, NGOs, and the media in order to foster an open dialogue and future cooperation. Additionally, Clariant maintains a constant dialogue with NGOs, and sales representatives regularly meet with customers to discuss sustainability topics.

Read more: Integrated Report, Internal and External Stakeholder Engagement

Read more: Integrated Report, Materiality Assessment

102-38 Annual total compensation ratio

102-39 Percentage increase in annual total compensation ratio

Clariant's compensation philosophy is aimed at promoting and reinforcing the quality and commitment of employees. Clariant is generally committed to paying its employees fair and appropriate compensation in the form of wages and salaries, social components, and other perks. This compensation should meet minimum statutory standards and, in principle, exceeds them in each country in which Clariant is active.

The spread of salaries between Clariant employees varies from one country to another. This heavily depends on the relevant local managerial and employment structure and is frequently culturally influenced. For this reason, local salary structures cannot be used to address compensation issues. On a global level, the ratio between the median annual base salary and the highest base salary is 1:12. In terms of the total compensation, including variable salary components, the spread is 1:19. The ratio tends to be higher in growth regions than, for example, in Europe. Part-time employees have been excluded from the calculation above.

Salary adjustments are negotiated in accordance with a fixed and unambiguous system and implemented through mutual agreement between the line manager and the Human Resources department. As a basic principle, a consistent »salary philosophy« ensures that adjustments are made in the context of the local markets and the individual performance.

Read more: Compensation Report

Stakeholder Engagement

102-40 List of stakeholder groups

Read more: Integrated Report, Internal and External Stakeholder Engagement

102-41 Collective bargaining agreements

✔ PwC CH	2017	2018	2019	2020
Percentage of total employees covered by collective bargaining agreements	48%	47%	47%	53%

Clariant pays wages and salaries that are determined by relevant local competitive markets rather than by legally defined minimum wages. As of the end of December 2020, 53% of employees were covered by collective bargaining agreements with employee representatives. Managerial positions are generally not included in such agreements.

102-42 Identifying and selecting stakeholders

Read more: Integrated Report, Internal and External Stakeholder Engagement

102-43 Approach to stakeholder engagement

Read more: Integrated Report, Internal and External Stakeholder Engagement

102-44 Key topics and concerns raised

Read more: Integrated Report, Internal and External Stakeholder Engagement

Reporting Practice

102-45 Entities included in the consolidated financial statements

Read more: Financial Report, Important subsidiaries

102-46 Defining report content and topic boundaries

In order to define report content and topic Boundaries, Clariant applied all four Reporting Principles, namely Stakeholder Inclusiveness, Sustainability Context, Materiality, and Completeness.

Clariant continually evaluates the materiality of economic, environmental, and social topics. A comprehensive materiality assessment conducted in 2017 identified the issues that were most relevant to Clariant and its stakeholders, enabling the prioritization of initiatives. Clariant uses regular stakeholder interactions and market monitoring to make necessary adjustments to its materiality matrix. In 2020, after discussions with stakeholders and management indicated that the topics of Climate Change and Digitalization were increasing in importance, the materiality matrix was updated. Regarding climate change, Clariant foresees increasing pressure from regulators and a heightened focus among investors, and is thus allocating increased resources to the topic and ramping up efforts to reduce CO_2 emissions. On the topic of Digitalization, the 2020 lockdowns made virtual collaboration with stakeholders a necessity – a change that will most likely persist beyond the pandemic. Clariant is also leveraging digital opportunities to develop innovative business models, improve customer satisfaction, and operate more efficiently.

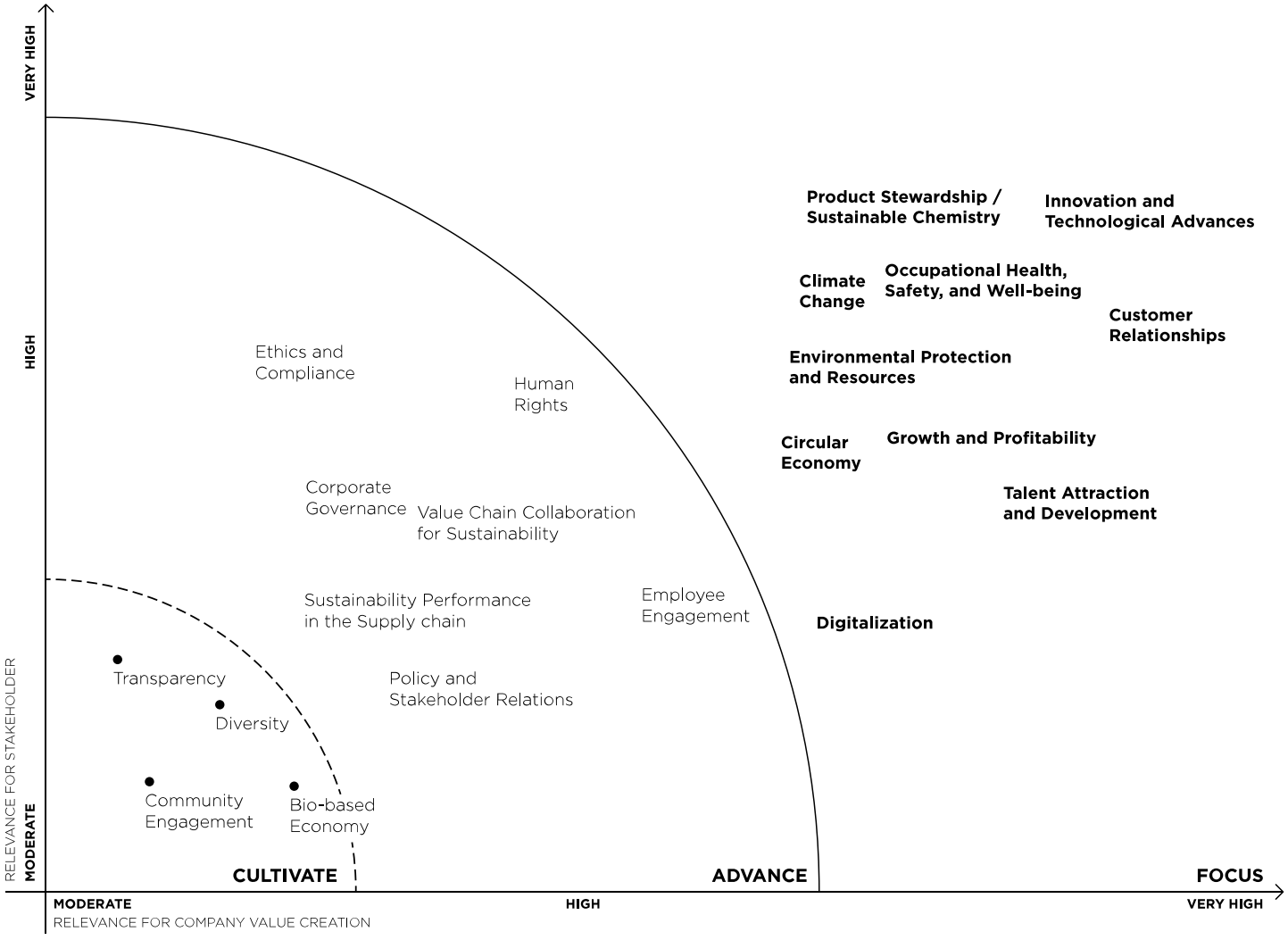
As part of the 2017 assessment, external and internal stakeholders were asked to share which topics they deemed most relevant to future value creation. Overall, 131 external stakeholders, 69 employees, and 36 managers gave feedback.

Clariant reports on topics that are considered to be of high and very high relevance in the Integrated Report and the GRI Report. The Boundaries are outlined in the respective topic's Management Approach in the GRI Report

Read more: Integrated Report, Materiality Assessment

102-47 List of material topics

Materiality Matrix



102-48 Restatements of information

Any restatement of previously reported data is explained in a footnote under the respective disclosure.

102-49 Changes in reporting

There are no significant changes from pervious reporting periods in the list of material topics and topic Boundaries.

102-50 Reporting period

2020

102-51 Date of most recent report

The last GRI Report was published in March 2020 on Clariant's website.

Read more: GRI Report 2019

102-52 Reporting cycle

Annual

102-53 Contact point for questions regarding the report

Questions about this report should be addressed to:

Sustainability Affairs – Group Innovation & Sustainability
Alessandro Canalis, Tel. +41 61 469 65 10
sustainability@clariant.com

Investor Relations
Andreas Schwarzwaelder, Tel. +41 61 469 62 92

102-54 Claims of reporting in accordance with the Standards

This report has been prepared in accordance with the GRI Standards: Core option.

102-55 GRI content index

Read more: GRI Report 2020: Content Index

102-56 External assurance

Read more: PwC Assurance Report

GRI Content Index

UNIVERSAL STANDARDS

GRI 101:2016 Foundation
GRI 102:2016 General Disclosures

Disclosure		Links	External Assurance	UNGC
	Organizational profile			
102-1	Name of the organization	GRI Report: **Name of the organization**		
102-2	Activities, brands, products, and services	GRI Report: **Activities, brands, products, and services** **Financial Report: Accounting policies** **Corporate Website: Product & Solution Highlights** **Corporate Website: EcoTain® Products** **Integrated Report**		
102-3	Location of headquarters	GRI Report: **Location of headquarters**		
102-4	Location of operations	GRI Report: **Location of operations** **Financial Report: Important subsidiaries** **Financial Report: Segment information**		
102-5	Ownership and legal form	GRI Report: **Ownership and legal form**		
102-6	Markets served	GRI Report: **Markets served** **Integrated Report: Financial Capital** **Integrated Report: Value Creation in the Four Business Areas**		
102-7	Scale of the organization	GRI Report: **Scale of the organization** **Integrated Report: Financial Capital** **Integrated Report: Human Capital** **Integrated Report: Manufactured Capital** **Financial Report: Important subsidiaries** **Financial Report: Consolidated balance sheets**	✔ **PwC CH**	
102-8	Information on employees and other workers	GRI Report: **Information on employees and other workers**	✔ **PwC CH**	UNGC
102-9	Supply chain	GRI Report: **Supply chain** **Integrated Report: Sustainability Performance in the Supply Chain** **Integrated Report: Raw material procurement**	✔ **PwC CH**	

Disclosure		Links	External Assurance	UNGC
102-10	Significant changes to the organization and its supply chain	GRI Report: **Significant changes to the organization and its supply chain** **Financial Report: Important subsidiaries** **Financial Report: Acquisitions** **Financial Report: Disposals** **Financial Report: Changes in share capital and treasury shares and changes in noncontrolling interests** **Financial Report: Events Subsequent to the Balance Sheet Date**		
102-11	Precautionary Principle or approach	GRI Report: **Precautionary Principle or approach**		
102-12	External initiatives	GRI Report: **External initiatives**		
102-13	Membership of associations	GRI Report: **Membership of associations**		
	Strategy			
102-14	Statement from senior decision-maker	GRI Report: **Statement from senior decision-maker** **Integrated Report: Interview with Hariolf Kottmann** **Integrated Report: Letter to shareholders**		
102-15	Key impacts, risks, and opportunities	GRI Report: **Key impacts, risks, and opportunities** **Financial Report: Enterprise Risk Management Identification, Assessment and Management** **Integrated Report: Overview of Enterprise Risk Management**		
	Ethics and integrity			
102-16	Values, principles, standards, and norms of behavior	GRI Report: **Values, principles, standards, and norms of behavior** **Corporate Website: Codes of Conduct** **Corporate Website: Sustainable Supply Chains**		UNGC
102-17	Mechanisms for advice and concerns about ethics	GRI Report: **Mechanisms for advice and concerns about ethics**		UNGC
	Governance			
102-18	Governance structure	GRI Report: **Governance structure** **Corporate Governance: Principles of Corporate Governance** **Corporate Website: Sustainability Governance**		
102-20	Executive-level responsibility for economic, environmental, and social topics	GRI Report: **Executive-level responsibility for economic, environmental, and social topics** **Corporate Governance Report: Information and control instruments vis-à-vis the Executive Committee**		
102-21	Consulting stakeholders on economic, environmental, and social topics	GRI Report: **Consulting stakeholders on economic, environmental, and social topics** **Integrated Report: Internal and External Stakeholder Engagement** **Integrated Report: Materiality Assessment**		
102-38	Annual total compensation ratio	GRI Report: **Annual total compensation ratio** **Compensation Report**	✔ PwC CH	
102-39	Percentage increase in annual total compensation ratio	GRI Report: **Percentage increase in annual total compensation ratio** **Compensation Report**	✔ PwC CH	
	Stakeholder Engagement			

Disclosure		Links	External Assurance	UNGC
102-40	List of stakeholder groups	GRI Report: **List of stakeholder groups** **Integrated Report: Materiality Assessment** **Integrated Report: Internal and External Stakeholder Engagement**		
102-41	Collective bargaining agreements	GRI Report: **Collective bargaining agreements**	✔ **PwC CH**	UNGC
102-42	Identifying and selecting stakeholders	GRI Report: **Identifying and selecting stakeholders** **Integrated Report: Materiality Assessment** **Integrated Report: Internal and External Stakeholder Engagement**		
102-43	Approach to stakeholder engagement	GRI Report: **Approach to stakeholder engagement** **Integrated Report: Materiality Assessment** **Integrated Report: Internal and External Stakeholder Engagement**		
102-44	Key topics and concerns raised	GRI Report: **Key topics and concerns raised** **Integrated Report: Materiality Assessment** **Integrated Report: Internal and External Stakeholder Engagement**		
	Reporting practice			
102-45	Entities included in the consolidated financial statements	**Entities included in the consolidated financial statements** **Financial Report: Important subsidiaries**		
102-46	Defining report content and topic Boundaries	GRI Report: **Defining report content and topic Boundaries** **Integrated Report: Materiality Assessment**		
102-47	List of material topics	GRI Report: **List of material topics** **Integrated Report: Materiality Assessment**		
102-48	Restatements of information	GRI Report: **Restatements of information**		
102-49	Changes in reporting	GRI Report: **Changes in reporting**		
102-50	Reporting period	GRI Report: **Reporting period**		
102-51	Date of most recent report	GRI Report: **Date of most recent report** **GRI Report 2019**		
102-52	Reporting cycle	GRI Report: **Reporting cycle**		
102-53	Contact point for questions regarding the report	GRI Report: **Contact point for questions regarding the report**		
102-54	Claims of reporting in accordance with the Standards	GRI Report: **Claims of reporting in accordance with the Standards**		
102-55	GRI content index	GRI Report: **GRI content index**		
102-56	External assurance	GRI Report: **External assurance** **PwC Assurance Report**		

TOPIC-SPECIFIC STANDARDS

GRI 200 Economic Standards

Disclosure		Links	External Assurance	UNGC
GRI 201: 2016	**Economic Performance**			
GRI 103-1/2/ 3:2016	Management approach	GRI Report: **Management approach: Growth and Profitability** **Corporate Governance Report** **Integrated Report: Financial Capital** **Financial Report**		
201-1	Direct economic value generated and distributed	GRI Report: **Direct economic value generated and distributed** **Financial Report**		UNGC
201-2	Financial implications and other risks and opportunities due to climate change	GRI Report: **Financial implications and other risks and opportunities due to climate change**		
201-3	Defined benefit plan obligations and other retirement plans	GRI Report: **Defined benefit plan obligations and other retirement plans** **Financial Report: Retirement benefit obligations**		
GRI 202: 2016	**Market Presence**			
GRI 103-1/2/ 3:2016	Management approach	GRI Report: **Management approach: Employee Engagement** **Integrated Report: Employee Engagement**		
202-1	Ratios of standard entry-level wage by gender compared to local minimum wage	GRI Report: **Ratios of standard entry-level wage by gender compared to local minimum wage**		UNGC
202-2	Proportion of senior management hired from the local community	GRI Report: **Proportion of senior management hired from the local community**	✔ PwC CH	UNGC
GRI 204: 2016	**Procurement Practices**			
GRI 103-1/2/ 3:2016	Management approach	GRI Report: **Management approach: Sustainability Performance in the Supply Chain** **Integrated Report: Sustainability Performance in the Supply Chain** **Corporate Website: Sustainable Supply Chains**		
204-1	Proportion of spending on local suppliers	GRI Report: **Proportion of spending on local suppliers**	✔ PwC CH	
GRI 205: 2016	**Anti-corruption**			
GRI 103-1/2/ 3:2016	Management approach	GRI Report: **Management approach: Ethics and Compliance** **Integrated Report: Ethics and Compliance**		
205-1	Operations assessed for risks related to corruption	GRI Report: **Operations assessed for risks related to corruption**		UNGC
205-2	Communication and training about anti-corruption policies and procedures	GRI Report: **Communication and training about anti-corruption policies and procedures**		UNGC

Disclosure		Links	External Assurance	UNGC
205-3	Confirmed incidents of corruption and actions taken	GRI Report: **Confirmed incidents of corruption and actions taken**		UNGC
GRI 206: 2016	**Anti-competitive Behavior**			
GRI 103-1/2/ 3:2016	Management approach	GRI Report: **Management approach: Ethics and Compliance** **Integrated Report: Ethics and Compliance**		
206-1	Legal actions for anti-competitive behavior, anti-trust, and monopoly practices	GRI Report: **Legal actions for anti-competitive behavior and antitrust and monopolistic practices**	✔ PwC CH	
	Innovation and Technological Advances			
GRI 103-1/2/ 3:2016	Management approach	GRI Report: **Management approach: Innovation and Technological Advances** **Integrated Report: Innovation and Technological Advances** **Integrated Report: Core Processes for Value Creation**		
	Digitalization			
GRI 103-1/2/ 3:2016	Management approach	GRI Report: **Management approach: Digitalization** **Integrated Report: Digitalization**		

GRI 300 Environmental Standards

Disclosure		Links	External Assurance	UNGC
GRI 301: 2016	**Materials**			
GRI 103-1/2/ 3:2016	Management approach	GRI Report: **Management approach: Circular Economy** **Integrated Report: Circular Economy** **Integrated Report: Product Stewardship/ Sustainable Chemistry** **Integrated Report: Progress toward environmental targets 2025**		
301-1	Materials used by weight or volume	GRI Report: **Materials used by weight or volume**	✔ PwC CH	UNGC
301-2	Recycled input materials used	GRI Report: **Recycled input materials used**		UNGC
301-3	Reclaimed products and their packaging materials	GRI Report: **Reclaimed products and their packaging materials**		UNGC
GRI 302: 2016	**Energy**			
GRI 103-1/2/ 3:2016	Management approach	GRI Report: **Management approach: Environmental Protection and Resources** **Integrated Report: Environmental Protection and Resources** **Integrated Report: Progress toward environmental targets 2025**		
302-1	Energy consumption within the organization	GRI Report: **Energy consumption within the organization**	✔ PwC CH	UNGC

Disclosure		Links	External Assurance	UNGC
302-2	Energy consumption outside of the organization	GRI Report: **Energy consumption outside of the organization** **GRI 305-3: Other indirect (Scope 3) GHG emissions**	✔ PwC CH	UNGC
302-3	Energy intensity	GRI Report: **Energy intensity**	✔ PwC CH	UNGC
302-5	Reductions in energy requirements of products and services	GRI Report: **Reductions in energy requirements of products and services** **Corporate Website: Portfolio Value Program**		UNGC
GRI 303: 2018	**Water**			
GRI 103-1/2/3:2016	Management approach	GRI Report: **Management approach: Environmental Protection and Resources** **Integrated Report: Environmental Protection and Resources** **Integrated Report: Progress toward environmental targets 2025**		
303-1	Interactions with water as a shared resource	GRI Report: **Interactions with water as a shared resource**	✔ PwC CH	UNGC
303-2	Management of water discharge-related impacts	GRI Report: **Management of water discharge-related impacts**		UNGC
303-3	Water withdrawal	GRI Report: **Water withdrawal**	✔ PwC CH	UNGC
303-4	Water discharge	GRI Report: **Water discharge**	✔ PwC CH	UNGC
303-5	Water consumption	GRI Report: **Water consumption**	✔ PwC CH	UNGC
GRI 304: 2016	**Biodiversity**			
GRI 103-1/2/3:2016	Management approach	GRI Report: **Management approach: Environmental Protection and Resources** **Integrated Report: Environmental Protection and Resources**		
304-1	Operational sites owned, leased, managed in, or adjacent to protected areas and areas of high biodiversity value outside protected areas	GRI Report: **GRI Report: Operational sites owned, leased, managed in, or adjacent to protected areas and areas of high biodiversity value outside protected areas**		UNGC
304-2	Significant impacts of activities, products, and services on biodiversity	GRI Report: **Significant impacts of activities, products, and services on biodiversity**		UNGC
304-3	Habitats protected or restored	GRI Report: **Habitats protected or restored**		UNGC
304-4	IUCN Red List species and national conservation list species with habitats in areas affected by operations	GRI Report: **IUCN Red List species and national conservation list species with habitats in areas affected by operations**		UNGC
GRI 305: 2016	**Emissions**			
GRI 103-1/2/3:2016	Management approach	GRI Report: **Management approach: Climate Change** **Integrated Report: Climate Change** **Integrated Report: Progress toward environmental targets 2025** **Integrated Report: Core Processes for Value Creation**		
305-1	Scope 1: Direct energy GHG emissions	GRI Report: **Scope 1: Direct energy GHG emissions**	✔ PwC CH	UNGC
305-2	Scope 2: Indirect energy GHG emissions	GRI Report: **Scope 2: Indirect energy GHG emissions**	✔ PwC CH	UNGC

Disclosure		Links	External Assurance	UNGC
305-3	Other indirect (Scope 3) GHG emissions	GRI Report: **Other indirect (Scope 3) GHG emissions**	✔ PwC CH	UNGC
305-4	GHG emission intensity	GRI Report: **GHG emission intensity**	✔ PwC CH	UNGC
305-5	Reduction of GHG emissions	GRI Report: **Reduction of GHG emissions**		UNGC
305-6	Emissions of ozone-depleting substances (ODS)	GRI Report: **Emissions of ozone-depleting substances (ODS)**		UNGC
305-7	Nitrogen oxides (NO_X), sulfur oxides (SO_X), and other significant air emissions	GRI Report: **Nitrogen oxides (NO_X), sulfur oxides (SO_X), and other significant air emissions**	✔ PwC CH	UNGC
GRI 306: 2016	**Effluents and Waste**			
GRI 103-1/2/ 3:2016	Management approach	GRI Report: **Management approach: Environmental Protection and Resources** **Integrated Report: Environmental Protection and Resources** **Integrated Report: Progress toward environmental targets 2025**		
306-1	Water discharge by quality and destination	GRI Report: **Water discharge by quality and destination**	✔ PwC CH	UNGC
306-2	Waste by type and disposal method	GRI Report: **Waste by type and disposal method**	✔ PwC CH	UNGC
306-3	Significant spills	GRI Report: **Significant spills**	✔ PwC CH	UNGC
306-4	Transport of hazardous waste	GRI Report: **Transport of hazardous waste**		UNGC
GRI 307: 2016	**Environmental Compliance**			
GRI 103-1/2/ 3:2016	Management approach	GRI Report: **Management approach: Environmental Protection and Resources** **Integrated Report: Environmental Protection and Resources**		
307-1	Non-compliance with environmental laws and regulations	GRI Report: **Noncompliance with environmental laws and regulations**		UNGC
GRI 308: 2016	**Supplier Environmental Assessment**			
GRI 103-1/2/ 3:2016	Management approach	GRI Report: **Management approach: Sustainability Performance in the Supply Chain** **Integrated Report: Sustainability Performance in the Supply Chain** **Corporate Website: Sustainable Supply Chains**		
308-1	New suppliers that were screened using environmental criteria	GRI Report: **New suppliers that were screened using environmental criteria**	✔ PwC CH	UNGC
308-2	Negative environmental impacts in the supply chain and actions taken	GRI Report: **Negative environmental impacts in the supply chain and actions taken**	✔ PwC CH	UNGC

GRI 400 Social Standards

Disclosure		Links	External Assurance	UNGC
GRI 401: 2016	**Employment**			
GRI 103-1/2/ 3:2016	Management approach	GRI Report: **Management approach: Employee Engagement** **Integrated Report: Employee Engagement**		
401-1	New employee hires and employee turnover	GRI Report: **New employee hires and employee turnover**	✔ PwC CH	UNGC
401-2	Benefits provided to full-time employees that are not provided to temporary or part-time employees	GRI Report: **Benefits provided to full-time employees that are not provided to temporary or part-time employees**		
401-3	Parental leave	GRI Report: **Parental leave**		UNGC
GRI 402: 2016	**Labor/ Management Relations**			
GRI 103-1/2/ 3:2016	Management approach	GRI Report: **Management approach: Employee Engagement** **Integrated Report: Employee Engagement**		
402-1	Minimum notice periods regarding operational changes	GRI Report: **Minimum notice periods regarding operational changes**		UNGC
GRI 403: 2018	**Occupational health and safety management system**			
GRI 103-1/2/ 3:2016	Management approach	GRI Report: **Management approach: Occupational Health, Safety, and Well-being** **Integrated Report: Occupational Health, Safety, and Well-being**		
403-1	Occupational health and safety management system	GRI Report: **Occupational health and safety management system**		
403-2	Hazard identification, risk assessment, and incident investigation	GRI Report: **Hazard identification, risk assessment, and incident investigation**		
403-3	Occupational health services	GRI Report: **Occupational health services**		
403-4	Worker participation, consultation, and communication on occupational health and safety	GRI Report: **Worker participation, consultation, and communication on occupational health and safety**		
403-5	Worker training on occupational health and safety	GRI Report: **Worker training on occupational health and safety**		
403-6	Promotion of worker health	GRI Report: **Promotion of worker health**		
403-7	Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	GRI Report: **Management Approach: Occupational Health, Safety, and Well-being**		
403-8	Workers covered by an occupational health and safety management system	GRI Report: **Workers covered by an occupational health and safety management system**	✔ PwC CH	
403-9	Work-related injuries	GRI Report: **Work-related injuries**	✔ PwC CH	
403-10	Work-related illnesses	GRI Report: **Work-related illnesses**	✔ PwC CH	
GRI 404: 2016	**Training and Education**			

Disclosure		Links	External Assurance	UNGC
GRI 103-1/2/ 3:2016	Management approach	GRI Report: **Management approach: Talent Attraction and Development** **Integrated Report: Talent Attraction and Development**		
404-1	Average hours of training per year per employee	GRI Report: **Average hours of training per year per employee**	✔ PwC CH	UNGC
404-2	Programs for upgrading employee skills and transition assistance programs	GRI Report: **Programs for upgrading employee skills and transition assistance programs**		
404-3	Percentage of employees receiving regular performance and career development reviews	GRI Report: **Percentage of employees receiving regular performance and career development reviews**	✔ PwC CH	UNGC
GRI 405: 2016	**Diversity and Equal Opportunity**			
GRI 103-1/2/ 3:2016	Management approach	GRI Report: **Management approach: Employee Engagement** **Integrated Report: Employee Engagement**		
405-1	Diversity of governance bodies and employees	GRI Report: **Diversity of governance bodies and employees**	✔ PwC CH	UNGC
405-2	Ratio of basic salary and remuneration of women to men	GRI Report: **Ratio of basic salary and remuneration of women to men**	✔ PwC CH	UNGC
GRI 406: 2016	**Nondiscrimination**			
GRI 103-1/2/ 3:2016	Management approach	GRI Report: **Management approach: Human Rights** **Integrated Report: Human Rights**		
406-1	Incidents of discrimination and corrective actions taken	GRI Report: **Incidents of discrimination and corrective actions taken**	✔ PwC CH	UNGC
GRI 407: 2016	**Freedom of Association and Collective Bargaining**			
GRI 103-1/2/ 3:2016	Management approach	GRI Report: **Management approach: Human Rights** **Integrated Report: Human Rights**		
407-1	Operations and suppliers in which the right to freedom of association and collective bargaining may be at risk	GRI Report: **Operations and suppliers with which the right to freedom of association and collective bargaining may be at risk**		UNGC
GRI 408: 2016	**Child Labor**			
GRI 103-1/2/ 3:2016	Management approach	GRI Report: **Management approach: Human Rights** **Integrated Report: Human Rights**		
408-1	Operations and suppliers at significant risk for incidents of child labor	GRI Report: **Operations and suppliers at significant risk for incidents of child labor** GRI Report: **308-1 New suppliers that were screened using environmental criteria**		UNGC
GRI 409: 2016	**Forced or Compulsory Labor**			
GRI 103-1/2/ 3:2016	Management approach	GRI Report: **Management approach: Human Rights** **Integrated Report: Human Rights**		

Disclosure		Links	External Assurance	UNGC
409-1	Operations and suppliers at significant risk for incidents of forced or compulsory labor	GRI Report: **Operations and suppliers at significant risk for incidents of forced or compulsory labor** GRI Report: **308-1 New suppliers that were screened using environmental criteria**		UNGC
GRI 412: 2016	**Human Rights Assessment**			
GRI 103-1/2/ 3:2016	Management approach	GRI Report: **Management approach: Human Rights** **Integrated Report: Human Rights**		
412-1	Operations that have been subject to human rights reviews or impact assessments	GRI Report: **Operations that have been subject to human rights reviews or impact assessments** **Corporate Website: Human Rights**		UNGC
412-2	Employee training on human rights policies or procedures	GRI Report: **Employee training on human rights policies or procedures**		UNGC
412-3	Significant investment agreements and contracts that include human rights clauses or that underwent human rights screening	GRI Report: **Significant investment agreements and contracts that include human rights clauses or that underwent human rights screening**		UNGC
GRI 414: 2016	**Supplier Social Assessment**			
GRI 103-1/2/ 3:2016	Management approach	GRI Report: **Management approach: Sustainability Performance in the Supply Chain** **Integrated Report: Sustainability Performance in the Supply Chain**		
414-1	New suppliers that were screened using social criteria	GRI Report: **New suppliers that were screened using social criteria**	✔ PwC CH	UNGC
414-2	Negative social impacts in the supply chain and actions taken	GRI Report: **Negative social impacts in the supply chain and actions taken**	✔ PwC CH	UNGC
GRI 415: 2016	**Public Policy**			
GRI 103-1/2/ 3:2016	Management approach	GRI Report: **Management approach: Policy and Stakeholder Relations** **Integrated Report: Policy and Stakeholder Relations**		
415-1	Political contributions	GRI Report: **Political contributions**		UNGC
GRI 416: 2016	**Customer Health and Safety**			
GRI 103-1/2/ 3:2016	Management approach	GRI Report: **Management approach: Product Stewardship / Sustainable Chemistry** **Integrated Report: Product Stewardship / Sustainable Chemistry**		
416-1	Assessment of the health and safety impacts of product and service categories	GRI Report: **Assessment of the health and safety impacts of product and service categories** **Integrated Report, Product Stewardship/Sustainable Chemistry**	✔ PwC CH	
416-2	Incidents of non-compliance concerning the health and safety impacts of products and services	GRI Report: **Incidents of noncompliance concerning the health and safety impacts of products and services**		
GRI 417: 2016	**Marketing and Labeling**			

Disclosure		Links	External Assurance	UNGC
GRI 103-1/2/ 3:2016	Management approach	GRI Report: **Management approach: Product Stewardship / Sustainable Chemistry** **Integrated Report: Product Stewardship / Sustainable Chemistry**		
417-1	Requirements for product and service information and labeling	GRI Report: **Requirements for product and service information and labeling**		
417-2	Incidents of non-compliance concerning product and service information and labeling	GRI Report: **Incidents of non-compliance concerning product and service information and labeling**		
417-3	Incidents of non-compliance concerning marketing communications	GRI Report: **Incidents of noncompliance concerning marketing communications**		
GRI 418: 2016	**Customer Privacy**			
GRI 103-1/2/ 3:2016	Management approach	GRI Report: **Management approach: Customer Relationships** GRI Report: **Management approach: Ethics and Compliance** **Integrated Report: Customer Relationships** **Integrated Report: Core Processes for Value Creation**		
418-1	Substantiated complaints concerning breaches of customer privacy and losses of customer data	GRI Report: **Substantiated complaints concerning breaches of customer privacy and losses of customer data**		
GRI 419: 2016	**Socioeconomic Compliance**			
GRI 103-1/2/ 3:2016	Management approach	GRI Report: **Management approach: Ethics and Compliance** **Integrated Report: Ethics and Compliance**		
419-1	Non-compliance with laws and regulations in the social and economic area	GRI Report: **Non-compliance with laws and regulations in the social and economic area**		

Independent Assurance Report on the Clariant Sustainability Reporting 2020

To the Board of Directors of Clariant Ltd, Muttenz

We have been engaged to perform assurance procedures to provide limited assurance on the sustainability reporting of Clariant Ltd and its consolidated subsidiaries ("Clariant") for the year ended 31 December 2020.

SCOPE AND SUBJECT MATTER

Our limited assurance engagement focused on the 2020 sustainability indicators as published on Clariant's website[1] http://reports.clariant.com/2020/gri

a. The selected quantitative 2020 sustainability indicators as summarized in the GRI content index section and disclosed in the respective text boxes and marked with " ✔ PwC CH" and

b. The management and reporting processes to collect and aggregate the data as well as the control environment in relation to the data aggregation of these data.

CRITERIA

The reporting criteria used by Clariant are described in the internal reporting guidelines and define those procedures, by which the sustainability indicators are internally gathered, collated and aggregated. The internal guidelines are based on the GRI Sustainability Reporting Standards (GRI Standards) published by the Global Reporting Initiative (GRI).

INHERENT LIMITATIONS

The accuracy and completeness of sustainability indicators are subject to inherent limitations given their nature and methods for determining, calculating and estimating such data. Our as-

surance report should therefore be read in connection with Clariant's internal guidelines, definitions and procedures on sustainability reporting. Further, the greenhouse gas quantification is subject to inherent uncertainty because of incomplete scientific knowledge used to determine emissions factors and the values needed to combine emissions of different gases.

CLARIANT RESPONSIBILITY

The Board of Directors of Clariant Ltd is responsible for both the subject matter and the criteria as well as for selection, preparation and presentation of the information in accordance with the criteria. This responsibility includes the design, implementation and maintenance of related internal control relevant to this reporting process that is free from material misstatement, whether due to fraud or error.

OUR RESPONSIBILITY

Our responsibility is to express a limited assurance conclusion on the sustainability indicators as published on Clariant's website[1] http://reports.clariant.com/2020/gri and marked with "✔ PwC CH" based on the procedures we have performed and the evidence we have obtained. We conducted our limited assurance engagement in accordance with the International Standard on Assurance Engagements 3000 (revised), "Assurance Engagements other than Audits or Reviews of Historical Financial Information", and, in respect of greenhouse gas emissions, with the International Standard on Assurance Engagements 3410, "Assurance Engagements on Greenhouse Gas Statements", issued by the International Auditing and Assurance Standards Board. These standards require that we plan and perform this engagement to obtain limited assurance about whether the sustainability indicators are free from material misstatement.

A limited assurance engagement undertaken in accordance with ISAE 3000 (revised) and ISAE 3410 involves assessing the suitability in the circumstances of Clariant's use of applicable criteria as the basis for the preparation of the sustainability indicators, assessing the risks of material misstatement of the sustainability indicators whether due to fraud or error, responding to the assessed risks as necessary in the circumstances, and evaluating the overall presentation of the sustainability indicators. A limited assurance engagement is substantially less in scope than a reasonable assurance engagement in relation to both the risk assessment procedures, including an understanding of internal control, and the procedures performed in response to the assessed risks. The procedures selected depend on the assurance practitioner's judgement.

OUR INDEPENDENCE AND QUALITY CONTROLS

We are independent of Clariant in accordance with the International Code of Ethics for Professional Accountants (including International Independence Standards) issued by the International Ethics Standards Board for Accountants (IESBA Code) that are relevant to our audit of the financial statements and other assurance engagements in Switzerland. We have fulfilled our other ethical responsibilities in accordance with the IESBA Code.

Our firm applies International Standard on Quality Control 1 and accordingly maintains a comprehensive system of quality control including documented policies and procedures regarding compliance with ethical requirements, professional standards and applicable legal and regulatory requirements.

SUMMARY OF THE WORK PERFORMED

Our limited assurance procedures included, but were not limited to the following work:

- Reviewing the application of Clariant's internal guidelines
- Interviewing Clariant representatives at Group level responsible for the data collection and reporting
- Interviewing Clariant representatives in Germany, Japan and Brazil responsible for the data collection and reporting
- Performing tests on a sample basis of evidence supporting the sustainability indicators as outlined in the scope and subject matter section concerning completeness, accuracy, adequacy and consistency
- Inspecting the relevant documentation on a sample basis
- Reviewing and assessing the management reporting processes for sustainability reporting and consolidation and their related controls

We have not carried out any work on data other than outlined in the scope and subject matter section as defined above. We believe that the evidence we have obtained is sufficient and appropriate to provide a basis for our assurance conclusions.

LIMITED ASSURANCE CONCLUSION

Based on the procedures we performed, nothing has come to our attention that causes us to believe that

1. The 2020 sustainability indicators of Clariant as described in the scope and subject matter section and published on the website[1] http://reports.clariant.com/2020/gri and marked with "✔ PwC CH" are not prepared and disclosed in all material respects in accordance with Clariant's internal guidelines and procedures; and
2. The management and reporting processes to collect and aggregate the data as well as the control environment in relation to the data aggregation are not functioning as designed.

PricewaterhouseCoopers AG

Paul de Jong Raphael Rutishauser

12 March 2021

[1] The maintenance and integrity of Clariant's website is the responsibility of the Board of Directors; the work carried out by us does not involve consideration of these matters and, accordingly, we accept no responsibility for any changes that may have occurred to the key figures or reporting criteria when presented on Clariant's website.