CLARIANT

2022

Business Report

Greater chemistry

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The Integrated Report consists of five reports that cover important aspects of our business. They can be read in conjunction with each other. Together, the reports provide a full picture of our ability to create long-term value.

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The Business Report is integral to Clariant's Reporting Hub 2022, which provides comprehensive information about Clariant's long-term value creation. The report explains Clariant's integrated business model, purpose-led strategy, and culture, demonstrating the company's integrated thinking. For the three business areas and for the Group overall, the report reviews the financial year, including the leadership's perspective on Clariant's short- and long-term profitability.

As one of the world's leading specialty chemicals companies, Clariant contributes to value creation with innovative and sustainable solutions for customers from many industries. The company portfolio is designed to meet very specific needs with as much precision as possible.
At the same time, Clariant's research and development is focused on addressing the key trends of our time. These include energy efficiency, renewable raw materials, emission-free mobility, and the conservation of finite resources. The corporate strategy is guided by the overarching purpose of »Greater chemistry – between people and planet« and reflects the importance of connecting customer focus, innovation, sustainability, and people. For the 2022 financial year, Clariant reports in three business areas: Care Chemicals, Natural Resources, and Catalysis.

Clariant Key Figures (continuing operations)

11 148
Total staff (FTEs)

0.24
LTAR

70
Production sites

3
Core business areas

5 198
Sales (CHF m)

810
EBITDA (CHF m)

15.6 %
EBITDA margin

24 %
Sales growth in local currency

0.64
Scope 1 & 2 GHG emissions in m t CO_2e[1]

2.58
Scope 3 GHG emissions for purchased goods and services (cat. 1) in m t CO_2e

[1] This includes 0.02 m t of biogenic CO_2 emissions

Letter to Stakeholders

Dear Stakeholders,

The year 2022 was a challenging one for the world and for the chemical industry. Clariant's leadership and staff had to deal with extraordinary challenges and a fast-changing environment. Only a few days after Russia's attack on Ukraine, Clariant suspended all business with Russia. This horrible war has caused tremendous suffering and added soaring energy prices and global uncertainty to a long list of problems, such as unreliable supply chains, high prices for raw materials, shortage of labor, inflationary pressures, and high logistics costs. Even under these challenging circumstances, Clariant displayed resilience and followed a profitable growth path. While other chemical sectors saw weakening demand, the company's specialty portfolio remained attractive to customers worldwide. Clariant continued to focus on sustainability, especially in the context of energy security and greenhouse gas emission reduction.

On the basis of all these facts, the Board of Directors proposes a distribution of CHF 0.42 per share for the 2022 financial year to give all shareholders a due share in Clariant's success.

2022 also brought about important changes within Clariant. The company established a new operating model in line with its purpose-led strategy, which resulted in a simplified leadership structure. Clariant flattened hierarchies and reduced complexity while also fostering transparency, diversity, and governance. The new Executive Steering Committee (ESC) is authorized by the Board of Directors to steer the company. It has overall strategic and financial responsibility, including for our profit and loss statement. The ESC consists of the Chief Executive Officer (CEO), the Chief Financial Officer (CFO), and the three Business Presidents. Each Business President has the responsibility for a business unit and for the region that is central to the future success of that business unit.

A larger team meets when it comes to important strategic decisions: The Executive Leadership Team (ELT) consists of the ESC along with the Chief Human Resources Officer, the Chief Technology & Sustainability Officer, the Chief Corporate Development Officer, and the General Counsel. By bringing all key functions together, Clariant ensures fast decision-making while incorporating all internal stakeholders' needs. The ELT supports the ESC by promoting dialogue among its members, exchange of information and enabling awareness of the Group's environment. The potential alternatives are then brought to the Board of Directors, where, after a common discussion, a final decision is made.

Günter von Au
Chairman of the Board of Directors

The updated Management Bylaws provide the basis for this new setup. They set out the form, manner as well as general principles of how Clariant should be run. The Management Bylaws are one of the key elements of our larger Group Charter House, which comprises all governance elements. On the foundation of our Code of Ethics, and in accordance with our purpose, the new operating model, our values and leadership principles, the Group Charter House provides a solid frame for the governance and risk management at Clariant. At the same time, it reflects on our aspiration to drive simplicity, agility, and accountability in our company.

In 2022, Clariant also introduced new values as cornerstones of company culture and corporate success. They are accompanied by new diversity, equity, and inclusion objectives and a detailed roadmap to achieving them. This journey will require everyone at Clariant to continuously review how the company can create a more equitable and inclusive workplace that engages a workforce reflective of the world's diversity.

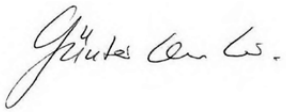
With its new operating model, Clariant is well set up for organic growth. The company will keep the businesses close to their most important regions and customers. The aim is to achieve above-average growth in all three business areas, with a focus on China as the world's largest and fastest-growing specialty chemicals market. We intend to support our cultural transformation and to pursue our diversified investment strategy. Our organic growth will be supported with a series of smaller, high-value bolt-on acquisitions. Clariant remains committed to achieving its 2025 financial and 2030 non-financial targets and to advancing in environmental, social, and governance dimensions. This includes the implementation of science-based targets to fight climate change and to contribute to the UN Sustainable Development Goals (SDGs).

»Even under challenging circumstances, Clariant displayed resilience and followed a profitable growth path.«

Günter von Au
Chairman of the Board of Directors

The Board of Directors and the Clariant Management are fully committed to these targets and to creating value for all our stakeholders. We appreciate that so many customers, employees, investors, shareholders, suppliers, and other stakeholders engage in open discussions with us. Their feedback is valuable for everyone on the Board, as these highly relevant perspectives and insights always improve our decision-making. My colleagues on the Board of Directors and I thank everyone who contributed to the success of Clariant in 2022.

Sincerely,



Günter von Au
Chairman of the Board of Directors

Interview with the CEO

We are now well into the year 2023, but the world is still dealing with the aftermath of 2022. How do you assess the geopolitical situation?

The past years have seen many events with far-reaching geopolitical effects. The war on Ukraine has been going on for over a year now, and I am still shaken by the suffering it causes. In its wake, Europe has seen tremendous energy price increases, which have eased, but not fully normalized to this day, and have contributed to global inflation of 8.8%. Moreover, the impact of COVID-19 is still visible in some countries. This includes China, where GDP growth was only 3.0% compared to global GDP growth of 3.4%. There will be a rebound in China, but it is too early to assess when we will see it and how big it will be. In the US, GDP growth was also relatively weak at 2.0%. But let me just say that, while the war and the pandemic are tragic, it was impressive to see how the Clariant community has responded with resilience and solidarity.

These developments also affected the chemical industry. Is the sector in good shape?

Many chemical corporations were hit hard last year. The industry suffered from shortages in the supply of Russian oil and natural gas as well as skyrocketing energy costs, high prices for raw materials, and ongoing supply chain challenges. Especially Europe was hit by the energy crisis. The output of the chemical industry in Europe was lower than the year before. At the moment, the gas storage facilities are above historic levels, thanks to a mild winter, consumer savings, and industry contributions. But still, we expect the challenges in Europe to continue. In the US, chemical producers could rely on cheaper domestic gas, allowing the country to outperform most other regions. China's chemical production grew despite repeated lockdowns. Across the industry, we saw lower demand and declining margins in the last quarter of 2022. We are pleased that we were able to deliver strong results despite the turbulent environment.

Conrad Keijzer
Chief Executive Officer (CEO)

With fossil energy supply becoming more expensive and unstable, do you think that chemical corporations will now accelerate the shift to climate-neutral energy and products?
In the short term, the emphasis has unfortunately shifted to energy security rather than energy transition. However, the geopolitical crisis will accelerate the medium-term shift to climate-neutral energy and products. Becoming climate-neutral reduces operational risks, will make sense financially, and will be the license to operate in the not-too-distant future. Beyond that, it is the right thing to do. Of course, it requires enhanced effort, for example, with respect to energy efficiency, green electricity, and the use of biomass as feedstock. This decarbonization challenge offers opportunities for innovation-driven companies – such as Clariant.

What kind of opportunities?
We can help our customers reduce their carbon footprint by delivering low-carbon products or by helping them decrease their emissions. For example, in the field of innovative hydrogen technologies, we teamed up with Technip Energies to develop the breakthrough EARTH® technology for steam methane reforming. Producing hydrogen from natural gas is the most common way and demands the reduction of its CO_2 footprint. EARTH® combines a new technology and a new catalyst that reduces makeup fuel consumption by up to 50% and CO_2 emissions by up to 10%. Further, we provide solutions that foster circularity and enable a bio-based economy. These include adsorbent clays that purify biodiesel, bio-based surfactants, and additives derived from crude rice bran wax. These bio-based additives function as highly effective lubricants and dispersion aids for, for example, thermoplastics such as polyamides and bring us one step closer to more sustainable plastics.

In addition to being innovative: What does the chemicals industry need to better fight climate change?
The chemical sector is uniquely placed to actively fight climate change. It is obvious that nobody can manage the challenges that are ahead of us alone. To be successful, we need collaboration along the value chain, as well as a global framework with clear commitment from policymakers and functioning coordination across all jurisdictions. That is an enormous task. We must be united in approaching this – industry, politics, investors, and civil society alike. One example is our membership in the »Together for Sustainability« initiative, an association of chemical companies with total sales of more than EUR 600 billion. Our common goal is to build up sustainable chemical supply chains, align on regulatory requirements, and respond to the needs and expectations of society. Clariant was one of the first companies in the specialty chemicals industry to announce Scope 3 upstream targets, and we are working on numerous projects with clients to improve theirs.

»We are pleased that we were able to deliver strong results despite the turbulent environment.«

Conrad Keijzer
Chief Executive Officer (CEO)

Let's talk about Clariant's results in the past year. How did the company perform in 2022?
We reported sales growth of 24% in local currency, with strong double-digit growth in all business areas. This is an impressive achievement because it demonstrates our ability to pass on rising costs to our customers but also to outgrow our markets with sales volumes growing by 7%. The fact that we also improved our continuing operations EBITDA by 14% to CHF 810 million is a significant success, considering the challenging environment. The EBITDA margin declined slightly to 15.6% due to restructuring costs and the negative impact from sunliquid®. Our net operating cash flow also improved significantly to CHF 502 million, an increase of CHF 139 million versus 2021. This was the result of strong underlying earnings and net working capital management. Our portfolio has proven to be resilient as it addresses key growth trends like bio-based products, decarbonization, and circularity. Additionally, as a specialty chemicals company, we have less energy-intensive production than large-scale commodity chemical companies, meaning we were less affected by the energy crisis.

How did the individual business areas perform in 2022?
Care Chemicals grew sales by 28% in local currency in full year 2022 with double-digit sales growth in all key businesses. The full integration of the bolt-on acquisition Beraca, in Brazil, contributed approximately 1% of this sales growth. The sales growth in Consumer Care and Industrial Applications rose more than 20% on the back of strong market demand, especially during the first nine months of the year. In the fourth quarter, volumes declined due to customer destocking and significantly lower demand. The Aviation business contributed positively to the Industrial Applications development due to supportive weather and increased air traffic activities. Our EBITDA margin increased to 22.3% from 20.7% due to higher volumes and active price

management, which compensated for raw material cost headwinds. In Catalysis, the top line was up by 14 % in local currency. This growth was mainly volume-driven in all three business lines. The EBITDA margin decreased to 9.4 % from 16.8 % in the previous year. The main factors impacting this development included project cost and higher operational cost related to sunliquid®, a less favorable product mix during the first nine months of 2022, including the suspension of all business with Russia, and a temporary margin squeeze, which continued into September due to raw material, energy, and logistics cost pressure. Due to the long lead times, we were only able to adjust the pricing of our products with a certain delay. In Natural Resources, Oil and Mining Services, Functional Minerals, and Additives all contributed to the 25 % local currency sales growth. Oil and Mining Services reported a continued recovery in oil services, ongoing growth in mining, and a strong refinery business. Functional Minerals delivered positive developments in all business lines, especially Purification and Cargo & Device Protection. The acquisition of BASF's US Attapulgite business, which we concluded in October 2022, started to contribute to the Functional Minerals sales growth and strengthens our market position in the highly attractive North American market. Additives reported strong growth based on increased volumes and pricing, in particular in the first nine months. A key growth driver in the last year was our flame retardants business, which benefits from the trend toward sustainable solutions in e-mobility combined with leading product performance. The halogen-free flame retardant is used in key end markets such as electric vehicles and electronic applications like 5G devices. The business area's EBITDA margin increased to 18.0 % from 17.0 % due to revenue growth in all business units, which was propelled by both pricing and higher volumes which resulted in improved operating leverage.

»Becoming climate-neutral reduces operational risks, will make sense financially, and will be the license to operate in the not-too-distant future. Beyond that, it is the right thing to do.«

Conrad Keijzer
Chief Executive Officer (CEO)

What were some of the highlights in the different regions?
In the Americas, we completed the acquisition of BASF's US Attapulgite business assets, strengthening our leading technology position in the growing markets for the purification of edible oils and renewable fuels. This is a perfect example of our disciplined approach to bolt-on acquisitions, as it provides tangible synergies, strengthens one of our core segments, and brings us closer to our 2025 targets. In APAC, we still see significant potential in the Chinese markets. We therefore invested a total of CHF 180 million in new and existing facilities in Daya Bay. This will increase our production capacity for existing products such as ethylene oxide derivatives and flame retardants. In EMEA, we developed and implemented a plan making us less dependent on reduced gas availability from Russia. Here, Germany is particularly affected. The mitigation measures in Germany include switching the fuel from gas to oil or switching from gas-generated power to external electricity.

There have been a number of changes in Clariant's organization and leadership. What is the idea behind these changes?
They are all part of our new operating model for stronger customer focus, better and faster decision-making, greater empowerment, more accountability, and transparency. Our organizational setup was too complex for a company of our size. To give you one example: In some parts of Clariant, we had eleven layers of management between a plant operator and the CEO. We now have fewer hierarchical layers and less complexity in our organization, which will speed up and improve our decision-making. We now have a maximum of six management layers between the operative staff and the CEO. At the same time, we reduced the number of our internal meetings and empowered front line employees to take more responsibility for decisions in their respective area.

In the context of this new operating model, Clariant reduced the number of business units from five to three. What does this mean for customers?

It means that we will be closer to them than before. And I mean that quite literally. It's not only that we have reduced the number of business units. Each business unit is now organized into business lines reflecting market segments, rather than product lines as before. This means our organization is now fully focused on markets and customers. We have also appointed presidents for the three business units, who are located in the regions with the largest customer base and the highest growth potential for the respective business. As they are also presidents for the respective regions, these managers have a very strong focus on their customers.

In addition to making organizational changes, Clariant also announced new values: »win with our customers,« »act with integrity,« »perform with agility,« »innovate for sustainability,« and »empower and include.« How are these two developments related?

Both developments result from our purpose-led strategy, which we launched in 2021. With this strategy, we set up Clariant for growth. Our new, more complete set of values reflects our purpose statement and our stronger growth mindset, and it will be the basis for an even stronger entrepreneurial culture. I see our values more as an evolution of an already strong value-based culture, rather than as a revolution. They describe what we stand for and make sure that we all show a consistent behavior when dealing with each other or with external stakeholders.

In June 2022, Clariant also launched its DE&I roadmap. What is the intention behind this?

Our DE&I roadmap is an essential part of Clariant's purpose-led strategy, aimed at building a more diverse, equitable, and inclusive future by focusing on gender equality, an inclusive culture, and cultural identity. For each of these areas, Clariant has set ambitious targets for 2030, which are accompanied by a variety of concrete actions. I am optimistic about this topic since we already have a well-filled talent pool, including a high number of high potentials, both male and female, from all key regions.

In terms of gender equality, we strive to provide equal opportunities for all genders, with a special focus on strengthening the gender balance at the Management level which aims to increase the current female representation to at least 30 % by 2030. With regard to cultural identity, we want to provide equal access to career development for all ethnicities and ensure that our global business footprint is reflected in Clariant's leadership teams. Therefore, we strive to increase the share of leaders of national origin outside Europe to more than 40 % by 2030.

Do you anticipate Clariant's healthy performance to continue into 2023, and how would your business be affected by a dip in customer demand and the projected economic slowdown?

We already began being affected by the slowdown in volumes, which started in Europe in Q3. However, we are confident that we will continue to outperform our overall markets due to continued strong demand for sustainability-driven solutions. For example, our flame retardants, which are used in plastic parts for electrical vehicles, remain in very high demand as this segment in the automobile industry continues to experience robust growth. In the US, we see growth for our adsorbents, which are used in the purification of renewable diesel – a market that is experiencing strong tailwinds from the Inflation Reduction Act – as well as from bio-based and biodegradable coatings. Beyond the sustainability-driven areas, we see a recovery supported by strong demand for propane to propylene catalysts, which supports our catalyst business.

What are the most important achievements Clariant must accomplish in the next years?

We are confident that we are on the right trajectory to achieve our 2025 financial and non-financial targets. Most important to me is that our customers acknowledge us as a leader in sustainability and as their preferred supplier. And finally, we want to achieve top-quartile engagement levels and wish that our employees see – and recommend – us as a highly attractive employer.

Introducing the Executive Leadership Team

The Executive Steering Committee (ESC) under the leadership of Chief Executive Officer (CEO) Conrad Keijzer replaces the former Executive Committee.

Conrad Keijzer
Chief Executive Officer (CEO)
Member of the ESC

Angela Cackovich
Business President Adsorbents & Additives and EMEA
Member of the ESC

Christian Vang
Business President Care Chemicals and Americas
Member of the ESC

Bill Collins
Chief Financial Officer (CFO)
Member of the ESC

Jens Cuntze
Business President Catalysts and APAC
Member of the ESC

Together with the Chief Human Resources Officer, the Chief Technology & Sustainability Officer, the Chief Corporate Development Officer, and the General Counsel, the ESC forms the Executive Leadership Team (ELT).

Tatiana Berardinelli
Chief Human Resources Officer

Judith Bischof
General Counsel

Richard Haldimann
Chief Technology & Sustainability Officer

Chris Hansen
Chief Corporate Development Officer

Clariant on the Capital Markets

The Clariant share at a glance

SHARE DETAILS

Valor symbol	CLN
Valor number	1214263
ISIN	CH0012142631
Trading currency	CHF
Stock exchange	SIX Swiss Exchange
Nominal value	2.6
Security type	Registered share
Dividend 2022	0.42
Free float (%)	68.5
Bloomberg	CLN SW
Reuters	CLN.VX
Index member	Dow Jones Sustainability Index Europe Dow Jones Sustainability Index World MSCI Equity Switzerland Index SMI Mid SMI Expanded SPI SPI Extra SPI ex SLI SPI ESG Weighted SPI ESG Swiss All Share Index SXI Switzerland Sustainability 25 Index UBS 100 Index
Country	Switzerland

Weak SMIM market performance in 2022

The Swiss Market Mid Cap Performance Index (SMIM or SMI MID) comprises the 30 largest mid-cap stocks on the Swiss equity market that are not included in the blue-chip Swiss Market Index. The SMIM exhibited a largely sideways development during the first two months of 2022 with a decidedly downward trend. Then, on 24 February 2022, the Russian invasion of Ukraine resulted in a significant negative market reaction. Following this downbeat development, the market moved largely sideways again until a substantial global reduction in COVID-19 cases generated a performance rebound in early May. By mid-June the index began losing ground again, in part due to rising commodity prices, which led to higher crude prices and had a cascading effect on food prices and other products and services. The stock market reacted negatively in September when European countries put out sanctions on Russia to condemn the attack on Ukraine, and reduced trade of fuel supplies such as oil and gas. Economic growth in Europe began slowing, and an alarming increase in the number of COVID-19 cases in China in early November resulted in a further negative market development into December 2022.

DATA PER SHARE

Five-year overview and dividend	**2022**	2021	2020	2019	2018
Number of registered shares issued	331 939 199	331 939 199	331 939 199	331 939 199	331 939 199
Number of shares eligible for a dividend	329 016 801	329 116 487	329 553 690	329 352 434	329 688 535
Price at the end of the year (CHF)	14.65	19.00	18.82	21.60	18.09
High of the year (CHF)	20.40	20.50	23.82	22.40	29.38
Low of the year (CHF)	13.90	17.07	14.39	17.10	17.65
Market capitalization at year-end (CHF m)	4 863	6 307	6 247	7 170	6 005
Basic earnings per share (CHF)	0.26	1.04	2.38 [5]	0.03 [3]	1.02
Distribution per share (CHF)	0.42 [1]	0.40 [1]	0.70 [2]		0.55 [4]

[1] Through capital reduction by way of par value reduction

[2] Of which CHF 0.55 relates to the 2019 financial year (dividend payout withheld due to COVID-19 uncertainties) and CHF 0.15 relates to the 2020 financial year; distribution through a capital reduction by way of a par value reduction of CHF 0.70 per registered share

[3] Including CHF 231 m provision for a competition law investigation by the European Commission

[4] Payout from capital contribution reserves

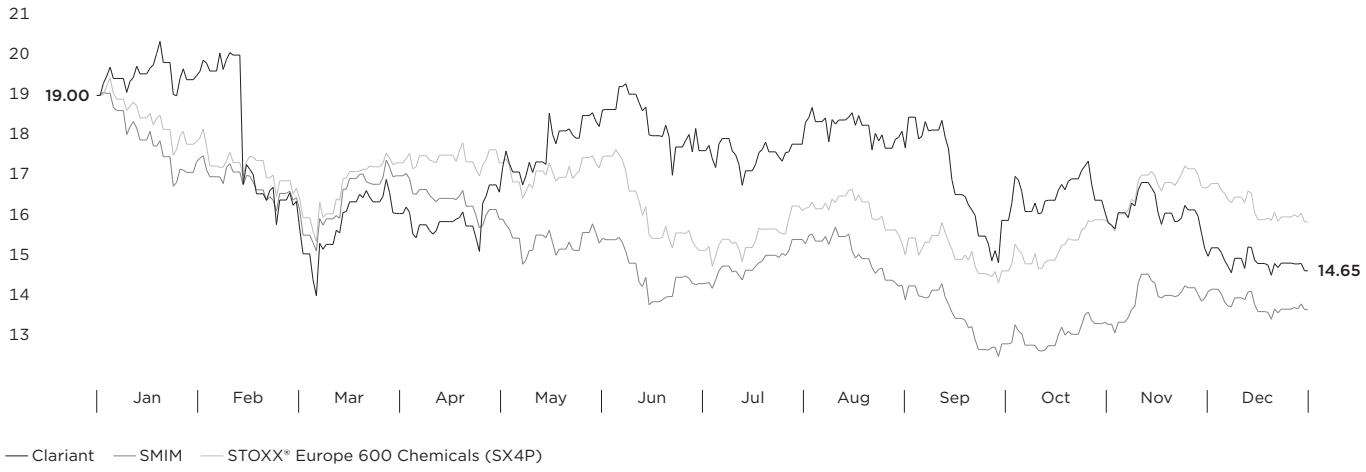
[5] Restated

The SMIM (SMI Mid) closed the 2022 financial year with 2 477 points on 31 December 2022, which corresponds to a decrease of 28% versus the end of the previous year. Closing at 1 141 points, the STOXX® Europe 600 Chemicals (SX4P) fell by 16.5% across the same period.

Clariant share price decreased by 22.9% throughout the course of the year

The Clariant share price ended the year 2022 at CHF 14.65. This corresponds to a decrease of 22.9% compared to the closing price of the previous year (CHF 19.00). Including the CHF 0.40 distribution to shareholders, the total shareholder return (TSR) amounted to –21.2% in 2022. With an opening price of CHF 19.00 on 2 January 2022, the shares trended upwards initially and reached the year's high of CHF 20.40 on 21 January 2022. In mid-February the share price dropped significantly to CHF 16.80 on 14 February 2022, based on the news that Clariant delayed the publication of the Full Year 2021 results due to an investigation into accounting matters related to the booking of provisions and accruals during the financial years 2021 and 2020. The uncertainty regarding the potential magnitude of these discrepancies pulled the share price down to its low point in the year of CHF 13.90 on 8 March 2022. The shares recovered significantly on 27 April 2022 and rose to CHF 16.33 on the news that Clariant concluded the external investigation, met the original guidance for the full year 2021, and only made minor adjustments to the 2020 and quarterly 2021 results. The share price continued to rise slightly ahead of the full year 2021 results, which were published on 19 May 2022. The share price decreased slightly on reporting day to CHF 17.80. On 15 June 2022, Clariant reported markedly stronger growth in the first quarter of 2022, consequently the share price rose to CHF 18.71. The announcement of Clariant's simplified organizational and leadership structure on 22 June 2022 resulted in a slight share price decline to CHF 17.98. Strong second quarter sales growth and a record high EBITDA margin communicated on 28 July 2022 left the share price comparatively unaffected at CHF 17.60. For the next two months, Clariant's share price moved largely in tandem with relevant indexes such as the SMIM and SX4P. On 27 October, the Group announced strong third quarter results, which did not lift the share price at CHF 16.80. The asset impairment of Clariant's bioethanol plant in Romania was announced on 12 December 2022, and the share price fell to CHF 14.71 on this disappointing news. The Clariant shares ended the year with a closing price of CHF 14.65.

001 **CLARIANT SHARE PRICE PERFORMANCE 1 JANUARY – 31 DECEMBER 2022** IN CHF



Dividend

Dividend policy

Clariant's dividend policy remains unchanged. The Group is committed to increasing the absolute dividend in Swiss francs on the back of profitable growth, while maintaining an attractive payout ratio.

Dividend proposal for 2022

The Board of Directors recommends an increased regular distribution of CHF 0.42 per share to the Annual General Meeting 2023 based on the Group's strong performance in 2022. This distribution is proposed to be made through a share capital reduction by way of a par value reduction.

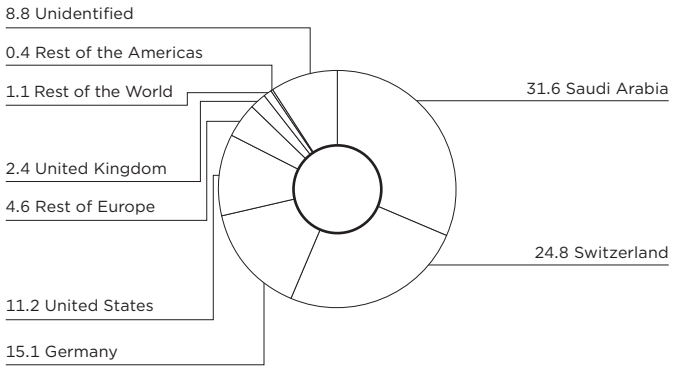
Shareholder structure (shareholders/distribution of free float)

In the 2022 financial year, Clariant maintained its well-diversified and stable shareholder structure. 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 governance agreement entered into by SABIC and Clariant on 17 September 2018 expired at the Annual General Meeting on 24 June 2022. Consequently, Clariant's treasury shares are no longer combined with the shares held by SABIC to form one group, as was previously the case.

Based on the notifications received by Clariant and published by SIX Exchange Regulation, on 31 December 2022, the following shareholders held 3% or more of the voting rights in Clariant Ltd:

- SABIC International Holdings B.V., 31.5%
- BlackRock Inc., 3.8%
- Blue Beteiligungsgesellschaft mbH and Maple Beteiligungsgesellschaft mbH, 3.5% (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.)

002 **GEOGRAPHIC DISTRIBUTION OF SHAREHOLDINGS** IN %



Subject to certain limitations on voting by nominees, each registered share entitles the holder to one vote at shareholders' meetings. Shareholders have the right to receive dividends and other such rights as 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 28th Annual General Meeting on 4 April 2023.

Analyst coverage

In the 2022 financial year, Clariant was actively covered by 18 sell-side analysts tracking the financial performance of Clariant on behalf of their respective companies. Their analyses served as the basis for the performance estimates and recommendations published in the 2022 financial year. At the end of 2022, eleven analysts had a neutral recommendation on Clariant, while seven analysts recommended buying the share and no analyst recommended selling. The average target price of the 18 actively covering analysts was CHF 19.30, representing an upside of 31.7 % from the 2022 closing price of CHF 14.65. The target price range was between CHF 16.00 and CHF 24.00 on 31 December 2022. To facilitate an independent and transparent assessment of performance, Clariant provides analysts and investors with market consensus figures. This consensus is based solely on analyst estimates and in no way reflects the opinion of Clariant. An up-to-date analyst consensus is available on the → Clariant website. This information reflects analyst forecasts as of 26 January 2023 and will change on a continuing basis.

Ratings

An overview of the most recent ratings of the Clariant share and bonds can be found on the → Clariant website.

Dialogue with the capital market

Clariant's corporate strategy is aimed at generating long-term value enhancement. That is why continuous and open communication with all capital market participants is important. Clariant primarily used physical meetings as well as virtual formats, such as video or telephone conferences, for the dialogue in 2022. Clariant connects with institutional investors and rating agencies in various one-on-one meetings as well as at roadshows and conferences worldwide. For private investors, the company provides insight at the Annual General Meeting.

Clariant – a sustainable investment

The Clariant shares are attractive for investors focusing on companies with a strong ESG performance. Several leading ESG rating agencies consider Clariant best in class within the chemical industry. Their ratings particularly recognize the company's innovation power for sustainable products, Clariant's business ethics, and the comprehensive measures in place to address relevant sustainability issues. Clariant actively participates in several ESG ratings and is listed in numerous sustainability indices.
→ Read more about Ratings and Rankings.

Business Model and Strategy

The »Business Model and Strategy« chapter presents Clariant's holistic approach to value creation. After showing the company's business model, it presents the purpose-led strategy and outlines Clariant's contribution to the Sustainable Development Goals (SDGs) of the United Nations. Lastly, the chapter describes Clariant's materiality assessment.

OPERATING AN INTEGRATED BUSINESS MODEL

This chapter provides an in-depth overview of Clariant's integrated business model. It presents the company's holistic approach to creating value, providing an overall understanding of the different aspects of Clariant's business, which are depicted in more detail in the subsequent sections of this report and in the Review on Performance, People, and Planet. The chapter also explores the company's external environment and its organizational structure, two important parameters affecting business activities. In addition, it portrays Clariant's core processes for creating value.

A holistic approach to value creation

Long-term value for all stakeholders

Clariant's business model reflects how the company creates long-term value for all stakeholders – customers, employees, shareholders, and the environment, as → Figure 003 depicts. It offers a detailed overview of the company's multidimensional approach to value creation, covering both tangible and intangible, financial and non-financial aspects of the business.

External environment

Clariant's integrated business model provides a strong foundation for the company to successfully navigate the current market dynamics in the specialty chemicals market, including the ongoing challenges posed by the COVID-19 pandemic, the war on Ukraine, and the resulting energy crisis. → Read more in External Environment

Core processes for value creation

Idea to Market, Market to Customer, and Customer to Cash – these are the three value-creation processes at the core of Clariant's business model. By turning customer needs into innovative and sustainable solutions, the company creates value for all stakeholders. Clariant's Innovation Excellence, Commercial Excellence, and Operational Excellence approaches support these processes.

- **Idea to Market:** This process involves scouting global trends, identifying business opportunities, exploring unmet customer needs, developing products, as well as commercializing and monitoring business performance. It is essential for developing a well-filled product and service pipeline that delivers innovations to address customer needs. → Read more in Core Processes for Value Creation
- **Market to Customer:** This 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. → Read more in Market to Customer
- **Customer to Cash:** This process balances supply and demand, optimizing sourcing for spend effectiveness, monitoring production efficiency, and delivering finished goods to customers on time and in full to achieve safe, reliable, and efficient operations that support profitable growth. → Read more in Customer to Cash

Purpose-led strategy with ambitious financial and non-financial targets

Based on Clariant's purpose »Greater chemistry – between people and planet,« and based on its vision, mission, and values, Clariant developed a new strategy. With this purpose-led strategy and the related financial and non-financial targets, the company is committed to creating value while striving to achieve top-quartile performance compared to specialty chemical peers. → Read more in Purpose-Led Strategy

003 **BUSINESS MODEL**

External environment

Societal trends and market drivers

Input (continuing operations)

Resources and relationships that Clariant draws upon for its business activities

160
R&D spend in CHF m

> 330
Active innovation projects

> 65
Scientific collaborations

2 258
Raw material procurement in CHF m

3.50
Raw materials procured in m t

70
Production sites

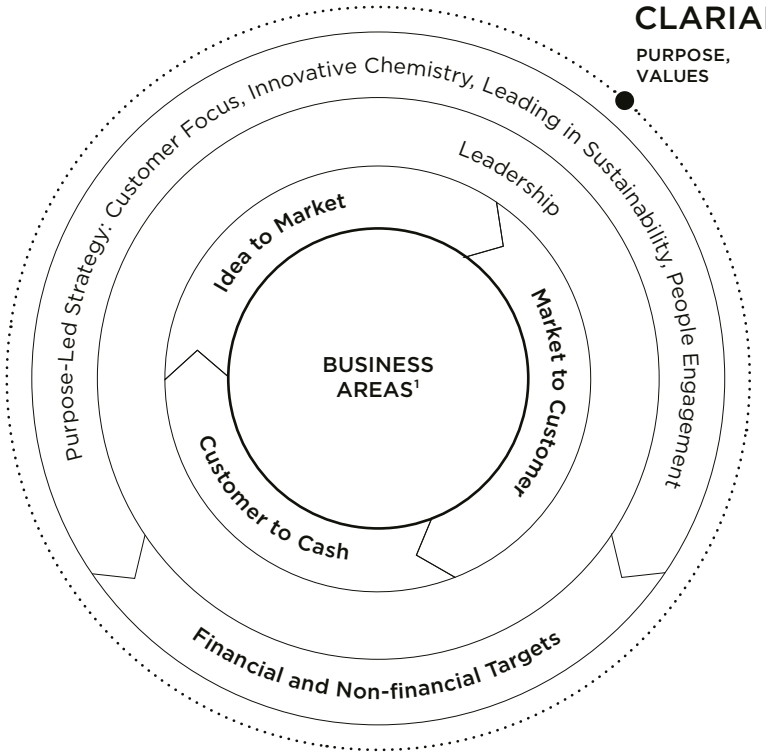
89 %
Raw material spend covered by sustainability evaluations

1 418
New employees hired

114 508
Training hours

680
Energy consumption in kWh/t production

2.24
Water intake in m^3/t production



Output (continuing operations)

Results from Clariant's business activities

5 198
Sales in CHF m

24 %
Growth in local currencies

15.6 %
EBITDA margin

1.5 %
Return on invested capital (ROIC)

> 5.5 %[2]
Growth through innovation

> 4 300
Patents at year-end

3.8
Production volume in m t

0.24
Lost-time accident rate (LTAR)

11 148
Staff in FTEs at year-end

0.64
Scope 1 & 2 GHG emissions in m t CO_2e[3]

1.62
Wastewater in m^3/t production

2.58
Scope 3 GHG emissions for purchased goods and services (cat. 1) in m t CO_2e

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.

IMPACT ON GLOBAL SUSTAINABLE DEVELOPMENT

Clariant's contribution to global sustainable development is further illustrated in the chapter
→ Contributing to the SDGs

[1] As of 1 January 2023: Business Units
[2] 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.
[3] This includes 0.02 m t of biogenic CO_2 emissions

Impact on global sustainable development

In addition to Clariant's strategic objectives, the company follows the objectives set by the United Nations Sustainable Development Goals (SDGs). In relation to the SDGs, Clariant evaluates the positive and negative impacts of its products and services, operations, value chain, corporate citizenship activities, and collaborations. →Read more in Contributing to the SDGs

While contributing to all 17 SDGs in varying degrees, Clariant identified six priority SDGs for the company: SDG 3 »Good Health and Well-being,« SDG 7 »Affordable and Clean Energy,« SDG 9 »Industry, Innovation, and Infrastructure,« SDG 12 »Responsible Consumption and Production,« SDG 13 »Climate Action,« and SDG 17 »Partnerships for the Goals.«

Value creation in the financial year

With customer-oriented products and solutions, Clariant and its business areas created value for the company and its stakeholders in the 2022 financial year, enhancing Clariant's growth and profitability. →Read more in Value Creation

Reviewing value creation

To measure and track the financial and non-financial value that Clariant creates for all stakeholders, the company monitors key performance indicators, including the ones mentioned under »Inputs« and »Outputs.« These indicators are associated with Clariant's material topics, which were identified through a comprehensive materiality assessment.
→Read more in our Review on People, Performance, and Planet

External environment

In 2022, several external developments had a significant influence on Clariant's business. In particular, the war on Ukraine and the resulting sanctions on Russia led to high energy prices and exacerbated supply chain issues. Despite this challenging situation, the industry continues to focus on sustainability, particularly in the context of energy security and GHG emission reduction. China's zero-COVID policy further strained supply chains in and out of China and had a negative impact on Chinese growth.

Q&A

Chris Hansen
Chief Corporate Development Officer
Member of the Executive
Leadership Team

You started as Chief Corporate Development Officer in July 2022. What does your role comprise, and what are your priorities?
I am responsible for Corporate Strategy, Procurement, and for our Engineering & Process Technology department. Each of these functions of course has its own priorities. But at an overall level, my priorities are threefold. First, I want to drive our company's sustainability transformation forward at a strategic level, ensuring that we define and execute initiatives that move the needle and make a real impact. Second, I will continue to scout for and realize bolt-on M&A opportunities to complement our portfolio and capabilities. My third priority lies in communicating, exemplifying, and cementing our new Clariant values and the related behaviors and capabilities throughout my teams and the broader organization, in particular the customer focus.

What are you most proud of when you think about Clariant?
Clariant has a true purpose, a purpose that aims high yet is actionable and practically meaningful. »Greater chemistry – between people and planet« stands for our ambition to protect the planet and the living standards of current and future generations – jointly with our customers. Through our actions, innovations, and climate-friendly products, we make a real difference.

You have worked for Clariant for 14 years now. What have been your best experiences to date?
I have spent most of my years at Clariant running actual business operations. We give our business leaders a lot of freedom to shape and decide how to do things, and I have had great fun working with teams all over the world in trying new things, failing and – luckily – mostly succeeding. It is always a great feeling when our value proposition convinces a customer and we gain a business in a true win-win situation. I find the biggest satisfaction of all, though, in seeing how team members learn and develop as leaders and individuals, and I am happy to have formed a number of close friendships over the years.

Clariant Excellence was launched more than a decade ago. How do you see the Excellence culture in Clariant today?
Clariant Excellence and the culture of continuous improvement is strongly anchored throughout our company today, thanks to excellence initiatives launched, rolled out, and sustained over the years. We have reached a maturity level that has allowed us to roll back the corporate teams to a bare minimum and to continue the implementation within each business unit and location. This means we can focus more senior management attention on what we do versus how we do it, that is, on the strategic direction.

Global economic setting

In the first half of 2022, demand remained quite strong as consumers continued to spend after COVID-19 restrictions were removed. There was a shift from spending on goods to services and leisure as consumers were free to resume their normal lives in most regions. The high energy prices resulting from the war on Ukraine and continuing supply chain issues in certain value chains led to significant inflationary pressures at a time of good demand. As wages have not kept pace with inflation, consumer spending power has been reduced. At the same time, central banks have tightened monetary policy and raised interest rates to reduce demand and control inflation. In the second half of 2022, this led to a weakening of demand. At the same time, many supply-chain issues eased, and logistic costs between regions fell. Inventory levels reached or exceeded normal levels. At the end of 2022, industrial demand was relatively weak, although inflation remained high and central banks continued to raise interest rates.

Impact on the chemical industry

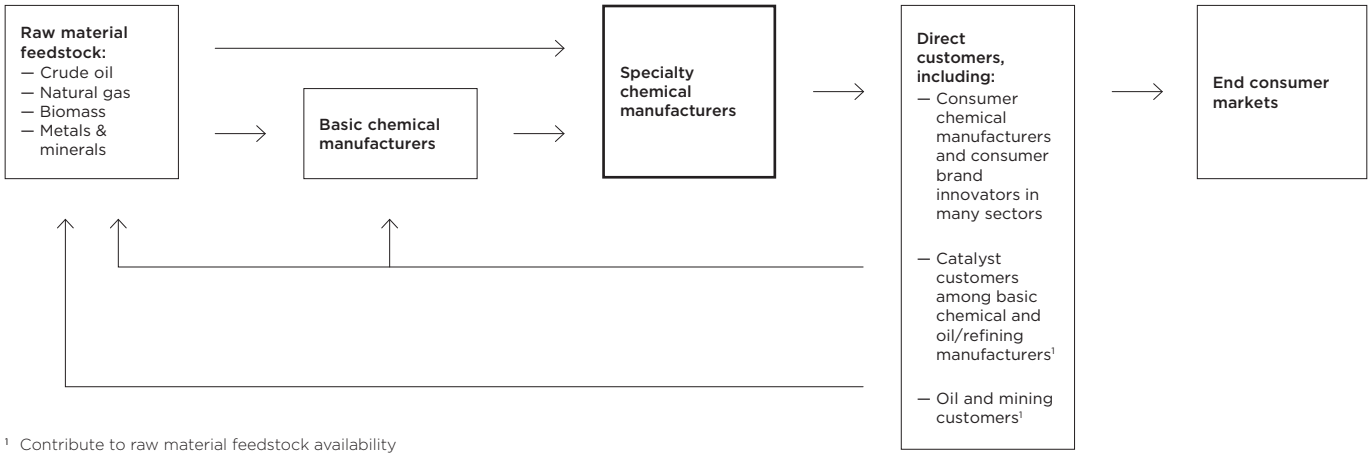
Typical raw materials for the chemical industry include crude oil and derivatives, natural gas, metals, and minerals. Supply shortages arising from the war on Ukraine caused a shortage in some of these primary products, particularly in Europe, with prices rising significantly. In the first half of 2022, continuing strong demand for chemical products and restocking allowed the high prices achieved in 2021 to be maintained, together with strong sales and margins across the chemical industry, with capacities often well utilized. As the year progressed and demand weakened, certain sectors of the industry, such as base chemicals, saw weakening prices and margins. This was less true in the specialty chemical industry, where sectors such as care chemicals and oilfield services, as well as products for the recovering automotive segment, experienced continued or increasing demand.

Even under these dynamic trading conditions, customers and suppliers continued to develop their sustainability roadmaps, with alternative future feedstocks and sustainable products and solutions looking more attractive in both sustainability and economic terms.

COVID-19 challenges mainly limited to China

In 2022, the largest remaining impact of the COVID-19 pandemic was in China due to the continued zero-COVID policy. Both the supply side and the demand side were negatively affected by local lockdowns. In some markets, such as base chemicals, where significant new capacity has been commissioned in recent years, the resulting overcapacity led to price and margin pressure and some localized temporary shutdowns.

004 **THE ROLE OF SPECIALTY CHEMICAL FIRMS IN THE CHEMICAL INDUSTRY VALUE CHAIN**



[1] Contribute to raw material feedstock availability

Focus on sustainability and performance

Globally, the chemical industry is one of the largest consumers of energy. This results in significant contributions to global greenhouse gas emissions. Chemical companies also use oil and gas as feedstock and handle hazardous materials. While this confers great responsibility, it also creates opportunities for companies to become industry leaders in sustainable development, capturing competitive advantage in the process.

Despite the challenges from the energy crisis, the trend toward increased sustainability continued in 2022 with new proposed legislative initiatives and increasing customer and investor focus on the topic. Chemical companies are expected to substitute unsustainable products, while offering innovations for a low-carbon, circular economy. Consequently, further companies set new sustainability targets and announced sustainability initiatives.

Mounting importance of the Chinese market and industry

Despite the issues resulting from the zero-COVID policy, China remains the world's largest market for chemical sales. It accounts for about 35% of the global specialty chemical markets. China's current five-year plan is focused on innovation as the core concept to drive the country's modernization, promoting high-end, intelligent, and green production. This continues to provide interesting opportunities for Clariant and others.

Local presence on the ground in China has become even more important in the current environment of constrained logistics, trade tensions, and COVID-19 restrictions. This applies to manufacturing, technical support, products, and commercial management. Therefore, chemical companies increasingly seek to be close to their Chinese customers and partners and to work locally.

Despite the supply and demand issues in 2022, Chinese demand growth continues to outperform other regions, likely increasing its relative market share compared to Europe and the US again in 2022.

Organizational structure

Clariant is headquartered in Muttenz, Switzerland. In the 2022 financial year, Clariant's continuing operations comprised five business units: Industrial and Consumer Specialties, Catalysts, Oil and Mining Services, Functional Minerals, and Additives. In this Integrated Report 2022, the continuing operations are reported in three business areas: Care Chemicals (including Industrial and Consumer Specialties), Catalysis (including Catalysts), and Natural Resources (including Oil and Mining Services, Functional Minerals, and Additives). The Business Unit Pigments was divested on 3 January 2022.

In 2022, the organizational structure further comprised nine service units and eight corporate functions. The responsibilities of the Executive Committee included the financial and operational management of the Group.

Change in organizational and leadership structure

In June 2022, Clariant announced changes in its organizational and leadership structure. This new structure aims at reducing complexity, speeding up decision-making, increasing customer proximity, strengthening governance and diversity, and increasing accountability. By making these changes, Clariant intends to support cultural transformation and the implementation of the purpose-led growth strategy. The reorganization does not impact the financial reporting until 1 January 2023.

Business units

Effective 1 January 2023, Clariant reduces the number of business units from five to three.

- Business Unit Catalysts comprises the former Business Unit Catalysts and the former Business Line Biofuels & Derivatives
- Business Unit Adsorbents & Additives comprises the former Business Units Functional Minerals and Additives
- Business Unit Care Chemicals comprises the former Business Units Industrial and Consumer Specialties and Oil and Mining Services

The three new business units are now based on the nature of the business, similar market and industry dynamics, technology and applications used, as well as a comparable customer approach. As of 1 January 2023, Clariant's external reporting will reflect this new business unit structure.

Each business unit is headed by a President. In order to increase customer proximity, Clariant will locate these Business Presidents in the regions with the highest growth potential for the respective business:

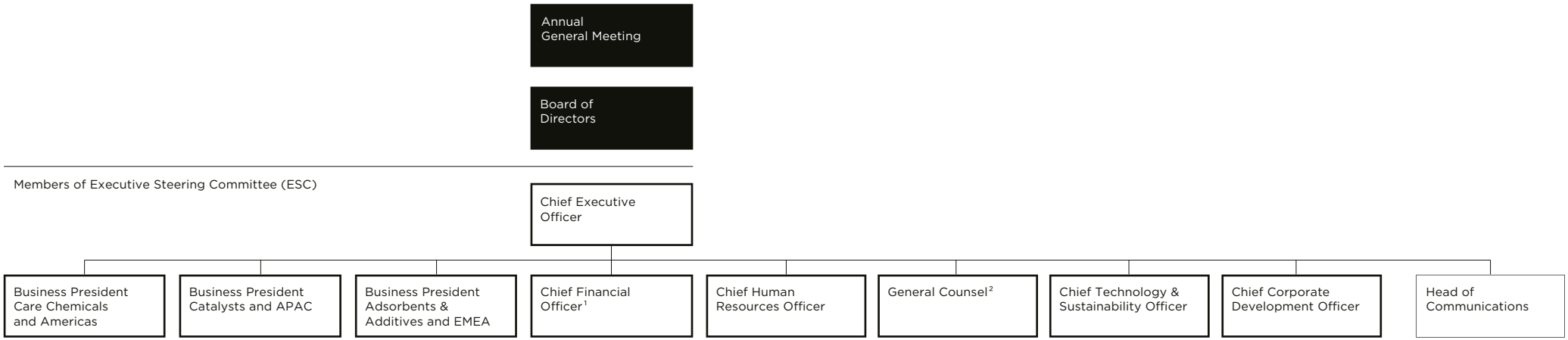
- Care Chemicals in the Americas
- Catalysts in the Asia-Pacific region
- Adsorbents & Additives in the EMEA region

Consequently, the Business Presidents also take over the role of Presidents of the respective regions.

Executive Steering Committee and Executive Leadership Team

With this organizational change, Clariant reduces the hierarchical layers and brings the business units closer to the company's management by creating direct reporting lines from the newly appointed Business Presidents to the CEO. The newly formed

005 **CLARIANT ORGANIZATIONAL STRUCTURE**



■ Members of the Executive Leadership Team (ELT) □ Not part of the ELT

[1] The Head of Internal Audit reports directly to the CFO, with a dotted line to the CEO and the Chairperson of the Audit Committee.
[2] The Head of Group Compliance reports directly to the General Counsel, with a dotted line to the CEO and the Chairperson of the Audit Committee.

Executive Steering Committee includes the CEO, the CFO, and the Business Presidents.

The Executive Steering Committee, together with the Chief Human Resources Officer, the General Counsel, the Chief Corporate Development Officer, and the Chief Technology & Sustainability Officer, form the Executive Leadership Team. All key functions are combined in this team to facilitate strategic decision-making. Clariant intends to further increase the speed and strength of its governance and increase accountability.

In addition, some functions changed their reporting lines. Among others, Compliance and Corporate Audit will uphold additional dotted reporting lines to the CEO and to the Chairman of the Audit Committee. Thus, Clariant further strengthened its culture, which is built on integrity and compliance.

Please refer to the → Corporate Governance Report for information on the updated bylaws.

Corporate Governance Report
The Corporate Governance Report provides detailed information on the governance aspects underlying Clariant's business, in addition to information on the organizational structure.
→ Read more about Corporate Governance

Core processes for value creation

The processes Idea to Market, Market to Customer, and Customer to Cash are essential to create value for all stakeholders. Turning customer needs into innovative and sustainable solutions is what forms the core of Clariant's business model.

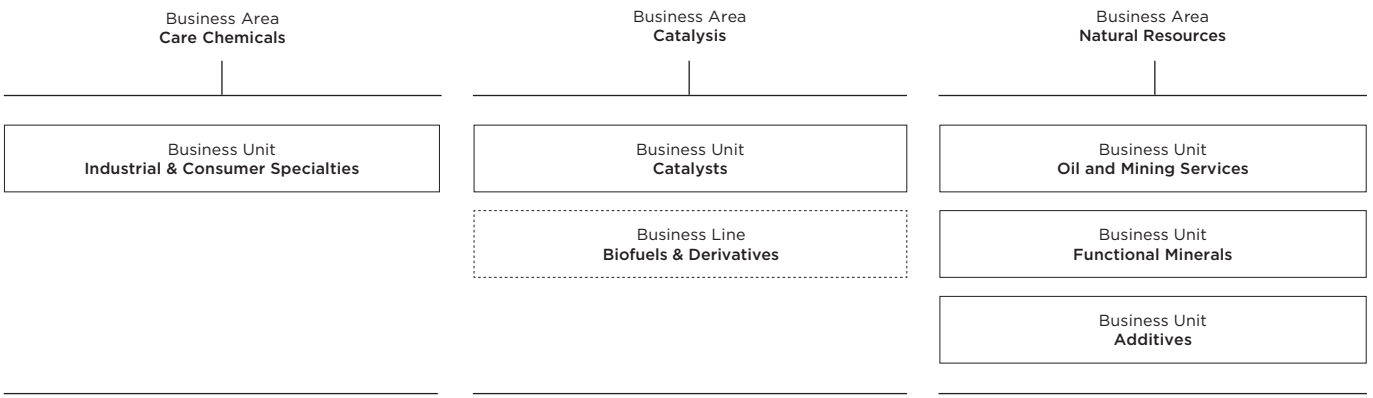
Idea to Market

Clariant believes that continuously investing in innovation is key to future success – even in times of economic uncertainty. The company's innovation power makes it possible to deliver products with an outstanding technical performance. Innovative chemistry is one of the four dimensions of the company's purpose-led strategy. Leveraging the deep technical knowledge and resources of Clariant's Research & Development as well as the systematic innovation approach, Clariant develops high-performing solutions to satisfy unmet customer needs, while adding value with sustainability. To find these solutions, Clariant places a particular emphasis on the understanding of market and customer needs through collaboration and the leveraging of digitalization throughout the innovation process.

Market developments characterized by sustainability

Sustainability, another of Clariant's four key dimensions, becomes more and more important for the entire value chain. With end customers attaching increasing importance to product ingredients and sustainability performance, these topics are critical for

006 **BUSINESS AREAS**

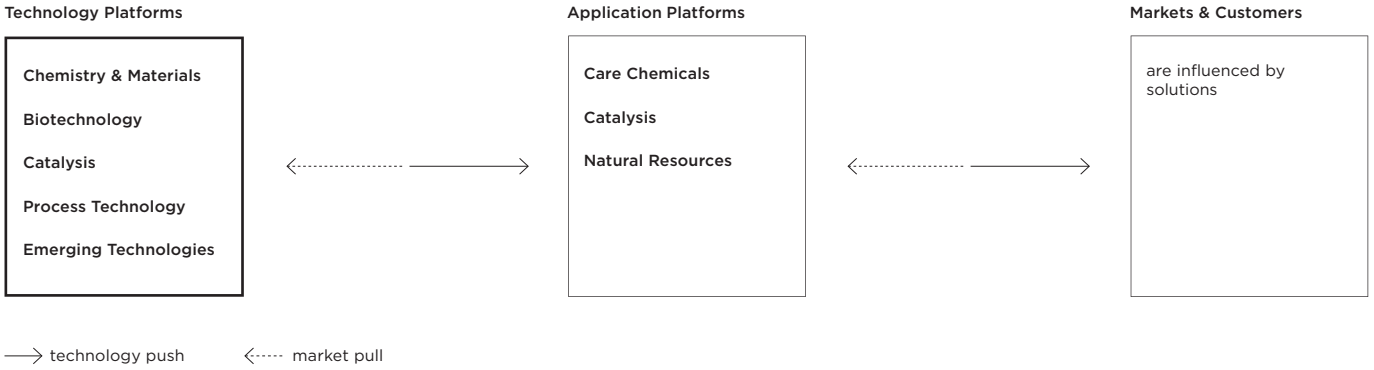


The Business Area Care Chemicals has a clear focus on highly attractive, high-margin, and low-cyclicality segments with c. 2/3 of the business being consumer-facing in Consumer Care and Industrial Applications.

The Business Area Catalysis contributes significantly to value creation in our customers' operations, ensuring that finite raw materials and energy are used efficiently and, in turn, ensuring the quality and yield of processes.

The Business Area Natural Resources adds value through enhanced sustainability benefits and by enabling circularity, supporting recycling solutions, and reducing customers' dependency on fossil resources, thereby helping them to achieve a lower carbon footprint.

007 **CLARIANT INNOVATION CHAIN**



Clariant's customers as well, particularly in customer-facing market segments, such as the electrical and electronics, cosmetics, and home care segments. Regulatory requirements like the European Union's Green Deal or similar developments in other regions also highlight the fact that sustainability includes both operations as well as the transformation of the product portfolio. To achieve this, a sustainability assessment (Portfolio Value Program) is closely interlinked with Clariant's innovation process Idea to market.

Due to its systematic link between sustainability and innovation, Clariant is in an excellent position to benefit from this ongoing shift. The business areas have launched new products in 2022 that combine excellent performance with clear sustainability benefits, representing both an improved footprint as well as handprint.

New business opportunities through circularity

Enhancing circularity is one important dimension of adding value through sustainability. Companies in the chemical sector need to find new ways to close material loops by reusing products at the end of their life cycle. This offers new business opportunities for Clariant, as the company has been developing new product portfolios and new business models systematically for many years, using redirected waste streams for new applications.

Digitalization: step-changing R&D and innovation processes

With a strong focus on sustainability-driven innovation, digital tools are powerful enablers of Clariant's innovation strategy. Digitalization of R&D and innovation processes enables significant gains in efficiency, increasing speed and optimizing resource consumption. Data capturing, advanced data analytics, computational science, and the setup of the required IT infrastructure, combined with lab automation and high-throughput experimentation (HTE) capabilities, allow Clariant to shorten its innovation cycles and reduce the time to market. In addition, Clariant uses digital tools to develop new digital business models and explore new ways to collaborate with customers. Digital collaboration solutions have become even more important due to the COVID-19 pandemic.

Strong technology capabilities power Clariant's research

Clariant's innovation activities are based on a strong network of more than 785 full-time equivalents. R&D is performed in three contract R&D centers in China, Germany, and India, where several BUs are represented. Dedicated centers with a focus on biotechnology, high-throughput experimentation for catalysts and consumer care innovation complement the global network of Clariant's R&D Centers. The R&D resources are allocated to and managed by each business unit to ensure maximum market and customer alignment. For certain technologies, which cut across several business units, the R&D is housed in the unit with the greatest need serving the other units in a contract R&D service model. The company structures its research activities along five Technology Platforms → Figure 007, which collaborate closely with the business units to provide them with crucial technology expertise and innovative solutions:

- **Chemistry & Materials:** This Technology Platform focuses on new chemistries and formulations that meet emerging value propositions of Clariant's customers, while providing a clear sustainability benefit. Hosted within Business Unit Industrial & Consumer Specialties, this platform serves all business units to leverage synergies.
- **Biotechnology:** This Technology Platform focuses on the valorization of biomass toward biofuels and biobased chemicals by supporting the Business Line Biofuels & Derivatives in further developing the EcoTain®-awarded sunliquid® technology.
- **Catalysis:** This Technology Platform develops innovative catalysts to increase the resource and energy efficiency of chemical processes and to reduce their environmental footprint. One specific focus of the Technology Platform lies in using greenhouse gases such as carbon dioxide as feedstock to be converted into valuable chemicals, e.g., methane and methanol.
- **Process Technology:** This Technology Platform focuses on process development and scale-up to commercial scale production by providing a comprehensive chemical engineering toolbox with the aim to provide safer and more sustainable high-performing manufacturing processes. Among others, the Data Science team makes use of advanced data analytics and artificial intelligence to further boost process performance.
- **Emerging Technologies:** This newly implemented Technology Platform focuses on emerging technology trends with high relevance for Clariant's business units and with high transformational impact. Current activities include high-throughput experimentation, digital formulation technologies, as well as cutting-edge analytical methodologies, to widen the solution space and accelerate time to market.

Centralized functions to support innovation, growth, and the sustainability transformation of the company

Group Engineering, part of the Service Unit Group Operational Excellence (GOE), is responsible for managing and executing major and complex investment projects.

The Sustainability Transformation department is responsible for integrating sustainability in the company's products and processes. The department aligns innovation management practices with Clariant's sustainability programs to enhance its transformation roadmap.

Sustainability Transformation collaborates closely with Global Product Stewardship, a function responsible for monitoring all global regulatory developments, evaluating the impact and risk for Clariant's portfolio, and ensuring compliance of Clariant's products with regulatory requirements. The close interaction between Sustainability Transformation and Global Product Stewardship allows joint action in advocacy and regulatory affairs to tackle the wave of new legislation to be expected from the Green Deal in Europe and other regions likely following. Global Product Stewardship and Sustainability Transformation are involved early on in the innovation process to assure from the

beginning that the product developed will be safe and sustainable by design.

By securing Clariant's patents and trademarks, Global Intellectual Property Management leverages the value creation from innovative products for Clariant.

Collaborations for innovation

To drive its innovation strategy, Clariant strongly relies on collaboration across functions and businesses, as well as with external partners. The company's Open Innovation initiative identifies collaboration partners in the private sector as well as at universities and other research institutions to source creative ideas.

Complementing its strong ties to different partner networks, Clariant strives to collaborate closely with partners in the supplier industry to develop solutions that are more sustainable when considering the entire value chain. Thus, the company's innovation team is collaborating closely with Procurement to create opportunities for joint supplier innovation.

Market to Customer

Clariant's success relies on its ability to understand customer needs and market trends along the entire value chain, to develop solutions that address those needs, and to capture the value created. To foster this ability, the company constantly builds and adapts its marketing and sales capabilities, optimizes its pricing, and continues to strengthen its customer relationships, supported by digitalization.

A portfolio continuously focused on sustainability contributions

Following the trends from recent years, 2022 introduced a stricter regulatory landscape, along with customers' growing interest in sustainable products. Aligned with its purpose, Clariant decided to raise its sustainability ambitions even more. This year, the Portfolio Value Program (PVP) methodology, which is Clariant's way of assessing the sustainability profile of the project and product portfolio, was updated, anticipating customers' requests, upcoming legislation, and trends. Based on 39 sustainability criteria covering all life cycle phases, the assessment allows Clariant to design and promote new solutions with less footprint and a higher handprint. PVP also identifies products with an outstanding sustainability profile for recognition with the EcoTain® label. In 2022, 6 new products were awarded the EcoTain® label for an outstanding sustainability profile.

Clariant has been a front-runner in assessing the sustainability of chemical products holistically across the life cycle. Due to the rapidly evolving stakeholder expectations around sustainability, Clariant updated its PVP in 2022. The company is actively assisting the World Business Council for Sustainable Development (WBCSD) in updating its framework for portfolio sustainability assessments, serving as a member of the working group developing the methodological update based on current and upcoming initiatives. With PVP, Clariant can provide more accurate and credible information about the performance of the portfolio across all life cycle phases, which allows customers to have a deeper understanding of the effects, releases, and emissions of Clariant's products and services, enabling the company to move toward zero pollution in air, water, soil, and biota.

Standing out in the market through specialized solutions

To meet the evolving ecological standards and its customers' quality expectations, the company aims toward ever increasing innovation and specialization, despite the continuing commoditization, consolidation, and integration in the chemicals market. As a specialty chemicals company, Clariant is working to maintain and strengthen its market position by delivering services tailored to customer needs.

Customer satisfaction survey

Clariant conducts customer satisfaction surveys to gain insights into how its customers perceive the company's operational, commercial, and innovation performance. The last survey in 2020 revealed improved values of the Customer Satisfaction Index, the Customer Loyalty Index, and in particular the Net Promoter Score (NPS) compared to 2018. The next survey will be conducted in 2023.

New organizational setup to challenge commercial performance

Customer centricity is important to stay ahead of the competition. That is why Clariant keeps challenging its commercial performance and reinventing its portfolios. Clariant's Commercial Excellence approach, with its deep functional expertise, facilitates dialogue with current and prospective customers to improve commercial strategies, customer engagement, as well as sales and marketing operations. It concentrates on three areas that are central to all business units: Sales Force Effectiveness, Pricing Excellence, and Digital Solutions.

— **Sales Force Effectiveness for improved marketing performance:** Sales Force Effectiveness aims to increase sales performance and holistically assesses sales-related areas to identify levers for targeted improvements. In addition to its focus on improving sales force productivity, the approach includes in-depth analyses of market gaps and of the performance potential for key market segments. This provides the basis for growth analytics, including lead identifications. When analyzing short- and long-term market trends, Clariant always follows a triangulation approach, considering various sources and looking at a situation from different angles to avoid bias. Clariant continues to adjust and to differentiate customer profile development to ensure that profiles stay relevant. Observing the customer experience reveals both apparent and hidden needs of different roles at different points in time within the decision cycle and allows Clariant to tailor the value proposition accordingly.

— **Mutually beneficial pricing through Pricing Excellence:** By determining mutually beneficial price points, Clariant transforms value created for customers into profitable growth for the company. Value calculators that can quantify and visualize the financial benefits of using Clariant's products as compared to the next best competing alternative are helpful to demonstrate a product's value to customers. Clariant's Pricing Excellence identifies intrinsic margin potential and supports the implementation of pricing, based on data lake-driven analyses. New digital pricing tools integrate both internal and external sources, such as weather influences and commodity stock prices, and accurately execute the value calculations for customers and for Clariant.
— **Advancing customer relationships with digital solutions:** Clariant's commercial activities are driven by digitalization. Creating effective digital solutions starts with understanding each touchpoint along the customer journey, systematically investigating potential digital opportunities for go-to-market approaches. Clariant's Customer Relationship Management (CRM) system continues to be developed as a core digital solution, enabling effective customer relationships and performance management.

Customer to Cash

Clariant continuously optimizes its operational chain. The company fosters process efficiency using digitalization, improves CAPEX efficiency with so-called front-end loading, and responds to customer needs and changes in market environments with agile approaches. Beyond that, Clariant strengthens its overall profitability with continuous cost savings in procurement with safe, functional operations and by further integrating sustainability into the value chain.

Connecting customers and operations with end-to-end supply chains

Clariant continues to build integrated end-to-end supply chains, connecting the commercial with the operational value chain. The company translates customer requirements into demand planning, using an agile mindset as well as digital solutions and technology, including machine learning, demand sensing, and advanced analytics.

Operational Excellence strongly anchored at every site

Launched back in 2009, Operational Excellence today is core to the DNA of every manufacturing site in Clariant. Through Lean Six Sigma and an evolving project portfolio, Clariant's Operational Excellence efforts continue to deliver safety, productivity, and quality improvement year on year through local Green Belts and Black Belts and global coordination and steering.

Digitalization for optimal processes

Digitalization optimizes process efficiency in various ways. Digital lean methods use computer-based optimization to go beyond manual improvements of a classical lean approach. Drawing from increased data availability, this allows for digitally steered processes with advanced controls, including in-time raw material delivery, improved plant throughput, system and employee scheduling, and energy use optimization.

Front-end loading for CAPEX efficiency

For CAPEX projects, Clariant has introduced a stringent front-end loading (FEL) stage-gate process. Starting with a critical review of the business case, the process builds on thorough reviews of a project's fundamentals before proceeding to the next stage. This avoids unnecessary spend on projects that may not be viable and fosters best possible design choices early in the process.

Well-positioned through agile approaches

Benefits for customers are the primary driver for improvements in the operational chain. To satisfy the customers' evolving expectations, Clariant keeps improving its agility. The company has fully adapted agile approaches like the SCRUM methodology, which are established through team trainings and a Black Belt curriculum. To offer optimal lead times, the company fine-tunes improvements based on feedback from users along the operational chain, including controllers, procurement managers, and production personnel.

Global supply chains under pressure due to COVID-19 and the war on Ukraine

While COVID-19 keeps challenging Clariant's supply chain management and demand planning, the war on Ukraine has added further significant risks in terms of energy and raw material availability, product delivery, and logistics performance at customer sites. This has led to targeted mitigation measures, such as investing in fuel flexibility to respond to possible shortages in natural gas availability in Europe. Moreover, flexibility and a global sourcing network that mitigates supply shortages allow Clariant to respond to these challenges quickly and effectively.

Coordinated procurement for cost efficiency

In 2022, 2 479 vendors delivered raw materials worth CHF 2.3 billion to Clariant's continuing operations. Given these figures, aligned and coordinated procurement activities are vital for overall cost competitiveness and related efficiency. Clariant keeps a structured value chain approach, combined with improved and digitally supported processes. Thus, Procurement contributed to ensure security of supplies at competitive costs to support all business units. Additional cost efficiency measures, supported by digital enablers, resulted in further sustainable cost savings, placing Procurement in the top quartile of its industry peers.

Operational safety: a key priority

A safe operational chain is of utmost importance for Clariant as a responsible employer. It is also necessary to minimize disruptions in production. Thus, Clariant has defined a safety target of zero accidents in its operations. In 2022, the lost-time accident rate (LTAR) rose from 0.16 to 0.24 days lost per 200 000 hours of work. Because of the COVID-19 pandemic, Clariant established additional security and safety concepts to guarantee the health and safety of employees at all times.

Sustainable operations for sustainable success

Sustainability is a key priority for Clariant's own operations, but also across its entire value chain. The company continues to increase its renewable electricity share, a cost-effective measure with positive environmental impacts. Clariant also keeps rethinking its operations in the pursuit of climate-neutral production. For instance, the design of plant construction aims at optimal energy consumption. Driven by customer demand for sustainable chemistry, Clariant considers carbon footprint and origin when sourcing raw materials. In cooperation with the business units, Clariant's Procurement continuously seeks solutions for alternative materials.

A PURPOSE-LED STRATEGY

Clariant aims to move toward top-quartile results in specialty chemicals in terms of growth, profitability, sustainability, and people. Based on its purpose, »Greater chemistry – between people and planet,« Clariant unveiled a purpose-led strategy with four dimensions, accompanied by new financial and non-financial targets. The strategy reflects Clariant's ambition to create value with innovative chemistry and a sustainability focus, putting customers, employees, and the planet at the center of all activities.

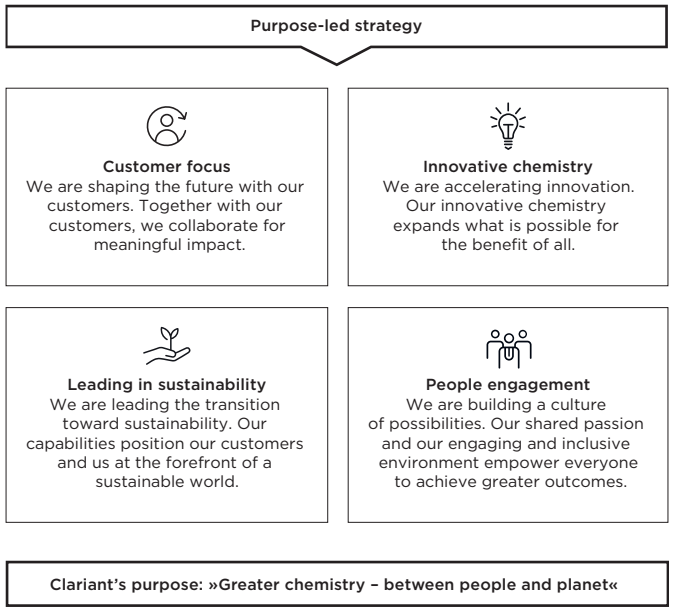
Additionally, in October 2022, the former company claim and brand motto »what is precious to you?« was changed. For 10 years, this question had represented the Clariant brand. The new claim is »Greater chemistry,« a short version of the purpose statement and an answer to the former claim. With this change, the purpose has also moved to the center of the Clariant brand and, moreover, will be embedded in all communications, thus significantly raising the level of clarity. However, the motto »what is precious to you?« was not simply replaced. Rather, the new claim is considered a logical consequence, a next step in the purpose journey, as it summarizes the answers that stakeholders and Clariant have found in response to this question. Clariant is clear about what it stands for and what customers, partners, employees, and the public can expect. The benchmark is always the same: Greater chemistry.

In short, the new claim was developed to

- build a strong tie between the purpose and the Clariant brand
- make the change visible across all touchpoints
- make the purpose easy to use while safeguarding the strength and meaning of the purpose statement

The purpose and the new claim completely replace the previous brand positioning comprising Clariant´s former mission, vision, former brand values, and the concept of appreciation. Appreciation has become part of Clariant's DNA and therefore no longer needs to be explicitly addressed as a brand core.

008 **CLARIANT'S NEW PURPOSE-LED STRATEGY**



Strategic dimensions

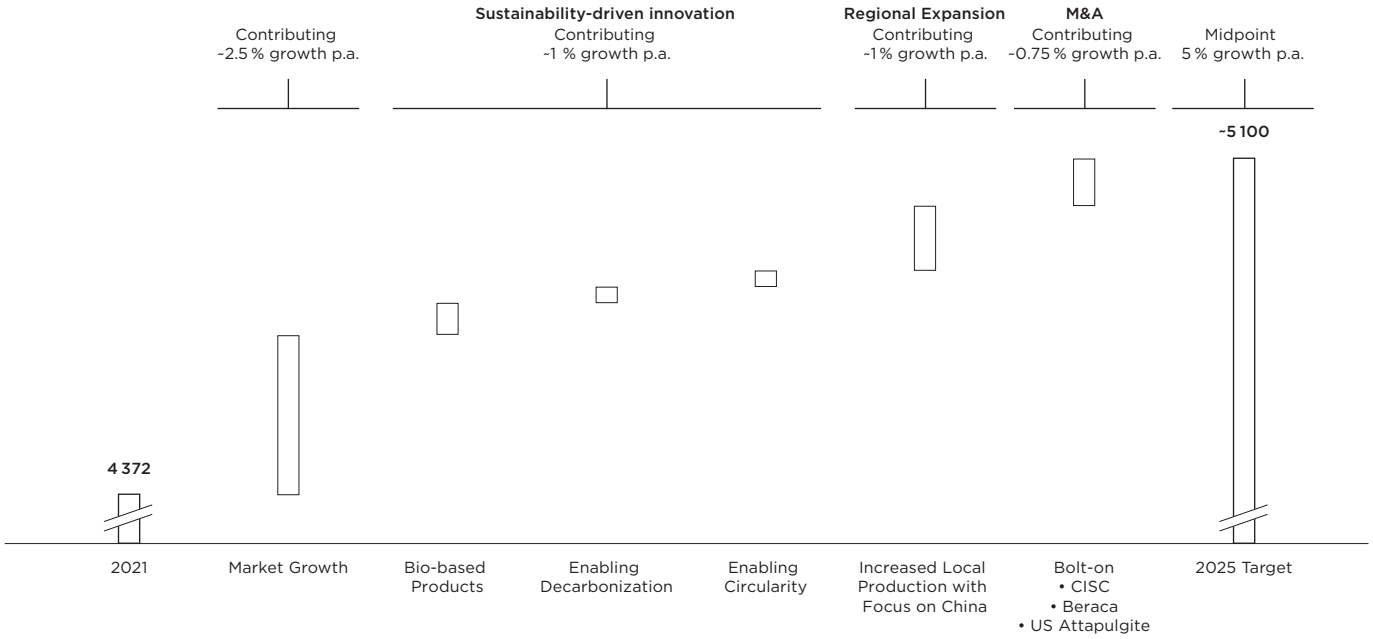
A strategy to reflect Clariant's purpose

The world is changing quickly. In addition to the ongoing challenges of the COVID-19 pandemic and the related economic issues, such as supply chain disruptions, the effects of climate change are becoming more and more tangible. Thus, climate change and carbon footprint are important priorities for Clariant and the entire industry. Clariant's innovation power, customer proximity, and its uniquely talented and experienced people enable the Group to deliver products with an outstanding technical and sustainability performance. Against this background, Clariant unveiled its purpose, »Greater chemistry – between people and planet.« This purpose leads Clariant's new strategy, which →Figure 008 depicts.

009 **EXAMPLES OF STAKEHOLDER ENGAGEMENT**

Stakeholder Group	Examples of engagement formats	Key needs and concerns
Customers	— 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 — Webinars and customer portal	— On time, in full: quality, reliability of supply, prices — Innovative solutions — Achieving sustainability goals — Circular economy
Employees	— Personal dialogues — Intranet, Yammer, newsletters, town halls — Employee engagement survey — Performance management cycle — mySuccess platform — Awards landscape (special recognition, appreciation, badges) — Integrity Line — Global Learning Catalogue — Focus Group Discussions — Evaluation of training and development programs — Employee assistance programs (with local adaptations) — Diversity, Equity, and Inclusion communities and focus groups — Interactions on social media and employer review sites	— Wages, salaries, and benefits — Competence building — Leadership skills — Occupational health, safety, and well-being — Integrity — Diversity, Equity, and Inclusion — Digitalization, simplification, and harmonization — Work-setup and configuration — Clariant purpose, culture, and values — Attrition — Cost of living
Shareholders	— Integrated Report — Annual General Meeting — Quarterly Results – including conference call and webcast — Financial Media Releases — Roadshows — Participation at conferences	— Value creation — Growth and capital returns — Contribution to environmental, social, and governance improvements — Access to up-to-date public financial information — Insight into Clariant's outlook
Environment	— Corporate culture that prioritizes environmental stewardship — Innovative and sustainable products and offerings addressing sustainability challenges — Environmental management tools and programs — Low-Carbon Emitting Technologies in the Chemical Industry initiative of the World Economic forum — EcoCircle collaborations fostering transition to a circular plastics economy — Alliance to End Plastic Waste (AEPW) — »Driving change in a changing world« videos on YouTube	— Minimizing impacts on the environment — Safeguarding natural resources — Reducing environmental footprint and handprint of customers
Suppliers	— Together for Sustainability (TfS) initiative — Supplier performance assessment reviews — Regularly communicating updated standard information package — Yearly procurement events — EcoTain® and other partnerships — Open Innovation initiative	— Prices, payment practices — Lead time — Supplier Code of Ethics — Safety — Circular economy — Digitalization
Policymakers and Civil Society	— Engagement in trade associations, multistakeholder alliances, sectoral associations, and scientific and research associations — Community dialogues — Dialogue with policymakers and related stakeholders (industry alliances, NGOs, academia) on public policies — Preparation of Position Papers and communication materials — Participation at conferences and events	— Governance and compliance — Sustainable chemistry — Circular economy — Bio-economy — Climate change and energy transition

010 **ATTRACTIVE SALES GROWTH TRAJECTORY SUPPORTED BY MULTIPLE LEVERS** IN CHF M



Four strategic dimensions

The purpose-led strategy replaces Clariant's five-pillar strategy. It establishes four strategic dimensions:

— **Customer focus:** Customer centricity is an important differentiator to stay ahead of the competition. With a series of divestments since 2019 and the closing of the Pigments business sale on 3 January 2022, Clariant has become more simplified and focused with a true specialty chemicals portfolio. This focus allows even more customer centricity in the three business areas. Clariant continues to become more agile, delivering tailor-made solutions to satisfy customers' evolving expectations, which mirror their enthusiasm. To understand customer needs and develop corresponding solutions, Clariant focuses on building strong customer relationships.

— **Innovative chemistry:** At Clariant, chemistry stands for unique solutions that redefine what conventional wisdom considers to be possible. In line with its focus on ever increasing innovation and specialization, Clariant has an innovation pipeline of high-performance solutions throughout its three business areas. These solutions are strongly linked to customer-driven sustainability requirements. Continuously investing in Research & Development – even in times of economic uncertainty – is crucial for future success and for business growth above market growth.

— **Leading in sustainability**: Customers and stakeholders around the globe are demanding sustainable solutions while moving away from products and investments that have a negative sustainability footprint. Legislation around the globe to address sustainability challenges is further driving the transformation of entire value chains. Clariant is in an excellent position to benefit from this ongoing shift. Innovation and sustainability are systematically linked at Clariant. The company continues to promote new solutions that are more sustainable. In addition, sustainability is a key priority for Clariant's own operations and the entire value chain in terms of raw materials, the use of renewable energy, and climate-neutral production.

— **People engagement:** Appreciation for people lies at the core of Clariant's holistic approach to value creation. A culture of dialogue and mutual respect, dedication to sustainable, innovative technologies, and continuous transparency and integrity are key characteristics of Clariant's stakeholder engagement. The company values customer relationships and ongoing dialogue with suppliers, shareholders, and public policy platforms, as → Figure 009 shows. Clariant is particularly committed to engaging with employees at all levels. Through the lens of people centricity and by making the well-being of employees a priority, Clariant fosters a culture where people feel valued. By actively promoting diversity, inclusiveness, mutual appreciation, empowerment, and safety at work, Clariant creates an environment where everyone can contribute and develop their talents to their fullest potential. The excellent work and commitment of Clariant's global team is a key competitive factor.

Financial and non-financial targets

New medium-term targets to guide Clariant's value creation

The four dimensions of the purpose-led strategy are reflected in Clariant's new medium-term financial and non-financial targets. They reflect Clariant's ambition to achieve top-quartile results in specialty chemicals in terms of growth, profitability, sustainability, and people.

By 2025, Clariant is aiming to grow its top line with a 4–6% compound annual growth rate (CAGR) and to increase its EBITDA margin to 19–21%. In addition, Clariant has introduced a cash conversion target: The company is planning to reach a free cash flow (FCF) conversion ratio of around 40% by 2025 – a figure that Clariant defines as cash flow from operations minus CAPEX, divided by EBITDA.

FINANCIAL TARGETS BY 2025

	Clariant Group
Sales growth (CAGR) (%)	4-6
EBITDA margin ambition (%)	19-21
FCF conversion expectation (%)[1]	~40

[1] Defined as (cash generated from operating activities – CAPEX)/EBITDA

Clariant has also set itself science-based climate targets: By 2030, the company plans to reduce its Scope 1 & 2 emissions by 40% and its Scope 3 (cat. 1) emissions by 14%. Finally, Clariant aims to be in the top quartile in employee engagement in its industry.

NON-FINANCIAL TARGETS BY 2030

	Clariant Group
Reduction in Scope 1 & 2 emissions (%)	40
Reduction in Scope 3 (cat. 1) emissions (%)	14
Employee Net Promoter Score (eNPS)	Top quartile

Levers for sales growth

Clariant's plan to reach an annual midpoint sales growth of 5% on average by 2025 is based on four types of growth levers, as →Figure 010 depicts:

- 2.5% market growth of current market segments with actual geographic footprint;
- 1% growth above the market from sustainability-driven innovation, especially from products that are bio-based, that enable decarbonization, or that enable circularity;
- 1% growth from regional expansion through increased local production, with a focus on China; and

Q&A

Judith Bischof
General Counsel
Member of the Executive Leadership Team

As General Counsel, you are part of the newly formed ELT. How have the first few months in the ELT been, and what specific perspective do you bring to the table in ELT discussions?
The Board of Directors and our CEO ensured that the composition of our newly formed ELT is well balanced in terms of background and experience. We have therefore been able to work together constructively and efficiently right from the beginning. My specific perspective lies in establishing functional compliance organizations and improving effective and business-oriented legal teams. Furthermore, my experience as part of executive committees in two different industries and as board member of a publicly listed company gives me the opportunity to analyze issues from different angles. That also helps tremendously in developing suitable solutions for Clariant.

In 2022, the ELT – together with the GMT and a group of employees from different regions – defined a set of new values. As General Counsel, the value »act with integrity« is probably close to your heart. What is required to bring this value to life?
First of all, we need to make sure that the ELT and the entire management team lead by example. The tone at the top is one of the most important factors to ensure that everyone acts with integrity. Secondly, we will continue to encourage our employees to speak up when they see something that violates our code of ethics or breaks the law. And thirdly, we will not tolerate any violations of our code of ethics, and we will respond to them with appropriate measures. These three key elements will support our growth strategy, as our employees will feel more empowered. Integrity is the foundation of everything we do.

What are the most important topics you will drive within Clariant in the upcoming months?
Clariant is on a clear growth path. And many of these growth initiatives require legal assistance, for instance, in the fields of intellectual property, projects with customers and suppliers, and M&A activities. We are currently implementing a new regional setup of our legal teams so that we support the growth initiatives in the best way possible. In the legal, IP, and compliance organization, we will further improve and digitalize internal processes to become even more efficient and business-oriented than we are already now.

— 0.75% growth from M&A activities, in particular the acquisition of Beraca in Brazil, CISC (the joint venture with India Glycols), and US Attapulgite.

Clariant's high-quality core portfolio operates across diverse, growing end markets. That is why it is more resilient – and less volatile – than Clariant's pretransformation portfolio. On this basis, Clariant is well set to grow its business in excess of the expected average annual market growth of approximately 2.5% and to increase its operating leverage. The focused allocation of capital and resources will further amplify Clariant's growth.

Sustainability-driven innovation raises the average annual growth by approximately 1%. Clariant focuses on bio-based products and solutions that enable decarbonization and circularity, including the EcoTain® product range.

Regional expansion is another important growth driver for Clariant – with China as the main growth region. By allocating approximately 35% of its growth capital expenditure (CAPEX) to China, the company expects its sales share to grow to around 14% by 2025 versus the current 11% contribution. In total, Clariant anticipates regional expansion to contribute around 1% additional average annual sales growth.

Clariant is also well prepared for bolt-on M&A transactions to close product, market, and technology gaps. The recent transactions in Care Chemicals – CISC, the joint venture with India Glycols, Beraca in Brazil, and the acquisition of BASF's US Attapulgite business assets in Functional Minerals – reflect Clariant's successful adherence to these criteria. These transactions will positively impact the top line with a combined sales contribution of 0.75% to average annual growth.

Improving efficiency for an increased EBITDA margin

In terms of profitability, Clariant's ambition is to take the Group EBITDA margin corridor to a range of 19% to 21% by 2025. This margin improvement will be leveraged by around two-thirds from sales growth while efficiency improvements will contribute by approximately one-third, as → Figure 011 shows.

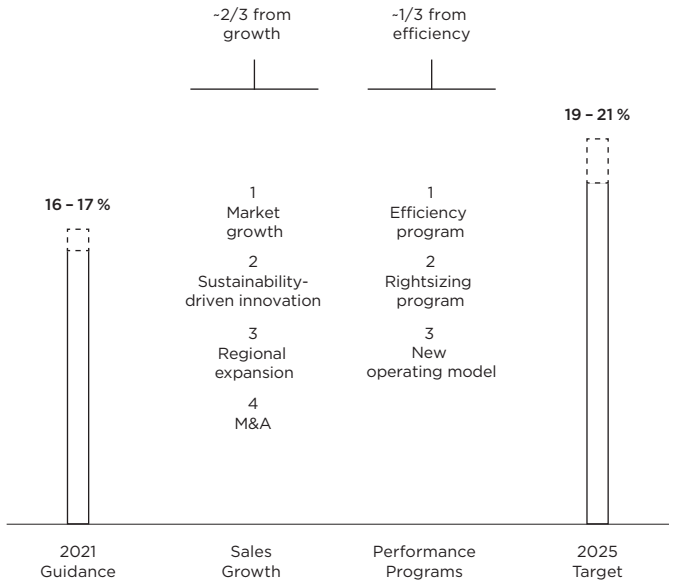
Clariant has increased the original core cost savings target of CHF 110 million by 2025 to CHF 160 million due to the implementation of the new operating model. Thus far, savings of CHF 85 million have been realized from the efficiency and rightsizing measures as well as initial savings related to the new operating model. The implementation of the new operating model is expected to contribute additional savings of CHF 50 million by 2025 as the result of the simplified organizational and leadership structure as well as non-full time equivalent savings.

Improving FCF conversion with capital and cost discipline

Clariant is strongly committed to capital and cost discipline and expects free cash flow conversion – defined as cash generated from operating activities minus CAPEX, divided by EBITDA – of around 40% toward 2025.

Capital expenditure (CAPEX) in the upcoming year should be approximately CHF 280 million due to the postponement of projects into 2023 and continued growth investments. More than half of this CAPEX will be used for growth: Clariant will continue to invest in attractive businesses such as Care Chemicals and Additives, and in growth regions like China. Clariant will also step up investments in sustainability measures, especially to reduce greenhouse gas emissions. Toward 2025, CAPEX is expected to normalize in the range of CHF 280 million to CHF 320 million per year. Together with Clariant's profitable growth, the reduction in CAPEX will result in a significant improvement in FCF conversion and a continued improvement in ROIC.

011 **MEASURES TO DRIVE EBITDA MARGIN[1] RANGE TO 19-21%**



[1] Continuing operations

Non-financial targets to reflect emission reductions and employee engagement

Clariant is a leader in sustainability, so setting ambitious non-financial targets for itself is only a logical next step. The 2030 non-financial targets reflect Clariant's purpose-driven strategy and its commitment to people and planet. Clariant plans to reduce Scope 1 & 2 emissions by 40% and Scope 3 (cat. 1) emissions by 14%. Based on latest climate science, the Science-Based Targets initiative (SBTi) considers these goals to be in line with the necessary steps to meet the targets of the Paris Agreement. In addition, Clariant aims to become a top-quartile company in terms of employee engagement, using this target as a benchmark for measuring its ambition to become the employer of choice in its industry.

Strategic implications at the business area and regional level

All three business areas have strong market positions and the ability to deliver growth. Clariant focuses on bringing all core businesses to their full potential. The company will follow a differentiated growth strategy and invest in its most attractive businesses and market segments.

The regrouped regional structure, which is based on the four regions APAC (Asia-Pacific), EMEA (Europe, Middle East, and Africa), LATAM (Latin America), and NORAM (North America), is aligned with Clariant's strategic plans. Clariant plans to further develop its footprint and sales in NORAM and APAC, in particular in China.

Strategic Management Process

Clariant's Stategic Management Process (SMP) is conducted by the business units in collaboration with Corporate Planning & Strategy. The SMP ensures Group level and business unit strategies are connected and are updated together. Clariant refreshed its SMP in 2021.

The progress of the 2021 SMP was reviewed in 2022. Where necessary, adjustments were made to reflect the changing business environment. In particular, the strategy implementation was adapted to the new business unit and organization structure to enhance implementation and adjust accountability.

In some cases, target achievement was faster than originally forecast due to the strong post-COVID-19 recovery and sharply higher revenues due to a stronger pricing environment. Some targets were adjusted to reflect this good performance.

CONTRIBUTING TO THE SDGS

Clariant is committed to contributing to the Sustainable Development Goals (SDGs) of the United Nations. These 17 goals outline a clear path to a more sustainable future and offer key business opportunities for the company.

Sustainable development and market potential

The SDGs provide a global framework for the most urgent societal and environmental necessities. The goals are defined in everyday language and offer a well-defined set of actions for all stakeholders. They are at the heart of the United Nations 2030 Agenda for Sustainable Development.

The business community recognizes the SDGs as a powerful way to foster innovation and growth. According to the Business & Sustainable Development Commission's »Better Business, Better World« report, USD 12 trillion of additional market value could be generated by 2030 if the SDGs are achieved.

Clariant can contribute to the SDGs with its innovative and sustainable products and services, strong environmental management, and a commitment to respect and protect human rights across its own operations and the supply chain.

012 **CLARIANT'S PRIORITY SUSTAINABLE DEVELOPMENT GOALS**

Evaluating Clariant's impact on the SDGs

Clariant assessed both the positive and negative impacts of its products and services, operations, value chain, collaborations, and corporate citizenship activities to evaluate the impact of its business activities in relation to the 17 SDGs, including all 169 underlying targets and the corresponding indicators. All business units and several service units were involved in performing, reviewing, and validating this analysis.

While Clariant contributes in some respect to every SDG, six priority SDGs were identified. Four of these SDGs were paired, as their relevance to Clariant cannot be evaluated independently, as →Figure 012 describes.

- 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«
- SDG 17 »Partnerships for the Goals «

In addition to this list, certain business units also contribute to SDG 2 »Zero Hunger,« SDG 6 »Clean Water and Sanitation,« and SDG 15 »Life on Land.«

013 **EXAMPLES OF CLARIANT'S ACTIVITIES AND PRODUCTS CONTRIBUTING TO THE SDGs**

— New Volunteering Guideline
— Sustainable surfactants for dishwashing: First »all-in-one« for All-in-Ones: new surfactant Genapol® Complete checks all the boxes for automatic dishwashing tabs (clariant.com) Dispersing agent for sustainable pigment preparations
— Clariant's new Dispersogen® Flex 100: now the only choice for superior and sustainable pigment preparations
→ Nitrous oxide – catching an elusive villain
→ Tackling greenhouse gas emissions, one handprint at a time
→ Sustainable sourcing – protecting the skin by protecting the Amazon forest
→ Cupuaçu – naturally effective
→ Synergen® DRT – fields abuzz
→ CliMate – real data, real change

— First-time cellulosic ethanol production/licensing in Podari, Romania
— Launch of portfolio for purifying pyrolysis oil derived from mixed plastic waste (LINK Clariant unveils portfolio for purifying pyrolysis oil derived from mixed plastic waste)
→ OMD D3 Platform
— Portfolio Value Program 2.0
— Most Clariant products are designed for higher efficiency
— Clariant's target to reduce landfill
→ The company's initiative to increase the use of renewable materials
→ Collaboration in a German government-supported project for using waste from the paper industry for biofuels
→ Nitrous oxide – catching an elusive villain
→ Tackling greenhouse gas emissions, one handprint at a time
→ Sustainable sourcing – protecting the skin by protecting the Amazon forest
→ Ready for a second life
→ Can biomass waste improve manufacturing efficiencies and circularity?
→ Cupuaçu – naturally effective
→ Synergen® DRT – fields abuzz
→ CliMate – real data, real change

— 2030 science-based climate targets
— sunliquid® second-generation biofuel
— Natural drying replacing fossil-powered drying (Functional Minerals)
→ Commercialization of cellulosic ethanol at the Podari plant (Romania)
→ Grant for catalysis research
→ Nitrous oxide – catching an elusive villain
→ Tackling greenhouse gas emissions, one handprint at a time
→ CliMate – real data, real change

→ Global climate campaign (Free delivery of EnviCat® N_2O-S catalyst to nitric acid producers who do not yet use an N_2O abatement catalyst)
→ Launch of product carbon footprint (PCF) tool »CliMate«
→ Grant for catalysis research
→ Nitrous oxide – catching an elusive villain
→ Tackling greenhouse gas emissions, one handprint at a time
→ 800 volts under the driver's seat
→ Can biomass waste improve manufacturing efficiencies and circularity?
→ CliMate – real data, real change

— High-performing catalysts
— Contract R&D centers
→ Collaboration with ETH Zurich University regarding catalysis research
— Collaboration via industry platforms, e.g., the World Economic Forum's Low-Carbon Emitting Technologies (LCET) initiative
→ Nitrous oxide – catching an elusive villain
→ Tackling greenhouse gas emissions, one handprint at a time
→ Ready for a second life
→ 800 volts under the driver's seat
→ Synergen® DRT – fields abuzz

— SPOTS (Sustainable Palm Oil and Traceability with Sabah small producers) initative
— SPIRAL (Small Producer Inclusivity and Resilience Alliance)
— Round Table on Sustainable Palm Oil
— ASD (Action for Sustainable Derivatives)
→ Sustainable sourcing – protecting the skin by protecting the Amazon forest
→ Ready for a second life
→ Cupuaçu – naturally effective
→ CliMate – real data, real change

→ Read more in our Review on Performance, People, and Planet

Clariant's commitment to the SDGs shows in all aspects of the company's activities and policies. To enhance sustainable transformation, the company is executing two programs, »Sustainable Operations« and »Sustainability-Driven Portfolio Change.« Thus, the portfolio comprises a constantly rising number of sustainable products and services. As sustainability can be achieved only by joint efforts, the company is engaged in several collaborations and partnerships. Clariant also works in special initiatives, e.g., the EcoCircle and the Renewable Carbon Initiative. All business units have ambitious targets and work intensively on reducing water, waste, and air emissions, as Clariant is striving for 2030 science-based climate targets. Clariant shows social responsibility by engaging in corporate citizenship activities and supporting its employees volunteering in sustainable projects.

FEATURED STORY

CliMate – real data, real change

How a new tool developed by Clariant unleashes the potential of product carbon footprints.

Learn more

Q&A

Richard Haldimann
Chief Technology & Sustainability Officer
Member of the Executive Leadership Team

In the difficult macroeconomic environment, what role does sustainability play for a company like Clariant?

Despite the disruptions from COVID-19 and the war on Ukraine, the transition towards sustainability has accelerated. Broad policy measures are being implemented in major economies around the world. In the EU, we have the Green Deal. In the US, the IRA provides huge incentives for the reduction of greenhouse gas emissions and for the acceleration of new technologies that Clariant products enable. And in China, the 1+N policy system introduces measures to increase energy efficiency, accelerate the energy transition, and achieve carbon peak by 2030. So, all over the world, sustainability is rapidly becoming the license to operate. These trends provide a competitive advantage for frontrunners like Clariant. Also, having a sound sustainability program is becoming crucial for attracting top talent.

Can you illustrate how Clariant's sustainability strategy creates meaningful impact for customers and the world?

Many of our solutions help customers to come up with more sustainable products. Just think about our low-carbon surfactants, our catalysts that reduce greenhouse gas emissions in the production process of our customers, our DEPAL-based flame retardants which are critical for modern electrical vehicles, or our additives that foster circularity. And with CliMate, we provide carbon footprint information for many Clariant products, which helps to accelerate the transformation to low-carbon value chains. These efforts are being recognized in the industry: In 2022, our sustainable innovations received numerous awards. These included the ACC Sustainable Leadership award, several BSB Innovation Awards, the ICIS Innovation Award, but also the Sustainable Packaging Award for the Personal Care packaging concept »Design4Circularity« that resulted from an industry collaboration. In addition to providing sustainability benefits for our customers, we reduce our own footprint: By 2030, we will lower our CO_2 emissions by 40% compared to 2019.

Is Clariant on track to achieve these climate targets?

Yes, we are seeing good progress. In 2022, we implemented various projects to reduce our direct emissions, and we are switching to low-carbon or even climate-neutral raw materials while also supporting efforts to decarbonize entire value chains. In absolute terms, we reduced our Scope 1 & 2 emissions by 10% and our Scope 3 cat. 1 emissions by 5%, each compared to 2019. I think this is a great achievement in a year where the business grew by 24%. In other words, we are now really starting to see a decoupling of growth from our GHG emissions.

014 **EXAMPLES OF CORPORATE CITIZENSHIP ACTIVITIES**

- Solidarity with Ukraine
- War relief efforts – Clariant employees in Poland
- Introduction of one-day allowance for employee volunteering Group-wide
- Clariant litter collection/site cleanups – Germany and Poland
- Litter collection/beach cleanup – Taiwan
- Tree planting – Taiwan
- Collaboration with schools – Japan
- Blood donation drive – India

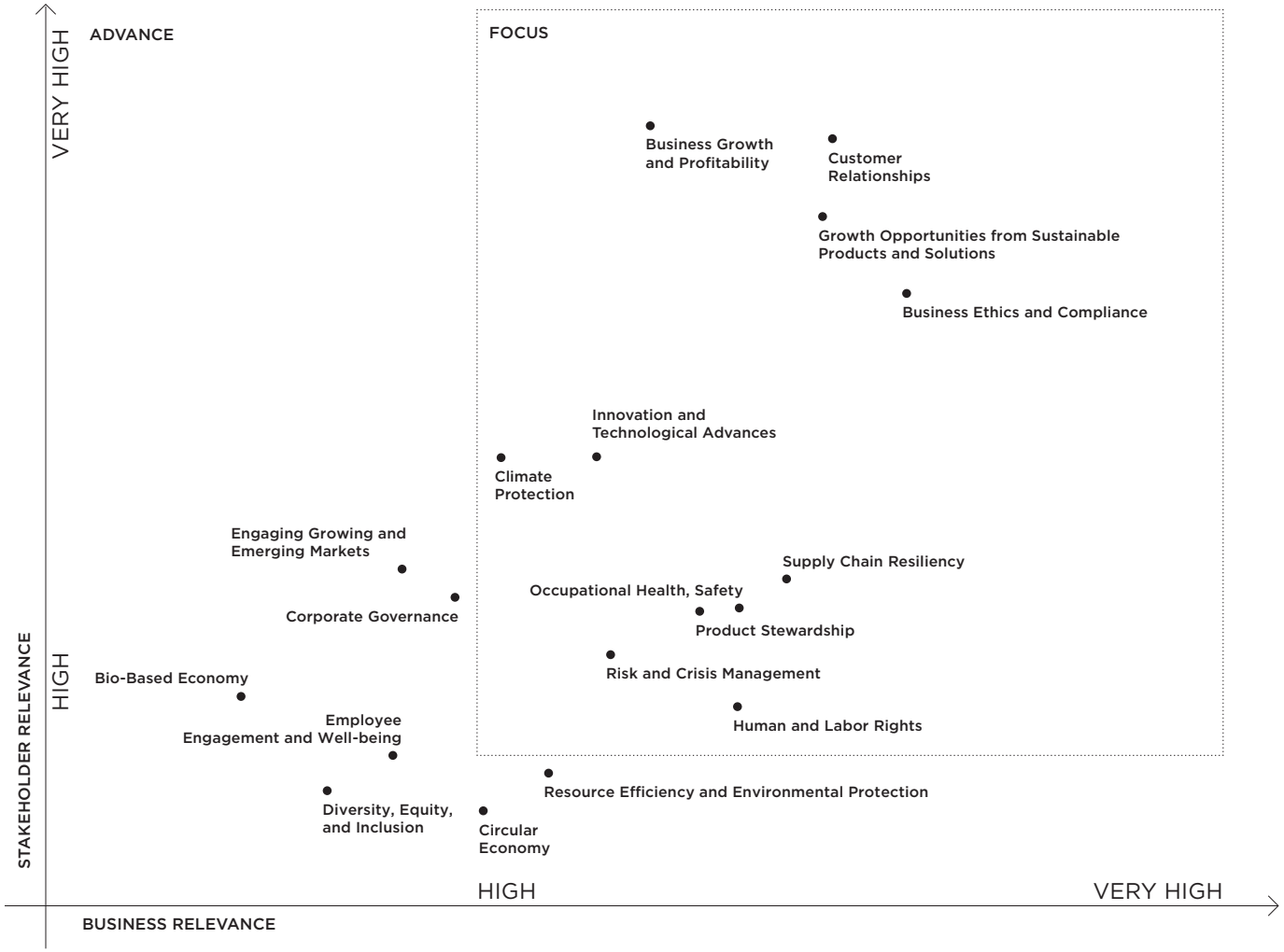
MATERIALITY ASSESSMENT

In line with the strategic dimensions, Clariant conducts comprehensive materiality assessments on a regular basis. Validated by external stakeholders, the company identifies the topics that have the greatest impact on the ability to create long-term value and prioritizes with respect to performance, people, and planet.

Materiality assessment

Clariant evaluates the materiality of economic, environmental, and social topics on an ongoing basis, drawing upon regular stakeholder discussions and market monitoring. In addition, Clariant conducts comprehensive materiality assessments to identify relevant issues and prioritize initiatives. After the last assessment in 2017, this process was conducted in 2021. The assessment will be carried out again in 2023.

015 **CLARIANT MATERIALITY MATRIX**



Drawing from recognized sources

The materiality assessment is based on two internationally recognized frameworks: first, the Integrated Reporting <IR> framework issued by the International Integrated Reporting Council (IIRC), which is now part of the Value Reporting Foundation (VRF), and second, the sustainability reporting standards of the Global Reporting Initiative (GRI). An external service provider specialized in materiality assessments facilitated the process.

Based on these frameworks and other sources, including the Sustainability Accounting Standards issued by the Sustainability Accounting Standards Board (SASB), the UN Global Compact, the SDGs, and topics covered by relevant ESG ratings and rankings, Clariant compiled an extensive list of economic, environmental, and social topics as a first step in the process. Topics that Clariant and its peers had identified in the past supplemented this catalogue such that the resulting list comprised 240 entries. Consolidating these entries resulted in 28 topics.

Feedback from two perspectives

As a second step in the process, 42 external stakeholders provided their views on the relevance of each topic, while 13 senior Clariant managers evaluated the importance of the issues for Clariant's value creation.

The external stakeholders were selected based on carefully defined criteria. The group included customers, nongovernmental organization representatives, sustainability experts, scientists, suppliers, and financial stakeholders.

Clariant senior managers evaluated the potential influence of the topics on strategy development and achievement, market positioning and growth opportunities, risk and reputation management, and compliance. Thus, Clariant implicitly accounted for impacts on sustainable development by considering these risks and opportunities.

The worldwide surveys of Management and stakeholders were conducted in English and Mandarin.

As the final step of the process, Clariant's senior management evaluated and validated the results of the assessment in a follow-up workshop.

Materiality Matrix

The Clariant Materiality Matrix in → Figure 015 summarizes the outcomes of the assessment. The horizontal axis depicts the relevance of the topics for Clariant's value creation, whereas the vertical axis shows the relevance of the topics to stakeholders. The topics fall into two categories: Advance and Focus. Focus topics are essential to Clariant's ability to create long-term value; Advance topics offer opportunities that will allow Clariant to better meet expectations.

Clariant is actively reviewing its priorities according to market trends and the company's own ambitions. With the advances in bio-economy and circularity within the product and project portfolio and also anticipating the advances in initiatives deriving from the European Green Deal, such as Safe and Sustainable-by-Design, which present a strong focus on these topics, Clariant decided to select them as part of its 1+5 Sustainability Focus Areas scheme. For this reason, the material topics mentioned are moved in the materiality analysis on the business relevance scale compared to last year.

Review on Performance, People, and Planet
This → publication depicts Clariant's dedicated management approaches, as well as current developments, activities, and achievements for each material topic.

Clariant Culture

A WORLD OF POSSIBILITIES

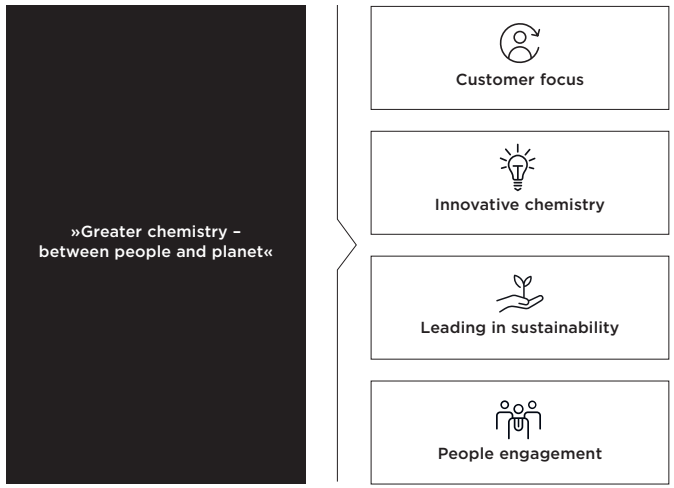
Transforming

Reshaping the company remained a focus in 2022, when Clariant continued its transformation process and the course it had set in the last two years. While Clariant has a long history, in recent years, the company has transformed itself into a focused specialty chemicals company and significantly reshaped its portfolio. With 2022 the time had come to initiate and foster significant changes also in corporate culture. These changes will eventually enable an exceptional workforce to achieve even greater outcomes in the ongoing efforts to overcome the challenges and »side effects« of crisis and uncertainty caused by political and economic developments. Turning challenges into opportunities is key for Clariant in preparing the ground for the next generations to come.

On this transformation journey, in 2021, Clariant reached an important milestone with the introduction of the purpose »Greater chemistry – between people and planet,« distilling the essence of Clariant's license to operate and expressing what Clariant strives to contribute to this planet and the people living on it. Clariant's purpose puts customers, employees, and the planet at the center of every business activity. The statement was defined by the Clariant leadership team together with colleagues from all over the world and with key customers. It stands for Clariant's

- distinct customer focus;
- strong innovation capability;
- profound commitment to sustainability in its operations and products;
- uniquely talented people in a culture of empowerment and inclusiveness.

016 **GUIDED BY THE PURPOSE**



As the chemical industry touches on more than 90 % of all the products that society uses in its daily life, it has the opportunity and the responsibility to create a truly meaningful impact. Clariant has an attractive innovation pipeline that is strongly linked to customer requirements. Interactions between uniquely talented and highly motivated employees with an entrepreneurial spirit drive a high-performance culture. This enables Clariant to deliver products and solutions with outstanding technical and sustainable performance. Innovative and customer-driven chemistry, paired with people empowerment and leadership in sustainability, serves the interests of Clariant's key stakeholders. It leads to greater chemistry – between people and planet – and thus provides for a long-term approach to sustained value creation.

Bringing the purpose to life by activating its underlying rationale resulted in various further steps throughout 2022. Regarding organizational changes, 2022 was essential for the implementation of a new global company setup with a new leadership team, less layers on management levels, a reduced number of business units, and simplified structures and processes overall, as the chapter → Core Processes describes. The new operating model will foster greater accountability, speed up decision-making processes, and enhance customer proximity. It will support the implementation of Clariant's purpose-led strategy and long-term sustainable growth to the benefit of all stakeholders, including employees, customers, and shareholders. While organizational changes are scheduled to be completed by January 2023, it will take more time throughout 2023 and beyond to set up revised ways of working together.

The next phase of Clariant's change journey will consist of customized measures, leveraging employee groups to maximize the positive impact of this transformation while building and strengthening individual and group engagement. Across employee groups, the company will focus on three areas to build momentum: communication, building new capabilities and focusing on the enablers. Additionally, Clariant will continue to move forward on the DE&I strategy as well as creating effective, yet simple, people processes for managers and employees.

Q&A

Tatiana Berardinelli
Chief Human Resources Officer
Member of the Executive Leadership Team

Clariant is in the middle of a significant transformation. In your view, what is most important to make this transformation a success?
We need to make sure that all our colleagues at Clariant understand why we started this transformation and what impact it has for everyone. We also need to make sure that everyone knows how to contribute to this change, which goes far beyond adjusting an organizational structure. The cultural component of this change is even more important. That is why it is crucial for us to bring our new values to life in the best way possible.

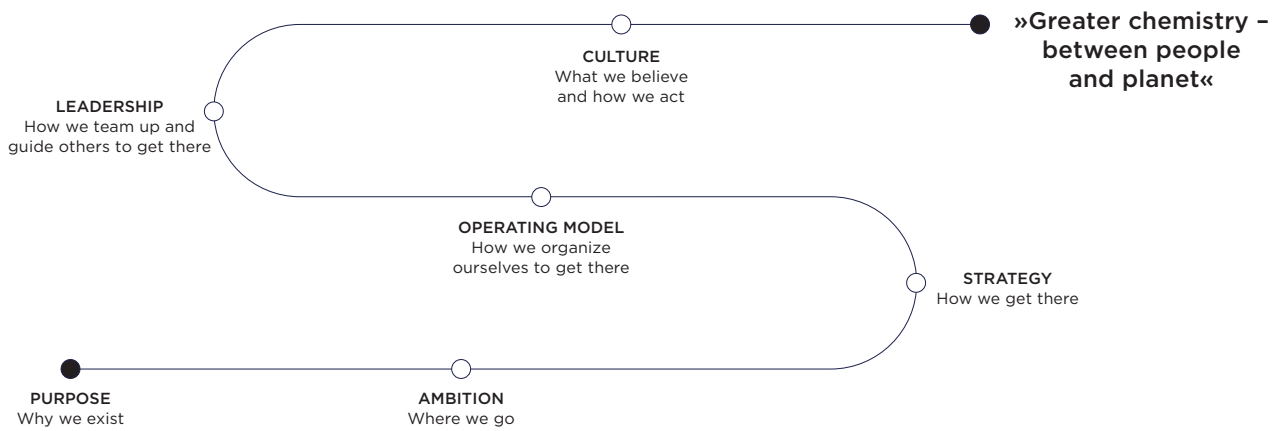
As CHRO, the value »empower and include« is highly relevant to your work. What does that value mean to you?
Empowerment means trusting the teams and trusting that everyone in our company is able to deliver on their jobs. Inclusion means that everyone has a voice in the company, and that we want to hear every opinion. It is not always possible to implement a suggestion, but it is obvious that we will achieve much better results if we consider different ideas.

Making yourself heard as an employee can be challenging. What is Clariant's plan to foster diversity, equity, and inclusion?
That is why we developed a roadmap to make Clariant a more diverse, equitable, and inclusive workplace. We want our people to reflect the world's diversity and create a workplace that engages everyone. When everyone is welcomed, considered, and appreciated, we build an environment that spurs forceful innovation. Our aspiration is to ensure that everyone feels valued and respected as an individual. Thanks to inclusive leadership we empower our talents to think out of the box and share their experiences and perspectives, which in turn is a key driver for development and engagement.

Clariant aspires to attract the best talents in the industry. Why choose Clariant as an employer?
We foster an empowering, inclusive, and performance-oriented culture where everyone feels welcomed, included, and appreciated. We create an environment where you can perform at your best and thrive. We think of our people as the true magic behind our achievements. Our ambition is to be an employer of choice for talents across the globe and create a distinctively great place to work.

017 **CLARIANT'S VALUES**

018 **ESSENTIAL INGREDIENTS OF OUR JOINT PURPOSE-LED JOURNEY**



Leaders, managers, and employees can count on multidimensional support that enables them to stay focused on delivering the goals for 2023 while strengthening engagement in their teams. From the organization's side, employees may count on: a clear communication and dialogues with the ELT through the year to share Clariant's new values and behaviors, progress, direction, actions and seek feedback. Leaders will provide mentoring as employees navigate new charters, ways of working and new cultural expectations, and resources to acquire needed know-how and capability development to equip with the right skills. There will surely be opportunities to contribute to the change and the enablers to strengthen performance such as the New Performance Management Process and incentives (long- and short-term). Human Resources aspires to be a partner enabling business results and Clariant's culture via impactful, simple, and people-friendly processes and enhancing employee experience and engagement through the employee life cycle.

Evolution of Clariant's new values

As the company is transforming and the external environment is changing, it is crucial to continue to evolve, which is why existing values were critically assessed. Starting in November 2021, the Global Management Team examined the Clariant values and discussed their validity and what they would change considering the newly developed purpose statement of 2021. Several groups of Clariant employees from different regions also provided their input. The result was not a revolutionary change in existing values, but an evolutionary change. In September 2022, Clariant unveiled new values, which are considered the new cornerstones of the Clariant culture. They reflect the growth mindset of the people working at Clariant and what each individual at Clariant should expect from themselves and one another. They serve as a compass, providing orientation and guiding the way to deliver on the company purpose.

Based on the aspiration to live up to the values, the next steps in 2023 will include actions to help move from poster to practice and embed the values in all people-related processes in order to grow people awareness. The values as of 2022 are:

- win with our customers;
- act with integrity;
- empower and include;
- perform with agility;
- innovate for sustainability.

Reshaping continued: more diverse, equitable, and inclusive

Another milestone concerning corporate culture was reached in June of 2022, when Clariant launched its Diversity, Equity, and Inclusion (DE&I) Roadmap along with corresponding DE&I objectives. Continuously developing Clariant into a more diverse, equitable, and inclusive workplace is essential for the Clariant people to represent the world´s diversity. This is the goal on the Management level as well as throughout the entire workforce. When all people and social identities are welcomed, considered, and appreciated, an environment within the organization can be built that spurs powerful innovation and attracts opportunities for employees, customers, shareholders, and ultimately society. For this goal, Clariant will continuously review progress on its DE&I journey, for which leaders at Clariant will be held accountable.

→ Read more in the Review on Performance, People, and Planet, in the chapter Diversity, Equity, and Inclusion.

Diversity, Equity, and Inclusion Objectives

- Increase the inclusion index from 66 % in 2021 to 82 % in 2030
- Achieve gender parity by 2035
- Grow the percentage of female leaders from 16 % to over 30 % and strengthen gender balance for non-frontline employees from 35 % female in 2021 to 45 % by 2030
- Increase the percentage of leaders of national origin outside Europe at the Senior Management level from 32 % in 2021 to over 40 % in 2030

019 **DIVERSITY, EQUITY, AND INCLUSION ROADMAP OF ACTIONS**

2022 →

- Launch roadmap
- Align leadership
- Implement first actions against baseline

2023 →

- Fully integrate DE&I into core people processes
- Connect to employees' experience

2024 →

- Review progress
- Broaden focus areas and action plans

2025 and beyond →

- Continuously fine-tune measures to ensure embedding of DE&I in Clariant culture and environment

Value Creation in the 2022 Financial Year

VALUE CREATION AT THE GROUP LEVEL

In the full year 2022, sales from continuing operations were CHF 5.198 billion, compared to CHF 4.372 billion in the full year 2021. This corresponds to an increase of 24 % in local currency and 19 % in Swiss francs. Both pricing and volume growth had a positive impact on the Group of 17 % and 7 %, respectively, while the currency impact was –5 %.

In the full year 2022, sales growth exceeded 20 % in local currency in all geographic regions. Clariant's performance was especially strong in North America, Latin America, and the Middle East & Africa.

Care Chemicals grew sales by 28 % in local currency in full year 2022 with double-digit sales growth in all key businesses. In Catalysis, the top line was up by 14 % in local currency, propelled by the Petrochemicals and Specialty Catalysts businesses. Oil and Mining Services, Functional Minerals, and Additives in particular, all contributed to the 25 % local currency sales growth reported at Natural Resources.

The continuing operations EBITDA increased by 14 % to CHF 810 million as the Group improved profitability on the back of sales growth. The EBITDA margin was 15.6 %, versus 16.2 % in the previous year. Adjusting for restructuring expenses of CHF 40 million related to the implementation of the new operating model, booked in the fourth quarter of 2022, the 16.4 % EBITDA margin exceeded the previous year's level. The adjusted profitability improvement was propelled by pricing measures that more than fully offset the high raw material cost increase (25 % year-on-year) and higher energy (+35 %) and logistics cost (+6 %). The Group's ongoing cost discipline and the profitability improvement in Care Chemicals and Natural Resources more than offset the relative weakness in Catalysis, which includes a CHF 43 million negative impact from sunliquid®.

The EBIT decreased to CHF 72 million in the full year 2022 from CHF 440 million in the previous year, mainly due to three impairments totaling CHF 462 million. A non-cash impairment in the amount of CHF 233 million was related to the sale of Clariant's North American Land Oil business to Dorf Ketal, which is expected to close in the first quarter of 2023. A further impairment of CHF 220 million was booked for the sunliquid® bioethanol plant in Romania based on the delayed ramp-up and the plant's current financial performance. A CHF 5 million impairment was also made on Clariant's assets in Ukraine. Excluding these charges, the EBIT increased to CHF 534 million, 21 % above the full year 2021.

In the full year 2022, the total Group net result was CHF 116 million, versus CHF 373 million in the previous year. The net result was lifted by the net result from discontinued operations of CHF 217 million, mainly related to the gain on the Pigments disposal; the strong business performance of the continuing operations; and the corresponding margin improvement, while impairments had a negative impact of CHF 462 million.

Net operating cash flow for the total Group increased to CHF 502 million from CHF 363 million in the full year 2021. This development was mainly attributable to strong underlying earnings and net working capital management. The increased free cash flow of CHF 293 million compared to CHF 6 million in 2021 resulted in a conversion rate in 2022 of 36 %, versus 1 % a year ago, and is attributable to the strong operating cash flow and disciplined capital expenditures.

Net debt for the total Group decreased to CHF 750 million, versus CHF 1.535 billion recorded at the end of 2021. This development is largely attributable to a significant reduction in current financial debt and an increase in short-term deposits due to proceeds received from the divestment of the Pigments business and the Scientific Design Company stake.

The Board of Directors recommends an increased regular distribution of CHF 0.42 per share to the Annual General Meeting (AGM) on 4 April 2023 based on the strong performance in 2022. This distribution is proposed to be made through a capital reduction by way of a par value reduction.

Clariant aims to grow above the market to achieve higher profitability through sustainability and innovation. Clariant has become a true specialty chemicals company and confirms its 2025 ambition to deliver profitable sales growth (4 – 6% CAGR), a Group EBITDA margin between 19 – 21%, and a free cash flow conversion of around 40%.

As of 1 January 2023, Clariant will report in the business unit structure aligned with its new operating model. The Business Unit Care Chemicals includes the former Business Area Care Chemicals and the Business Unit Oil & Mining Services (previously part of the former Business Area Natural Resources). The Business Unit Catalysts is unchanged from the former Business Area Catalysis. The Business Unit Adsorbents & Additives is a combination of the former Business Units Functional Minerals and Additives (both previously part of the former Business Area Natural Resources).

From a macroeconomic perspective, Clariant anticipates a soft recessionary environment in the first half of 2023, compared to a very strong first half of 2022, and expects to see an economic recovery in the second half of 2023 while uncertainties and risks related to the economic environment remain. For the full year 2023, Clariant expects to achieve sales of around CHF 5 billion, including a net negative top line impact of around CHF 130 million from divestments and the bolt-on acquisition. Clariant aims to slightly improve its year-on-year reported EBITDA margin due to a continued recovery in Catalysts, which is expected to offset lower sales volumes in the other business units. Clariant expects an increasing negative annualized sunliquid® impact and a continued inflationary environment given the current economic outlook, counterbalanced by savings benefits from the restructuring programs.

Q&A

Bill Collins
Chief Financial Officer (CFO)
Member of the Executive Steering Committee

You joined Clariant in July 2022. What have been your first impressions in the last months?
Prior to joining, I had heard many great things about Clariant as part of my due diligence, and I'm happy to say that the reality matches my expectations. It's an exciting time to be at Clariant – we can focus on building a structure and culture truly focused on serving our customers and thus growing the company.

Joining Clariant also meant moving to Switzerland from the US. Have you settled in yet?
Absolutely. As our recent relocation to Switzerland is now our tenth international move, we're becoming experts in the process. Plus, having lived in Switzerland before, coming to Basel has been an easy transition.

In your first months here at Clariant, you already achieved a significant success by placing a green bond in the amount of CHF 175 million. What does this mean to you personally?
This transaction shows how the finance function can contribute to sustainability across the Group. The bond allowed sustainability-driven investors to participate in the sustainability leadership of our company. We use these proceeds to finance assets for the transition toward a low-carbon and environmentally sustainable society. So, the bond allows us to make clear progress toward our 2030 emission targets. And our investors profit from the fact that these assets will make Clariant an even more future-proof bond issuer.

What is your opinion of Clariant's financial performance in 2022?
I consider it to be a significant accomplishment that Clariant grew sales so notably over the year, by 24 % in local currency. Despite the tough inflationary environment, we achieved strong operating performance and full year EBITDA margin of 16.4 % – excluding restructuring charges of CHF 40 million related to the implementation of the new operating model – slightly exceeding the full year 2022 guidance we previously communicated. We increased the free cash flow conversion rate to 36 % due to the strong operating cash flow and disciplined capital expenditures. In my view, these solid results have brought us a step closer to achieving Clariant's financial targets for 2025.

CARE CHEMICALS

General information

In the 2022 financial year, the Business Area Care Chemicals comprised the Business Unit Industrial & Consumer Specialties (ICS). As a leading provider of specialty chemicals and application solutions for consumer care and industrial markets, Care Chemicals delivers high-performance ingredients and formulation expertise at the best cost-to-performance ratio with an integrated value chain that responds quickly to consumer trends.

CARE CHEMICALS IN THE 2022 FINANCIAL YEAR

OVERVIEW

In the 2022 financial year, the Business Area Care Chemicals comprised Industrial & Consumer Specialties (ICS), which serves customers in the personal & home care, crop solutions, paints & coatings and industrial applications markets.

APPLICATIONS

Business Unit Industrial & Consumer Specialities

- Automotive Fluids
- Aviation
- Construction chemicals
- Crop Solutions
- Health Care
- Home Care
- Industrial Lubricants
- Paints & Coatings
- Personal Care
- Special solvents

PRIORITY SDGS

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

Care Chemicals sets a clear focus on highly attractive, high-margin, and low-cyclicality segments. The business area operates in seven different markets: personal & home care, crop solutions, paints and coatings, industrial lubricants, automotive fluids, and aviation. Offering approximately 2000 products to around 5000 customers, it operates in Europe, Middle East, and Africa, Asia-Pacific, North America, and Latin America. Approximately two-thirds of the business is consumer-facing in consumer care and industrial applications.

The business area benefits from several business drivers:

- growing relevance of lifestyle-driven consumers focused on comfort and well-being;
- an increased interest in green and sustainable products that are based on natural ingredients and free of harmful substances;
- the desire of the agricultural industry to better fulfill global nutrition requirements;
- the general trend toward responsible production and consumption, including a demand for solutions that reduce the carbon footprint in the value chain

As of January 2023, the former Business Units ICS and Oil and Mining Services make up the Business Unit Care Chemicals. This reorganization is part of the simplified organizational and leadership structure that is outlined in greater detail in the chapter → »Business model and strategy – organizational structure.«

Market dynamics in 2022

In 2022, global supply chain disruptions and surging freight costs continued to drive supply chain strategies toward regionalization and higher resilience. Increasing supply chain uncertainties and cost volatility put pressure on inventories along the supply chain. As a result of the disruptions faced in 2021 and 2022, customers increasingly require suppliers to ensure supply chain resilience and transparency.

In 2022, a growing global need for more sustainable ingredients also became evident, particularly in terms of their environmental footprint. Ingredients with a lower carbon footprint and a higher renewable carbon index (RCI) are key driving forces for innovation in the market. Customers are looking for ingredients that can deliver significant improvements in both factors while maintaining the technical performance of their formulations and products.

How Business Area Care Chemicals created value in 2022

In the full year 2022, sales in the Business Area Care Chemicals increased by 28% in local currency and by 24% in Swiss francs, with the full integration of Beraca contributing approximately 1% of this sales growth. Both Consumer Care as well as Industrial Applications sales rose at rates exceeding 20% on the back of strong market demand, especially during the first nine months of the year. The absolute Care Chemicals sales levels in 2022 significantly exceeded full year 2019 pre-pandemic levels.

The EBITDA margin in the full year 2022 increased to 22.3% from 20.7%. This positive development resulted from active price management to address raw material cost inflation, supply chain constraints, and energy and logistic cost increases, as well as from the continuous portfolio improvement toward more innovative and sustainable offerings to address customer needs. The full year 2022 was a strong year in terms of launches of innovative and sustainable solutions to Clariant's customers as described in the next section.

New partnerships and products

In February 2022, Clariant unveiled new Vita 100% bio-based surfactants and polyethylene glycols. With a Renewable Carbon Index (RCI) of at least 98%, these products help to remove fossil carbon from the value chain. They are based on sugar cane or corn, which are fully segregated along the value chain from the field to the final consumer product. Vita surfactants have a significantly lower carbon footprint compared to their fossil analogues. At the same time, they are chemically equivalent to Clariant's fossil versions, offering the same performance and efficiency to formulators and brand owners. Therefore, Vita products support manufacturers in maximizing the bio-based carbon content of consumer goods such as detergents, hair and body shampoo, paint, industrial lubricants, and crop formulations.

In August 2022, Clariant reached a definitive agreement for the divestment of its Quats business to Global Amines Company Pte. Ltd., a 50/50 joint venture owned by Clariant and Wilmar, Asia's leading agricultural business and oleochemicals business globally. The divestment is a further step in Clariant's portfolio transformation to focus operations purely on specialty chemicals. Quats are quaternary ammonium compounds, a group of chemicals used for a variety of purposes, including as preservatives, surfactants, and as antistatic agents. They are used in a wide range of commercial, industrial, and consumer products. The business maintains an excellent reputation as a leading supplier of quats with proprietary technology and a good service reputation. The transaction is subject to regulatory approvals and customary closing conditions and is expected to be consummated in the first half of 2023.

In September 2022, Clariant showcased one of the largest ingredient portfolios of natural actives, oils, butters, and clays in the industry. This range of naturals for the cosmetics market is provided by Beraca, a Brazilian personal care specialty company that was fully acquired by Clariant in 2021. Beraca is located in the Amazon region and has outstanding expertise in natural and organic certified ingredients such as fats, oils, and botanicals. Ethical sourcing commitments in close collaborations with local communities help to keep natural environments intact, while brands benefit from the transparency and traceability from plant to ingredient. The new product line features products such as the innovative new skin care ingredient Ethience® Protect and offers proven efficacy and science-backed claims for skin, hair, and body care.

FEATURED STORY

Sustainable sourcing – protecting the skin by protecting the Amazon forest

The »Queen of the Amazon« is a tall, strong beauty who regularly showers the floor of the rainforest with precious gifts – Brazil nuts. By using a byproduct from Brazil nut oil extraction for our skin care ingredient Ethience® Protect, we contribute to the Sustainable Development Goals 3, 12 and 17.

Learn more

In October 2022, Clariant launched Genapol® Complete, a new product for the high-performing automatic dishwashing segment. Genapol® Complete is the first environmental label-compatible surfactant capable of achieving excellent rinse and very good overall drying performance, cleaner machines, and CO_2 product footprint savings. It is derived from natural oil and is readily biodegradable. The natural origin of Genapol® Complete ensures a substantially lower carbon product footprint for final formulations than is possible with standard surfactants. It achieves CO_2 savings of 30% compared to the best-in-class benchmark, with no loss in rinse performance, thus providing brands with a significant differentiating advantage for their products.

In agriculture, there is a growing interest in the data-driven and outcome-oriented practices of precision farming. Drones already play a relevant role in the targeted application of fertilizers, and drone spraying is also a highly interesting approach when it comes to pesticides. However, drone-assisted pest management still has to overcome a number of challenges: As drones have small tanks, they need to carry a highly concentrated mix of actives. Also, they have to spray very fine drops to be effective – but if the droplets are too small, wind drift makes the application less efficient. In order to tackle these issues, Clariant has created DropForward™, a focused approach to drone-specific adjuvants and formulations. The first DropForward™ solution, called Synergen® DRT, was introduced to the markets in April 2022. This adjuvant helps to control the drift and volatility of droplets, while also improving the coverage and penetration of the actives in the leaves. This boosts biological performance and makes drone spraying more sustainable and environmentally friendly.

New locations

In December 2022, Clariant held a groundbreaking ceremony to expand its Care Chemicals facility in Day Bay, Huizhou, China, to boost its support for pharmaceutical, personal care, home care, and industrial application customers. The CHF 80 million investment will see capacity increases for existing products as well as the introduction of new products by the end of 2024. The site will also become a new global hub for Clariant's healthcare business support, speeding up the supply of high-quality ingredients for life-changing medicines.

Innovation activities

In June 2022, Clariant launched »BeautyForward™ 6« – a digital tool that facilitates the research and selection of natural ingredients for personal care formulations. The tool features standardized data on the Renewable Carbon and Natural Origin Indices of over 800 ingredients for personal care applications, including over 300 ingredients from Clariant's own portfolio. BeautyForward™ 6 calculates the percentage of natural content of any formulation according to the ISO 16128 methodology and showcases the individual impact of specific ingredient choices on formulation naturality. Available on Clariant's own → ClariHub platform, the tool allows users to create their own natural formulation from scratch or to choose and edit a series of exemplary and customizable skin and hair care formulations.

In October 2022, Clariant launched ClariCoat, a new digital platform for paints and coating specialists. ClariCoat's offering is unique in the paints and coatings industry. It allows for customized property selection covering a wide range of performance criteria, from liquid paint stability and workability to sustainability, to name a few. Once the criteria selection is complete, the product recommendation engine proposes the most suitable additives covering the needs of the paint formulator. The → platform is available for registered users on the Clariant website.

Q&A

Christian Vang
Business President Care Chemicals and Americas
Member of the Executive Steering Committee

In the Business Unit Care Chemicals, consumer trends have a major influence on Clariant's business. Which trends are most important, and what does Clariant have to offer with respect to these trends?
Most trends today are anchored around sustainability, with CO_2 footprint reduction driving both our innovation and sourcing. We recently established a joint venture in India, Clariant IGL Specialty Chemicals Private Limited. In doing so, we have taken a lead position in providing the world with products and solutions based on our bio-derived ethoxylates.

You also have responsibility for the complete Americas region. What drives Clariant's business in this part of the world?
Clariant has a long-standing presence in the Americas region. But despite the growth in recent years, we are still underrepresented compared to our presence in other regions. So, the drive is to further lead innovation and optimize the manufacturing footprint in the Americas region.

What is your vision for the business unit?
I want to continue our growth path by delivering innovative solutions and products that support our customers and end markets in their sustainability transformation. I also intend to further optimize our portfolio by pursuing both organic and inorganic growth opportunities. And I want to make sure that everyone feels comfortable with our new organizational setup and embraces this positive change.

Clariant recently introduced a new set of values. Which of these values has played the biggest role in your career so far?
I feel a very strong connection to the value »Win with our customers«. First of all, I think that our customers are the reason why we exist as a company. But I also believe that winning with customers can be a truly rewarding experience for everyone at Clariant. That is why I would like everyone in this company to appreciate that every little decision in our work can have a meaningful impact on our customers.

Certifications and awards

In February 2022, Clariant's TexCare® series received Henkel's »Best Innovation Contributor Award Laundry & Home Care 2021 – Runner Up.« TexCare® is an advanced soil release polymer technology for laundry detergents that combines best-in-class dirt protection with environmental benefits: Polymers form a protective film on clothes that reduces staining and graying. This helps to reduce the number and temperature of washing cycles, which in turn saves water and energy.

In 2022, Clariant further strengthened its position in the Active Ingredients market with the launch of three new award-winning Active Ingredients. In particular, Clariant was awarded several BSB Innovation Awards 2022 for Active Ingredients: Gold for Rootness® Awake in the category »Environment,« Silver for Galactinol Advanced in the category »Actives,« Silver for Prunizen® in the category »Natural Products,« and Silver for the formulation concept Beauty Wizard in the category »Applied Concepts.« Clariant was also awarded the Ringier Technology Innovation Award 2022 for Prunizen® in China, which recognizes innovative ingredients based on criteria such as product efficacy, functionality, and safety.

Ongoing developments

Clariant is a worldwide technology leader in premium rheology modifiers for Personal Care, with the well-known Aristoflex® range. Premium rheology modifiers are a growing sector in Personal Care, driven by premiumization of skin care products aiming to deliver a sophisticated sensory experience to consumers. Clariant has been upgrading its premium rheology modifiers range with one additional product: Aristoflex® ECO-T. This Aristoflex® version was designed to address customers aiming to have the sophisticated premium sensory of Aristoflex® while improving the sustainability profile of their formulations. Aristoflex® ECO-T is a combination of a natural bio-polymer with Clariant polymerization technology, achieving a Renewable Carbon Index of 71% and a readily biodegradable profile, surpassing alternative technologies available in the market.

Business Area Care Chemicals

Input

2.0 %
R&D spend of sales

1 117.6
Raw materials procured in CHF m

38 788
Training hours

804.6
Energy consumption in m kWh

> 65
Active innovation projects

15
Production sites

1 903
Number of raw materials procured

1 049
Raw material suppliers

Output

2 099
Sales in CHF m

28 %
Growth in local currencies

47.0
Waste in thousand t

22.3 %
EBITDA margin

2 811
Staff in FTEs at year-end

0.88
Production volume in m t

CATALYSIS

General information

The 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. They contribute significantly to value creation in its customers' operations, making use of finite raw materials and energy efficiently and effectively, ensuring quality and yield of processes.

The business area profits from several business drivers:

- the need to increase energy efficiency and sustainability in chemical production;
- the desire to decarbonize the chemical as well as the transport sectors;
- the search for sustainable, emission-free mobility solutions;
- growing interest in circular-economy solutions through the extensive use of renewable resources;
- increasing legal and regulatory requirements for renewable energy sources.

The Business Area Catalysis has 16 production sites (including joint ventures), 21 sales offices, and 11 contract R&D centers around the world.

Business Unit Catalysts

Building on a 165-year history, Business Unit Catalysts is a global catalyst manufacturer of energy-efficient technologies shaping a sustainable future for the chemical industry. The Business Unit Catalysts helps to decarbonize its customers' production processes and scale up the transition toward zero-emission chemicals and fuels. Through exceptional R&D and established expertise, its broad portfolio of catalysts and adsorbents provides innovative solutions that increase production throughput, lower energy consumption, and reduce hazardous emissions from industrial processes.

For example, the emission-control EnviCat®-S catalysts series removes harmful chemical compounds with an excellent conversion efficiency. The EnviCat®-S catalysts series also helps customers meet strict new regulations concerning the improvement of air quality around the world. Another example is the catalyst AmoMax® 10 Plus, a new wustite-based catalyst that contributes to a more sustainable and profitable production of green ammonia. It delivers stable and reliable performance so that green ammonia producers maximize yields while minimizing operating expenses. And Clariant's tailor-made structured catalysts used in the award-winning EARTH® technology help to improve the efficiency of hydrogen production: EARTH® is proven to increase hydrogen yield by up to 20 %, while decreasing CO_2 emissions by up to 10 % and reducing makeup fuel consumption by up to 50 % per unit of hydrogen produced.

Business Line Biofuels & Derivatives

Biotechnology provides unique opportunities for Clariant to meet its customers' demand for more sustainable production chains and for energy supply on a renewable basis. The business line's flagship product is the sunliquid® technology, which converts agricultural residues into cellulosic ethanol, a second-generation biofuel.

As of January 2023, the former Business Area Catalysis is replaced by the new Business Unit Catalysts, which now also includes the former Business Line Biofuels & Derivatives as one of its segments. This reorganization is part of the simplified organizational and leadership structure that is outlined in greater detail in the chapter → »Business model and strategy – organizational structure.«

Market dynamics in 2022

2022 was an exceptionally challenging year. The war on Ukraine caused a major energy crisis that contributed to inflation of input costs. The strict zero COVID-19 policy in China depressed economic activity. Internationally, a long period of record-low interest rates came to an end. All chemical sectors in Europe relying on natural gas for energy and as a feedstock – such as ammonia and methanol – were challenged.

CATALYSIS IN THE 2022 FINANCIAL YEAR

OVERVIEW

Business Area Catalysis comprises Business Unit Catalysts and Business Line Biofuels & Derivatives. Products of Business Unit Catalysts are used for chemical production, fuel processing, and emission control. Its »custom catalysts« business helps customers to scale up and commercialize their new catalyst recipes. Business Line Biofuels & Derivatives complements the offering with sunliquid®, a groundbreaking technology to produce biofuels and biochemical intermediates from agricultural residues.

APPLICATIONS

Business Unit Catalysts

- Ammonia cracking
- Ammonia
- Custom catalysts
- Ethylene & derivatives
- Fischer-Tropsch
- Fuel cell
- Fuel upgrading
- Gas processing
- Hydrogen
- Hydrogenation
- Liquid hydrogen carrier
- Low-carbon ammonia
- Low-carbon methanol
- Methanol
- Methanol-to-propylene (MTP)
- Off-gas treatment for chemical plants and stationary engines
- Olefins purification
- On-purpose propylene
- Oxidation
- Polypropylene
- Refinery stream purification
- Styrene
- Zeolite powders

Business Line Biofuels & Derivatives

- Biocatalysis
- Cellulosic ethanol
- Cellulosic sugars
- Low-carbon advanced biofuels
- Residue-derived biochemical intermediates

PRIORITY SDGS

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

Regions with advantaged feedstock costs and ample hydrocarbon resources, such as the Middle East and North America, are profiting from the new energy environment. BU Catalysts, as a global player with a broad portfolio, can take advantage of the shifts in the chemical industry and grow with the advantaged regions.

The ongoing energy crisis has further accelerated the energy transition, as can be seen from the pace of project announcements. The Business Unit Catalysts is well positioned to capture these opportunities through its portfolio of technologies for conversion of green hydrogen.

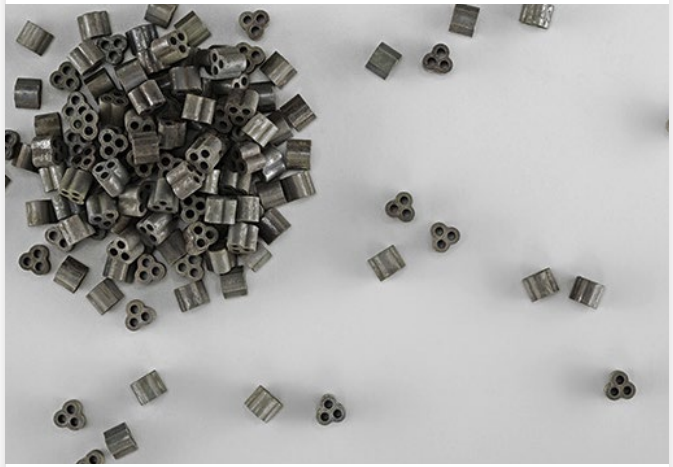
How the Business Area Catalysis created value in 2022

In the full year 2022, sales in the Business Area Catalysis rose by 14 % in local currency and by 9 % in Swiss francs. This growth was mainly volume-driven. In response to the cost developments mentioned above, Clariant implemented price increases across its catalysts portfolio.

In 2022, the EBITDA margin decreased to 9.4 % from 16.8 % in the previous year. The main factors impacting this development included: (1) project cost and higher operational cost related to the new sunliquid® production plant in Romania; (2) a less favorable product mix during the first nine months of 2022, with a lower share of accretive Petrochemicals and Syngas catalyst sales and the suspension of all business with Russia; (3) temporary margin squeeze, which continued into September, due to pressure from raw material (peak in the second quarter of 2022), energy, and logistics cost.

Clariant's energy-efficient catalyst technologies made a significant contribution to climate protection in 2022. They enabled the emission reduction of more than 35 million tons of carbon dioxide equivalent (CO_2e) in customers' processes in the chemical industry.

FEATURED STORY



Nitrous oxide – catching an elusive villain

In the fight to protect the climate, Clariant has developed a catalyst that effectively cuts down nitrous oxide emissions and will give the opportunity to ten companies worldwide to try it for free.

Learn more

A significant part of the emission reductions comes from customers in the steel industry, a sector otherwise responsible for 7 % of global CO_2 emissions. Clariant's reformer catalysts are used in the Direct Reduction of Iron (DRI) process of iron production, which in turn feeds into the production of steel.

Another key contributor is Clariant's solutions for the catalytic abatement of nitrous oxide (N_2O) emitted during the production of nitric acid. Clariant's catalysts offer an economical solution for removing up to 99 % of nitrous oxide emissions by converting them into harmless nitrogen and oxygen.

New products

Clariant's EcoCircle initiative supports the transition from a one-way plastics value chain toward a circular plastics economy. One way to do this is to use mixed plastic waste for the production of pyrolysis oils, a feedstock for valuable chemicals. Launched in October 2022, Clariant's new HDMax® catalysts and Clarit™ adsorbents are designed for the purification of theses pyrolysis oils. Used together, the adsorbents extend the life of the catalyst by reducing impurities in the production process. Producers benefit from highly efficient impurity removal to achieve pyrolysis oil that is compatible with ethylene plants. → See also the Natural Resources chapter

New initiatives

The Business Area Catalysts supports the decarbonization of the chemical industry in various ways. For example, catalysts play a major role in the production of so-called green ammonia, which is produced using renewable energies. Clariant will supply a new green ammonia plant by KBR in Duqm, Oman, with its next-generation AmoMax® 10 Plus ammonia synthesis catalyst. Once completed, the plant will use solar and wind energy to produce 300 tons of ammonia per day, avoiding 270 000 tons of CO_2 each year compared to an average traditional ammonia plant. Clariant also supplies another groundbreaking green ammonia project in Australia with its award-winning AmoMax® Casale ammonia synthesis catalyst. The joint project of The Hydrogen Utility and Case starts with the construction of two pilot plants that will avoid around 100,000 tons of CO_2 per year.

In November 2021, Clariant launched a global climate campaign to reduce nitrous oxide (N_2O). N_2O is a by-product of nitric acid production and around 300 times more harmful to the climate than CO_2. Of the approximately 500 nitric acid plants operating globally, more than half run without N_2O abatement. Such producers without abatement were able to apply for a free first fill of Clariant's EnviCat® N_2O-S catalysts. These catalysts remove up to 95 % of N_2O generated in nitric acid production.

Clariant's SynDane® catalysts will be used in one of the world's largest plants for maleic anhydride, an important base material for biodegradable plastics. The plant by Wanhua Chemical Group is located in China's Shandong province and will commence operations in 2023. It will be the first plant to use a new production technology, which includes the use of SynDane® catalyst. The increased efficiency of the production process results in planned energy savings of up to 24 000 MWh each year.

Certifications and awards

In June 2022, the American Chemistry Council (ACC) awarded Clariant with the Sustainable Leadership Award 2022 in the category »Environmental Protection.« The accolade is in recognition of Clariant's global climate initiative for N_2O reduction (see above).

In October 2022, Clariant and its engineering and technology partner Technip Energies received two industry awards for the groundbreaking EARTH® technology: EARTH® was selected as the »Best Process Innovation« in the ICIS Innovation Awards 2022 and as the winner in the »Best Refining Technology« category of the Hydrocarbon Processing Awards 2022. In parallel, EARTH® was installed at a large-scale hydrogen plant in one of Europe's biggest refineries, resulting in an expected increase in production capacity of up to 20 %.

Q&A

Jens Cuntze
Business President Catalysts and APAC
Member of the Executive Steering Committee

You have been with Clariant since 2003, and led part of the Catalysts business 2013-2018. With this experience, what is your perspective looking forward?
Through my tenure and the business and functional roles that I have held in the past, I am well acquainted with many of our customers' industries, value propositions, and colleagues. This gives me confidence in our ability to develop our company toward our medium-term strategy. I am looking forward to driving the business with the newly appointed leadership team.

What is your target for Business Unit Catalysts?
Our mission is to create greater chemistry – between people and planet – by supplying innovative, sustainable, and economical catalyst solutions that help our customers increase production throughput and maximize their profitability. An excellent example is EARTH® technology, which we recently developed and commercialized with Technip Energies. It is a groundbreaking solution for blue hydrogen production, proven to increase yield by up to 20 %, decrease carbon emissions by up to 10 %, and reduce makeup fuel consumption by up to 50 %. EARTH® is carbon capture-ready and can play a key role in global efforts to reduce emissions. With regard to short-term priorities, our financial performance in 2022 was below our ambition standards and historical levels. Therefore, improving our performance is an important priority.

Where do you see the biggest market potential for Catalysts in the coming years?
Our current sales are well balanced between EMEA, America, China, and the rest of Asia. Further progress will come from regions with strong GDP-based growth potential as well as from markets that will invest in new capacity based on competitive feedstock. In the medium- and long-term, we see additional expansion opportunities through new technologies and the development toward more sustainable solutions that enable decarbonization. As a leading global catalysts supplier with a broad product portfolio, we are very well positioned to participate in these growth markets.

You are also President of APAC. What is your view on the growth potential of this region?
APAC will continue to be a strong growth driver due to an above-average increase in GDP and a higher share of local production. This holds true for China, India, and Southeast Asia. Although we already have a strong footprint in APAC, we are further enhancing our presence. Our ongoing expansion across our operations in China will drive a stronger regional business model by developing and producing in the region, for the region.

Academic partnerships

Clariant has partnerships with prominent global academic institutions. For example, the strategic academic cooperation of Clariant and the Technical University of Munich, called »MuniCat,« has brought about more than 30 completed projects since its inception in 2011. »MuniCat« has been saving innovative intellectual property and technical know-how for Clariant and has been crucial in developing improved and new catalyst systems. Clariant and the Technical University plan to further cooperate to develop new catalyst technologies for trendsetting sustainable transformations. The research cooperation with the ETH Zurich is another example of Clariant's academic partnerships. Clariant has awarded the winners of the ETH Talent program for their outstanding research in the field of Catalysis with the aim of supporting the sustainable transformation in the chemical industry.

Ongoing developments

Clariant has been participating in a project for more efficient hydrogen transport since the end of 2021. Project »AmmoRef« is funded by the German Federal Ministry of Education and Research in the amount of EUR 14 million. It aims to develop ammonia-cracking catalysts and processes capable of industrial-scale and long-distance hydrogen transport. Converting hydrogen to ammonia for transportation and cracking ammonia back into hydrogen at the point of use is an economically viable transportation method. Clariant's role in AmmoRef is to use its profound knowledge of the chemical reactions and catalytic processes to develop new and improved generations of its existing ammonia-cracking catalysts.

Business Area Catalysis

Input

6.5 %
R&D spend of sales

316.8
Raw materials procured in CHF m

29 248
Training hours

626.7
Energy consumption in m kWh

> 95
Active innovation projects

15
Production sites

725
Number of raw materials procured

551
Raw material suppliers

Output

989
Sales in CHF m

14 %
Growth in local currencies

34.0
Waste in thousand t

9.4 %
EBITDA margin

2 161
Staff in FTEs at year-end

0.06
Production volume in m t

NATURAL RESOURCES

General information

In the 2022 financial year, the Business Area Natural Resources offered high-performing products and custom-tailored solutions for the mineral, oil, and gas extraction businesses, as well as for food, plastic, coating, adhesive, foundry, and inks applications. It consisted of three business units: Oil and Mining Services, Functional Minerals, and Additives.

The business area profited from several business drivers:

- stricter global chemical regulations and customer expectations that drive sustainability in oil, mining, and purification as well as circularity in plastic, coating, and adhesive;
- increased demand for minerals and lightweight, sustainable fire safety and thermoresistance requirements for digitalization and e-mobility;
- consumer demand for enhanced health and safety;
- growing regulation regarding biofuels, such as the Renewable Energy Directive (RED II).

Oil and Mining Services

The Business Unit Oil and Mining Services is a leader in the development, manufacture, application, and supply of chemicals. It provides products to over 700 customers in the oil, gas, mining, and refinery industries as well as services for many customers in the oil and gas industries. The largest segment of the business unit is Oil Services. The products are applied at different points in the oil process: drilling operations, completions, and production. They help to prevent corrosion of metal components, to maintain flow, and to separate fluids into clean oil and clean water. The mining products of the business unit are used to separate valued minerals in the processing of mineral ores by flotation and to deal with the waste materials of this process, the so-called »tailings.« The business unit also provides the global mining industry with emulsifiers for explosives, as well as cold-flow additive applications for middle distillates in refineries, including diesel, home heating oils, and biofuels.

Most of these products are customized for the needs of individual mines or oil production challenges. Technical experts from the business unit analyze the customer applications and develop unique solutions. This results in over 5000 custom-made formulations developed using industry insights and state-of-the-art statistical data analysis, combined with high-throughput experimentation methods.

The business unit's customers are located in the major oil- and mineral-producing regions around the world. The production facilities of the business unit are located in Brazil, Chile, the United States, Mexico, Australia, South Africa, Spain, and Germany.

In late 2022, Clariant agreed to enter a definitive transaction documentation to divest its North American Land Oil business to Dorf Ketal, a specialty chemicals manufacturer and service provider headquartered in India. The transaction is subject to customary closing conditions and is expected to be consummated in the first quarter of 2023.

Functional Minerals

The Business Unit Functional Minerals is a leading provider of mineral-based specialty products. It 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. Its production sites are located across the globe, offering over 1 500 products tailored to the needs of more than 3400 customer across a diverse range of industries.

For edible oils and fats purification, for example, the business unit offers Tonsil®, a highly active adsorbent that is 100% natural. Looking back on over a century of success in the market, the product is continually being developed to provide optimum efficiency. In addition, the Tonsil® RNF series offers producers of biofuels and renewable fuels specialty adsorbents for the purification of waste oils and fats to significantly enhance the efficiency and economics of their production process. The product removes impurities that occur in waste oils and fats, thus prolonging the life and efficiency of high-value catalysts further

NATURAL RESOURCES IN THE 2022 FINANCIAL YEAR

OVERVIEW

The Business Area Natural Resources comprises 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 and inks, adhesives, agro and care applications ranging across electrical and electronics, packaging, transportation, consumer goods, building and construction, textile, as well as agriculture industries.

APPLICATIONS

Business Unit Functional Minerals

- Bio- and renewable fuel purification
- BTX catalysts
- Cargo and device protection
- Cat litter
- Chemical recycling
- Civil engineering
- Clay specialties
- Detergent additives
- Edible oil purification
- Feed additives
- Foundry additives
- Kerosene and jet fuel purification
- Paper additives
- PVC stabilizers
- Wastewater treatment

Business Unit Oil and Mining Services

- Chemical delivery and data management systems
- Cold flow improvers
- Emulsifiers for explosives
- Fluid separation
- Froth flotation
- Oilfield integrity management
- Oil flow assurance
- Pelletizing
- Pour point depressants
- Well Service Additives

Business Unit Additives

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

PRIORITY SDGS

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

downstream of the renewable diesel and sustainable aviation fuel production.

Other products of the business unit include GEKO™ natural molding sand additives and ECOSIL™ lustrous carbon former, which help foundries across the globe to achieve precision castings. Furthermore, for customers in need of cargo and device protection, various solutions are offered. DESI PAK® desiccants achieve exceptional results in protecting goods from moisture, and DESVOCANT™ VOC adsorbents help to control and eliminate the accumulation of volatile organic compounds (VOCs) due to the off-gassing of products enclosed in packaging to fully loaded shipping containers. In addition, Container Dri® II cargo desiccants protect shipments from moisture damage. GEKO™, ECOSIL™, and Container Dri® II all carry the Clariant EcoTain® label for products with outstanding sustainability advantages.

Additives

The Business Unit Additives is a major supplier of flame retardants, performance additives, and advanced surface solutions for functional effects in plastics, coatings and inks, adhesives, agro and care applications. With production sites in Europe and China, it produces about 300 different products for approximately 1500 customers worldwide.

The products of the business unit are used in many different applications. For example, the halogen-free Exolit® flame retardants comply with fire safety standards for buildings, electrical and electronic equipment, transportation (including e-mobility), and other applications. AddWorks® solutions are ready-to-use packages that prevent oxidation, dissipate electric charge accumulation, and improve heat, light, and weather resistance. Licocene® stands for advanced surface solutions consisting of polymers and waxes. They provide the right balance of adhesion and cohesion while offering high heat resistance. And the bio-based Licocare® RBW Vita range offers high-performing surface solutions for demanding plastic, coating, and agricultural applications. Made from non-food-competing rice bran wax, these products have a Renewable Carbon Index of at least 98% and contribute to a substantial reduction of CO_2 emissions.

As of January 2023, the Business Units Functional Minerals and Additives are combined into a single Business Unit »Adsorbents & Additives,« while Business Unit Oil and Mining Services has become a part of the new Business Unit »Care Chemicals.« This reorganization is part of the simplified organizational and leadership structure that is outlined in greater detail in the chapter → »Business model and strategy – organizational structure.«

Market dynamics in 2022

In 2022, plastic, coating, and adhesive markets continued to rebound post-COVID-19, but were affected by ongoing disruptions in global supply chains and production shutdowns due to critical raw material shortages and inflationary prices. Sustainability continued to be a main global trend in the markets that are relevant to the business area. The year saw further progress in stricter global regulations and growing customer expectations concerning CO_2 emissions, waste reduction, circularity, and sustainability.

The ongoing recovery of the global industrial sector, especially in transportation, drove growth in the plastic and coating markets in particular. The mining industry also improved, driven by increased mineral production to support electrification, high commodity prices, and an increased focus on improving the sustainability of mining operations. Oil production volumes recovered. However, additional investment in the upstream oil and gas industry is needed to sustain the global production demand and drive the transition to cleaner energies. As the refining industry is also recovering, it explores ways to shift toward bio- and renewable fuels and solutions.

Consumer behavior changed in different ways that are relevant for the business area. This change includes greater concern for health and safety and an increased consumption of vegetable oils. Furthermore, tremendous stimuli from governments and increased commitments from operators, including airlines, were the main drivers for the continued demand for biofuels and, more notably, the strong growth for renewable fuels and sustainable aviation fuel (SAF).

How Business Area Natural Resources created value in 2022

In the full year 2022, sales in the Business Area Natural Resources increased by 25% in local currency and by 20% in Swiss francs, driven by both higher prices and volumes. All three Natural Resources business units contributed to the sales growth, which was observed across all regions. Growth in Additives was particularly strong overall and driven by automotive (e-mobility) as well as electronic applications, among others. Growth in Oil and Mining Services came from increased market demand, most notably in Oil Services, as well as successful price measures. Functional Minerals saw growth in its key business lines, Purification and Cargo & Device Protection especially. The EBITDA margin for 2022 increased to 18.0% from 17.0% year on year as a result of the strong top-line advance, which was propelled by both pricing and higher volumes and thus resulted in improved operating leverage.

New products

In 2022, the business area launched several new products: Licowax® AS 100 TP, a new anti-scratch additive for PP & TPO formulations that helps extend the service life of consumer goods and boosts reuse potential of plastics used in consumer applications. New AddWorks® AGC 970 is Clariant's latest light stabilizer solution for polyethylene agricultural films that offers the mulch segment a step-up in product durability. Licocare® RBW 560 TP Vita is a bio-based wax for reduced cycle times and easier processing of injection-molded polyester compounds. The benefits make it particularly attractive to formulators for use in the E&E and transportation industries. Clariant also introduced new products in the Exolit® OP 1400 series with two new grades specifically to help polyamides meet safety regulations for unattended household electrical appliances – like white goods, for example.

FEATURED STORY

Can biomass waste improve manufacturing efficiencies and circularity?

Licocare® RBW Vita waxes are a positive contribution to a circular carbon economy, carrying Clariant's »Vita« designator because of their exceptionally high share of renewable carbon content – in this case 100 %.

Learn more

In October 2022, Clariant also unveiled a product portfolio for the emerging market of chemical recycling as an advanced solution for plastics that cannot be recycled mechanically. The new Clarit™ adsorbents and HDMax® catalysts are designed for the purification of pyrolysis oil made from mixed plastic waste to achieve cracker-compatible feedstock. The portfolio answers the need for flexible and economical solutions to remove a wide range of contaminants, regardless of process configuration and plastic waste feedstock. Used together, the adsorbents extend the lifetime of the catalyst by reducing impurities. → See also the Catalysis chapter

Q&A

Angela Cackovich
Business President Adsorbents & Additives and EMEA
Member of the Executive Steering Committee

You joined Clariant this year, having held management positions in various international companies before. What have been your impressions so far?
I see a strong collaboration between employees and teams at Clariant. Sharing information and taking all perspectives into account is part of our DNA. Additionally, I see our teams not only having tremendous know-how around technologies, applications, and customers, but also a very professional approach. That is a great basis for capturing the many opportunities in front of us, as our customers need access to renewable materials and to products and solutions enabling circularity.

Your new role here is threefold: You head a newly formed business unit, as well as Clariant's EMEA region, and you are also a member of the Executive Steering Committee. How do you bring these different responsibilities together?
These are not necessarily different responsibilities, as our ongoing transformation process and our resulting changes in the organizational structure resulted in reduced hierarchy and increased empowerment. As a member of the Executive Steering Committee, my responsibility within Clariant is broader, but I also represent the Business Unit Adsorbents & Additives, as well as the EMEA region. Combining these responsibilities works quite well thanks to empowered teams and clear roles and responsibilities in the global business unit and in the regional organization.

What are your plans for the BU?
The key markets of our Business Unit Adsorbents & Additives are changing. Sustainability and the circular economy are big disrupters for our customers' value chains. These developments generate significant opportunities for our sustainable offerings, such as in electronics, e-mobility, packaging, adhesives, food and renewable fuels. We will continue to improve our CO_2 footprint and handprint. We also invest in innovation and assets to grow in applications triggered by regulations, customer needs, and brand owner commitments. In this way, we will achieve above-average growth in our key markets and lead with sustainability-driven innovative solutions.

New initiatives

In the context of the EU plans to phase out all internal combustion engine vehicles by 2035, the three-year EU-funded → Revolution Project brings together organizations from ten countries across the entire automotive value chain. The project is aimed at developing lightweight car parts and increasing circularity by facilitating the recycling of materials and use of recycled polymers. Business Unit Additives helps to validate and develop solutions that push plastic materials beyond current performance and sustainability boundaries and help to meet minimum recycling targets for plastic components in vehicles as expected in the upcoming EU legislation. Solutions from Clariant include additives for maintaining high-quality polymer recyclate and for increasing recycled content in finished lightweight recyclable parts.

In a unique collaboration for the Personal Care industry, Clariant, Siegwerk, Borealis, and Beiersdorf aim to create recyclable consumer packaging for cosmetic applications based on 100 % retrieved plastic packaging waste. The pioneering initiative, named »Design4Circularity,« provides design innovations and insights concerning design for circularity principles. Circular packaging supports reduced plastic waste, less use of virgin plastic material, and reduced climate impact.

As Clariant embraces its new purpose-led strategy, Oil Services introduced new solutions and technologies designed for customers with sustainability at the forefront. As part of this initiative, the business line launched the → D3 PROGRAM – a novel program designed to support carbon reduction and sustainability in the oil and gas industry. The initiative optimizes onshore and offshore operations and introduces more environmentally acceptable formulations as energy demand soars. The D3 PROGRAM embodies Clariant's new direction as a company and provides workable solutions for the energy industry.

New locations

In October 2022, Clariant closed the acquisition of BASF's Attapulgite business assets. The business is well recognized for its unique combination of mineral quality, mine reserve size, and strategic location. The newly integrated site and 70 highly qualified employees will increase the production capacity of Clariant adsorbents in North America to cater for the growing market of renewable fuels purification.

Following the start of construction for its first flame retardant production facility in China, Clariant announced an investment in a second production line in October 2022. The additional investment will further expand access to innovative and sustainable fire protection solutions and related technical expertise. This supports the significant growth of engineering plastics applications in e-mobility, electrical and electronics segments, transportation, 5G communications, infrastructure, and appliances. Clariant is aiming to commence production in Daya Bay around mid-2023, with the second line due to come onstream within 2024.

In October 2022, Clariant launched its Decarbonization Minerals Program. This program is dedicated to helping the mining industry meet the increasing demand for decarbonization minerals and rare earths. Clariant is investing resources to develop new flotation reagents and other processing chemicals so that mining companies can optimize their beneficiation plants. In addition, Clariant's Competence Center for Decarbonization Minerals in Dubai helps customers optimize metallurgical performance, maximize recovery and grade, and create more sustainable solutions for the processing of decarbonization minerals.

Certifications and awards

For more than a decade, DSM Engineering Materials and Clariant Additives have cooperated in a commercial relationship and a deep technical partnership with several joint projects. In the field of sustainability, the companies have had exchanges on product carbon footprint methodologies and are now looking into ways to improve the recyclability of flame-retarded polyamides. In November 2022, Clariant's efforts were awarded the DSM Sustainability Award.

The Business Unit Oil and Mining Services formulations are recognized globally for complying with rigorous environmental regulations. In 2022, Clariant Oil Services was named a finalist in Chemical Week's Innovation Awards for its PHASETREAT WET solution. The product was selected for its novel delivery system, which has a significant impact on sustainable, offshore operations with optimized logistics and dose rates reducing carbon emissions. Furthermore, the business unit was named a finalist in five categories of the 2022 World Oil Awards. The industry awards program honors the best upstream technologies and achievements and celebrates the development of exceptional solutions. Most notably, Clariant was recognized in the Health, Safety, Environment/Sustainable Development Offshore and Onshore Award categories, which are awarded to companies that have made significant strides in protecting and enhancing the environment and communities where they operate.

Ongoing developments

Clariant has extended the existing renewable raw material mass balance certification REDCert² with the International Sustainability and Carbon Certification (ISCC PLUS) for Exolit® OP Terra flame retardants and Licocene® Terra waxes and polymers.

Natural drying is at the core of Clariant's Adsorbents business' climate-neutral and sustainable operations program. In 2022, the Adsorbents business continued to reduce fossil-fueled thermal drying of bentonites by expanding its natural-drying capacity at several sites in Asia and Europe. This resulted in substantial and sustainable CO_2 reductions and significant cost efficiencies through reduced input fuel and maintenance costs. The Adsorbents business will continue to add natural-drying capacity to further reduce the cost and environmental impact of its operations while preserving or enhancing the quality and consistency of the finished products.

Business Area Natural Resources

Input

1.5 %
R&D spend of sales

823.8
Raw materials procured in CHF m

16 165
Training hours

1 161.2
Energy consumption in m kWh

>160
Active innovation projects

40
Production sites

2 390
Number of raw materials procured

1 173
Raw material suppliers

Output

2 110
Sales in CHF m

25 %
Growth in local currencies

189.1
Waste in thousand t

18.0 %
EBITDA margin

3 800
Staff in FTEs at year-end

2.87
Production volume in m t

DISCONTINUED OPERATIONS

On 3 January 2022, Clariant's Pigments business was divested to a consortium comprising Heubach Group and SK Capital Partners.

As the Pigments business was sold on 3 January 2022, no sales were recorded in the full year 2022 compared to CHF 912 million in the previous year. The 2022 net result from discontinued operations was a gain in the amount of CHF 217 million, which mainly resulted from the Pigments divestment proceeds, compared to CHF 81 million in the previous year.

On 1 December 2022, Clariant and SK Capital / Heubach Group entered into an agreement that foresees a CHF 55 million payment to Clariant (due no later than 2029, therefore representing a discounted value of CHF 38 million) as a settlement of the final purchase price for the Pigments business. This agreement resulted in an increased gain on disposal after taxes in 2022 in the amount of CHF 210 million versus CHF 197 million recorded in the first half year 2022.

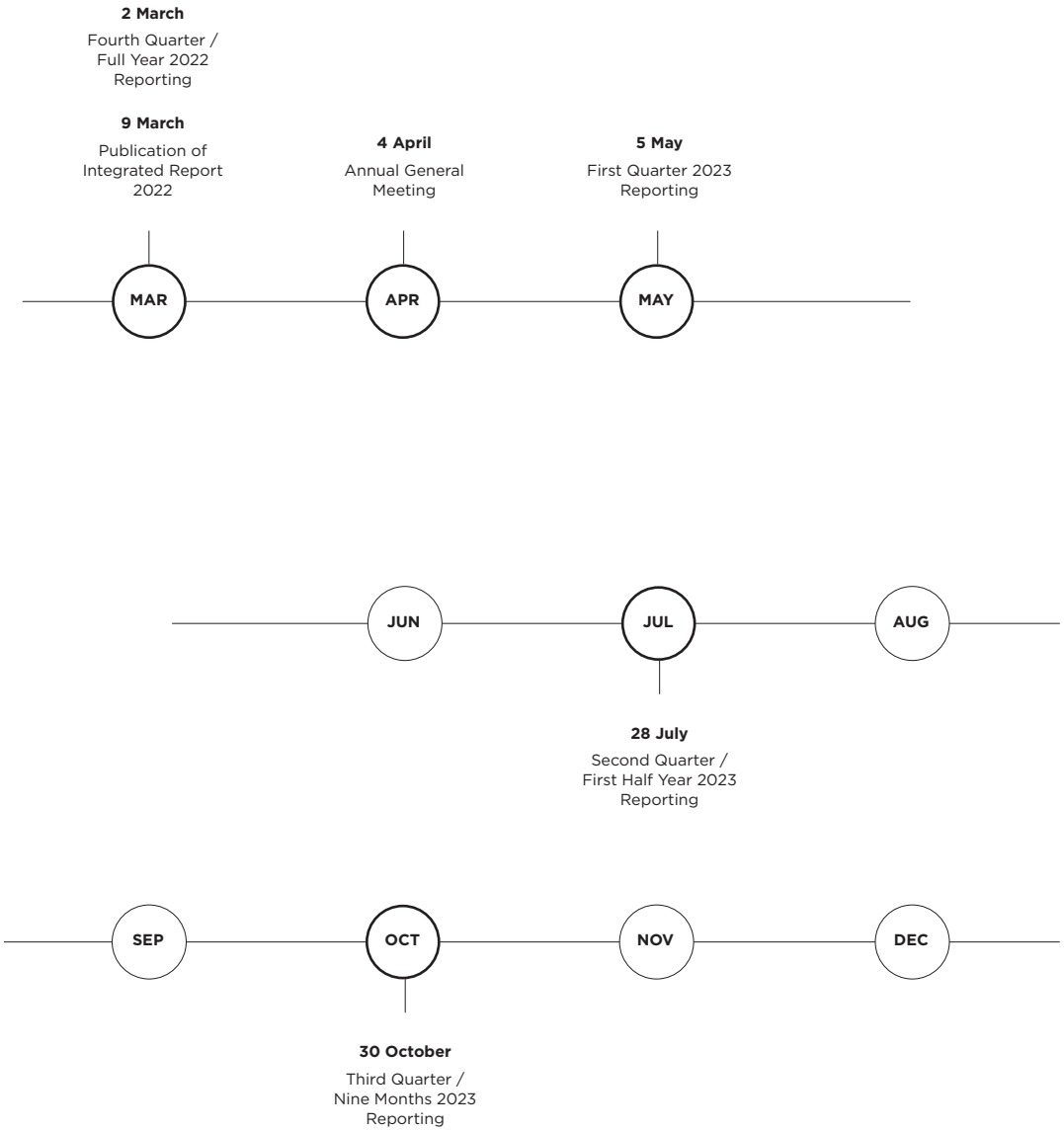
Five-Year Group Overview

CONTINUING OPERATIONS IN CHF M

	2022	2021	2020 [1]	2019	2018
Sales	**5 198**	4 372	3 860	4 399	4 404
Change relative to preceding year					
in Swiss francs (%)	**19**	13	–12	0	–
in local currencies (%)	**24**	15	–5	3	–
EBITDA	**810**	708	597	461	607
EBITDA before exceptional items	**893**	760	623	740	739
EBITDA margin (%)	**15.6**	16.2	15.5	10.5	13.8
EBITDA margin before exceptional items (%)	**17.2**	17.4	16.1	16.8	16.8
Operating income	**72**	440	317	165	348
Operating income before exceptional items	**617**	493	354	444	480
Net result	**–101**	292	130	–34	213
Basic earnings per share (in CHF)	**–0.40** [4]	0.81	0.32	–0.17	0.59
Distribution per share (in CHF)	**0.42** [3]	0.40	0.70	0.55	0.55
Operating cash flow	**502** [2]	363 [2]	369 [2]	509 [2]	530 [2]
Return on invested capital (ROIC) (%)	**1.5**	9.9	7.4	3.0	7.9
Return on invested capital (ROIC) before exceptional items (%)	**13.2**	11.1	8.2	9.0	9.0
Investment in property, plant, and equipment	**209** [2]	357 [2]	288 [2]	273 [2]	237 [2]
Research & Development expenditures	**160**	155	172	207 [2]	209 [2]
Depreciation and amortization	**276** [2]	267 [2]	269 [2]	330 [2]	325 [2]
Net working capital	**757**	693	500	713	1 145 [2]
in % of sales	**14.6**	15.9	13.0	16.2	17.3
Total assets	**6 188** [2]	7 038 [2]	6 932 [2]	7 979 [2]	7 981 [2]
Equity (including noncontrolling interests)	**2 513** [2]	2 544 [2]	2 416 [2]	2 677 [2]	2 970 [2]
Equity ratio (%)	**40.6** [2]	36.1 [2]	34.9 [2]	33.6 [2]	37.2 [2]
Net debt	**750** [2]	1 535 [2]	1 040 [2]	1 372 [2]	1 374 [2]
Gearing (%)	**30** [2]	60 [2]	43 [2]	51 [2]	46 [2]
Employees (in FTEs)	**11 148** [2]	13 374 [2]	13 235 [2]	17 223 [2]	17 901 [2]

[1] Restated
[2] Including discontinued operations
[3] Recommended by the Board of Directors, pending approval at the Annual General Meeting 2023
[4] Including impairments of CHF 462 million

Financial Calendar 2023



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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.

→ Glossary

CLARIANT

2022

Review on Performance, People, and Planet

Greater chemistry

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The Integrated Report consists of five reports that cover important aspects of our business. They can be read in conjunction with each other. Together, the reports provide a full picture of our ability to create long-term value.

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The Review on Performance, People, and Planet is integral to Clariant's Reporting Hub 2022, providing comprehensive information about Clariant's long-term value creation. The review comprises a discussion of the company's material topics regarding Performance, People, and Planet. It has been written in accordance with the GRI standards. In addition, the review is supplemented by information related to the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD) as well as information suggested in the SASB standards for the chemical industry.

Performance

»Our portfolio has proven to be resilient as it addresses key growth trends like bio-based products, decarbonization, and circularity.«

Conrad Keijzer, CEO

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GROWTH ACHIEVED IN 2022

24 %
Sales growth

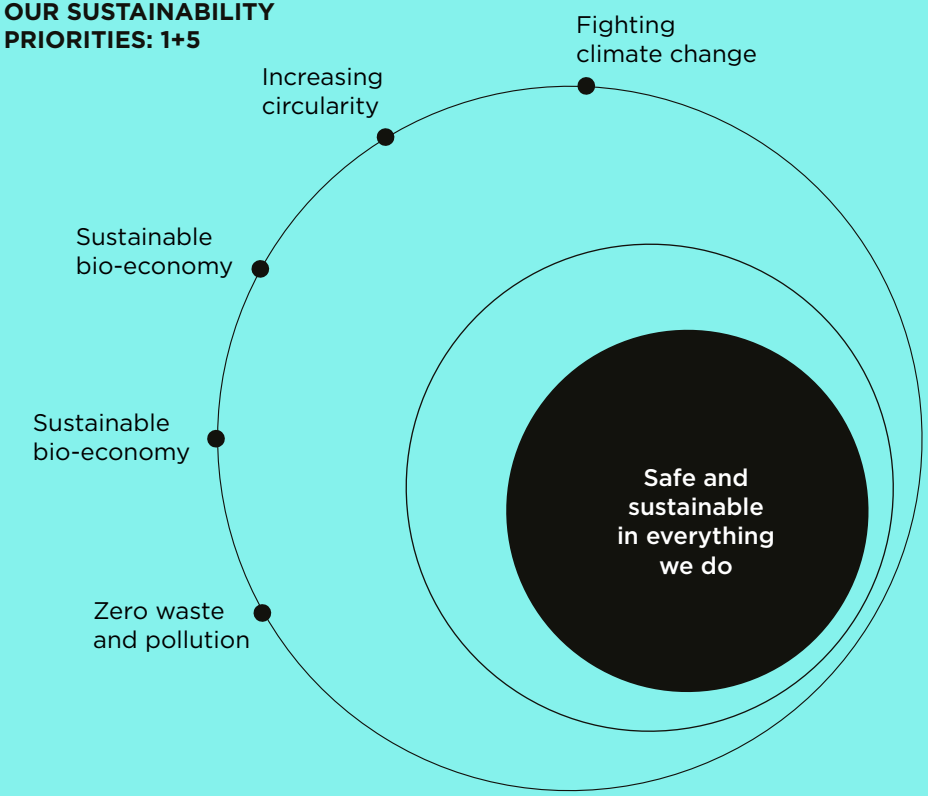
1024
EBITDA in CHF m

19.7 %
EBITDA margin

>5.5 %
Growth through innovation

8.8 %
Sales from EcoTain® products

OUR SUSTAINABILITY PRIORITIES: 1+5



OUR SDG PRIORITIES

BUSINESS GROWTH AND PROFITABILITY

For Clariant, business growth refers to growth in production, services, and revenue. Profitable growth is the basis for the generation of economic value for shareholders, employees, customers, suppliers, local communities, and other stakeholders.

In 2021, Clariant introduced its purpose-led strategy – »Greater chemistry – between people and planet« – based on customer focus, innovative chemistry, leading in sustainability, and people engagement. The company also outlined financial targets for 2025 and non-financial targets for 2030 that reflect Clariant's ambition to achieve top-quartile results in specialty chemicals in terms of growth, profitability, sustainability, and people.

The acquisition of BASF's US-based Attapulgite business assets was concluded in October 2022. This transaction will support the company's path towards reaching its targets and will improve the EBITDA margin profile of Clariant's Functional Minerals business.

Although business growth and profitability are a shared responsibility between all management functions, Clariant's Board of Directors defines the Group's overall direction. It has delegated the executive management of this strategy to the Executive Steering Committee (ESC), which replaced the former Executive Committee as of 1 July, 2022. According to the new leadership model, the Executive Steering Committee comprises the CEO, CFO, and the presidents of the three new business units. It is responsible for implementing, monitoring, and improving the financial and operational management strategy. Clariant's Strategic Management Process (SMP) ensures that each business unit executes the corporate strategy.

Read more about the SMP in the chapter → Growth Opportunities from Sustainable Products and Solutions.

Please consult the Business Report for in-depth information on the → new organizational structure.

PERFORMANCE OVERVIEW

	Continuing operations	Discontinued operations	**Total 2022**	2021
Sales (in CHF m)	5 198	0	5 198	5 284
EBITDA (in CHF m)	810	214	1 024	822
EBITDA before exceptional items (in CHF m)	893	8	901	898
EBITDA margin (%)	15.6	n.a.	19.7	15.6
EBITDA margin before exceptional items (%)	17.2	n.a.	17.3	17.0
EBIT (in CHF m)	72	214	286	553
EBIT before exceptional items (in CHF m)	617	8	624	630
Net result (in CHF m)	–101	217	116	373
Basic earnings per share (in CHF)	–0.40	0.66	0.26	1.04
Diluted earnings per share (in CHF)	–0.40	0.66	0.26	1.04
Operating cash flow (in CHF m)	n.a.	n.a.	502	363
Return on invested capital (ROIC) (%)	1.5	n.a.	n.a.	n.a.
Investment in property, plant, and equipment (in CHF m)	n.a.	n.a.	209	357
Personnel expenditures (in CHF m)[1]	n.a.	n.a.	1 018	1 066
Total assets (in CHF m)	n.a.	n.a.	6 188	7 038
Equity (in CHF m)	n.a.	n.a.	2 513	2 544
Equity ratio (%)	n.a.	n.a.	40.60	36.10
Net debt (in CHF m)	n.a.	n.a.	750	1 535
Gearing (%)	n.a.	n.a.	30.0	60.0
Growth through innovation (%)[2]	>5.5	n.a.	>5.5	>3.5
Research & Development expenditures (in CHF m)	160	2	162	167
R&D spend of sales (%)	3.1	n.a.	3.1	3.2
Patents (year-end)	>4 300	n.a.	>4 300	>5 100
Active innovation projects	>330	n.a.	>330	325
Of which Class 1 Projects with double-digit million sales potential or of strategic relevance	>60	n.a.	>60	65
Scientific collaborations	>65	n.a.	>65	80
Clariant Innovation Centers	3	n.a.	3	3
Research & Development Centers and dedicated Technology Centers	10	n.a.	10	10
Technical Centers	>45	n.a.	>45	45
Production (in m t)	3.80	n.a.	3.80	4.43
Production sites	70	n.a.	70[3]	79
Countries with production facilities	24	n.a.	24	27
Raw material procurement (in CHF m)	2 258	n.a.	2 258	2 352
Raw materials procured (in m t)	3.5	n.a.	3.5	3.67
Raw material supply spend covered by sustainability evaluations (%)	89.2	n.a.	89.2	86.9

[1] Including own employees and external staff

[2] 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.

[3] Two sites that are not in the reporting scope are excluded from the count

Please consult the Business Report for in-depth information on → Clariant's targets for growth and profitability.

Please consult the Business Report for in-depth information on how → Clariant's three business areas contribute to the company's growth and profitability.

Please consult the → Financial Report for in-depth information on 2022 sales and earnings figures.

Please consult the → Compensation Report for in-depth information on incentives for Clariant's Management to achieve the corporate targets.

ENGAGING IN GROWING AND EMERGING MARKETS

Clariant engages in growing and emerging markets, particularly in China and India. These markets enhance Clariant's global growth potential. Oxford Economics forecasts that the nominal CAGR of the specialty chemicals sector will be 6.2% in advanced economies, but 8.6% in China and 9.7% in India. Clariant also plans to allocate more capital expenditure to growing regions – like Asia and North America – in the years up to 2025. For example, in 2022, the company announced two new investment projects in Daya Bay (China) for Care Chemicals and Additives, summing up to CHF 120 million.

By engaging in growing and emerging markets, Clariant develops deeper customer relationships on a global basis. Greater global market penetration also helps to innovate in accordance with local customer needs and to outcompete local rivals.

Clariant's customers in India and China are located in various steps of the value chain: Business Unit Catalysts sells mainly to base chemical and polymer producers. As China and India enhance their domestic production capacities, Clariant catalysts will be in great demand there. Business Area Care Chemicals sells largely to producers of consumer applications. Business Area Natural Resources helps industrial customers to meet changing consumer demands, for example, with adsorbents for edible oil purification. In this sector, Asia-Pacific is one of the company's major markets. Additives like Exolit® are used in energy storage systems of electric vehicles or for fire security of 5G technology.

In 2022, Clariant's sales in Asia-Pacific remained resilient and grew by 21% in local currency while recording notable growth in India (21%) and China (23%). Sales in China alone amounted to CHF 572 million, which represented approximately 11% of Clariant's global continuing business sales. Latin America also increased revenues by 31% in local currency. Following the positive trend of the other regions already mentioned, Middle East and Africa grew by 26%.

Management approach

Clariant's Strategic Management Process addresses global growth and capital expenditures for four main regions: APAC (Asia-Pacific), EMEA (Europe, Middle East, and Africa), LATAM (Latin America), and NORAM (North America). In addition, all business units develop strategic business plans that address objectives and specific strategic initiatives for these four regions and for China in particular. Also, each business unit management committee – except that of Business Unit Oil and Mining Services – has one representative with responsibility for China.

Clariant applies a differentiated steering approach to allocate capital, innovation, human resources, and M&A to businesses with an attractive market outlook. This means investing in areas where the company is already strong or closing gaps where Clariant aims to improve its position.

In 2023, Clariant will transfer the President of its Care Chemicals business to Charlotte, USA, and the President of its Catalysts business to Shanghai, China. This increases senior management focus on these growth markets.

Clariant aims to grow its business globally by leveraging its product portfolio and customer base across all regions. Some products have particularly strong growth potential in certain regions, such as DEPAL flame retardants in China for electronic and e-mobility applications and CATOFIN® in China for propylene dehydrogenation units. There is also a demand for bio-based ethoxylate materials globally from the Clariant IGL Specialty Chemicals JV in India.

In 2022, Clariant closed its acquisition of the BASF Attapulgite business based in the USA to enable it to significantly expand its North American Adsorbents business. Clariant also announced that it would invest in a second flame retardants line in Daya Bay, China, to support rapidly growing local demand for flame retardants for the electronics industry.

China

Clariant has for many years been following a growth strategy in China. The company conducts profitable business there and experienced a high single-digit annual average growth rate over the last five years. Clariant plans to grow further and expand its footprint in China to outgrow the market. By producing locally, transport emissions will be reduced on imports from other production sites.

Catalysis is the company's biggest business, serving the petrochemical industry with catalysts for several chemical process improvements. The plastic industry is served by the Additives business with flame retardants which are used in the electric and electronic industries. Clariant is also a leading supplier of bentonite clay to the foundry industry. Closer to the end consumer, the Care Chemical business is a supplier of a vast range of products for the personal and home care industry, but also serves the construction, automotive, and agricultural industry.

Clariant already reached its sales targets in China for 2023 in 2022, mainly due to price increases. The company also intends to improve its year-on-year Group EBITDA margin levels despite the increasingly challenging economic environment. In the medium term, Clariant aims to increase its sales share share from 10 % in 2020 to 14 % in 2025 and to enhance the local production rate from 35 % in 2020 to 50 % in 2025. Growth will be driven by the Business Units Care Chemicals, Catalysts, and Adsorbents & Additives, which serves the growing electric vehicle market.

Today, China already accounts for about 28 % of the global specialty chemical market. Also, 40 % of the global growth for specialty chemicals between now and 2025 is expected to come from China.

An increasing share of Clariant's products for the Chinese is produced domestically, which meets China's drive for self-sufficiency and avoids supply chain issues and cost differences for Chinese customers, even more now with the high energy prices. Given the strategic investments in Chinese capacities, this share is expected to grow even further. Clariant has the vision of supporting the high-quality growth of China with sustainable and innovative solutions.

Clariant is determined to become a »China insider,« using its understanding of the local market and customer needs for local innovation and local decision-making. Clariant offers solutions that are not easy to copy and sells specialties with limited local competition, like catalysts and green surfactants. For more commoditized products, for example, in the pigments business, competition in China is very intense with high pressure on margins.

As of the end of the reporting year, Clariant was operating a total of nine production sites and three technical centers throughout China, with approximatively 1 000 employees. With the company's One Clariant Campus and China Innovation Center, it is able to speed up its product development processes and increase its abilities to fulfill the specific needs of its Chinese customers with innovative and sustainable Clariant solutions. The company believes that stronger innovation capabilities and the increased manufacturing footprint in China will help to achieve its targeted increase in the China sales contribution to the entire Clariant Group.

Clariant hosts TechConnect China on One Clariant Campus

In 2022, One Clariant Campus hosted the event TechConnect China, which aims to promote cross-departmental. and cross-business technical exchanges to identify opportunities for innovation and cooperation. During the technical gathering, the suppliers' sustainability award and the winners of the Innovation Star of Clariant China were also announced.

Sustainability policy in China

With the fourteenth five-year plan (2021–25) and related policy announcements, China has raised its level of sustainability in chemicals significantly. The country now plans to achieve carbon neutrality by 2060. Therefore, it enhances investments in carbon emission reduction, especially in energy supply and mobility. There is a significant customer pull for sustainable solutions for a smaller carbon footprint. This entails huge growth potential for Clariant, for example, with next-generation catalysts that diminish the production of carbon dioxide.

China has also established a nationwide mandate for a share of renewable ethanol in transportation fuels. The Business Line Biofuels & Derivatives profits from the ensuing demand for advanced biofuels with its low-emission product sunliquid®.

Finally, China's environmental policy aims to move chemical production sites to specialized zones with a shared centralized wastewater and hazardous waste treatment infrastructure. Off-gas and wastewater standards in China are often stricter than in Europe or the US. Clariant welcomes strict laws and their execution to avoid competitive disadvantages. It is an early adaptor of high standards and sees its efforts rewarded when all competitors must comply with strict legislation.

Business framework in China

The legal and regulatory environment in China has become more favorable in terms of acquisitions. For example, it is no longer mandatory for foreign companies to establish a joint venture structure. China even promotes fair competition between domestic and foreign enterprises and protects the interests and rights of enterprises with foreign investment. In 2022, Clariant sold products to both multinationals and domestic companies in China.

Since the 2014 free trade agreement between China and Switzerland, the protection of Clariant's intellectual property in China has improved gradually. China has issued several intellectual property law updates and reached a new level for infringement penalties.

Clariant has an excellent reputation in China in terms of sustainability, innovation, and corporate citizenship. The company is committed to plastics recycling along its value chain and to advocacy for its EcoCircle initiative with sustainable products, solutions, and partnerships. These efforts earned Clariant several awards and helped the company to attract young Chinese talents.

Sustainability training in China
Nearly 200 employees participated in various trainings in 2022 putting an emphasis on Clariant´s Key Sustainability Focus areas and the sustainability-driven value propositions in the portfolio.

Projects in China

Clariant started production in a new production facility for CATOFIN® catalysts in Jiaxing, Zhejiang province. Since 2022, the plant has addressed the strong growth in the propane hydrogenation market in this region. It produces a key product that is driving Clariant's growth and is the most digitized Clariant facility to date, using sophisticated automation systems throughout the production process. These catalysts help to convert propane into propylene, which is used, for example, to produce plastics.

Investments in innovative and sustainable flame retardants
Clariant's number one sustainable and innovative product in China is the halogen-free flame retardant Exolit® OP used in electrical vehicles, for which China is the biggest market in the world. With sales having doubled in 2022, Clariant announced that it would build. Exolit® OP factory. Before, the company had already started enhancing its existing flame retardant production facility in Daya Bay, Guangdong province. These two investments will allow the company to respond to the rapidly growing demand from the Chinese and Asia-based electrical and electronic equipment industries. By establishing local production capacities for its innovative and sustainable Exolit® OP range of flame retardants, Clariant significantly reduces time-to-market.

To meet emissions regulations, Clariant also collaborated with Jiangsu Jinneng, a specialist in volatile organic compound (VOC) abatement technology in Zibo, Shandong province. The phthalic anhydride plant of Shandong Qilu Plasticizers Co. Ltd. uses Clariant's EnviCat® VOC catalyst to purify production off-gases, thereby removing 99 % or more of VOCs and carbon monoxide.

In Care Chemicals, Clariant continues to look for opportunities to both expand and upgrade its Chinese business, including potential further investments in local manufacturing. Clariant announced an investment to expand its production capacity for personal and home care, as well as industrial applications, in Daya Bay, China. The enhanced ethoxylation plant will also enable the introduction of new products. As a result, it will step up its production of more sustainable ingredients that can help customers advance their environmental targets and create differentiated, more sustainable solutions to meet sector demands.

The One Clariant Campus in Shanghai is one of Clariant's major projects in China. Since 2022, it has been fully operational, and the laboratories have been finalized. It is an integrated operational headquarters in the region, an innovation facility to strengthen Clariant's position in the country, and a chance to enhance the company's market position. The facility combines technological knowledge and local support. It has become a platform to exchange with customers and vendors and already played a key role in the development of products for the local market, including, for example, sustainable additive solutions for China's growing plastics, coatings, and adhesives industry.

First OCC Safety Week on One Clariant Campus
During the 2022 China National Safety Month, Clariant hosted its first OCC Safety Week in order to get closer to achieving the goal of zero accidents by building a safe culture together. The various activities included courses and trainings in office safety, ergonomics, firefighting, first aid, AEDs, and safety devices. Clariant offered practice and drills in using fire extinguishers, first aid, AEDs, and protection equipment. Topics included leadership sign-off and safety commitment, among others. Various safety awards included »Best Slogan, Online Safety Knowledge Competition Top 10, Best Safety Deviation Report, Special Contribution Award during OCC Lockdown«, two competitions were carried out on site. In a lab area, ten best practices were shared.

India

Clariant is committed to supporting its Indian customers with the complete range of its product portfolio. This commitment is well in line with the governmental initiatives »Make in India« and »Self-Reliant India« as Clariant continues to focus on strengthening its own manufacturing facilities in India and expanding its service hubs to cater to global Clariant operations. Clariant is confident that it can contribute to the rapidly growing local market in India across all businesses – Adsorbents & Additives, Care Chemicals (through its joint venture, Clariant IGL Specialty Chemicals Private Limited), and Catalysts (through its joint venture with Sud Chemie India Private Limited).

Projects in India

In 2022, the 51%/49% joint venture with India Glycols Limited, under the name of Clariant IGL Specialty Chemicals Private Limited, became fully operational. It produces and markets ethoxylates based on ethylene oxide from bioethanol. They meet the diversified needs of various end-use industries, for example, the textile, pharmaceutical, personal care, emulsion polymerization, paint, detergent, automotive, and agrochemical industries.

This joint venture gives Clariant a strong position in the Indian ethoxylate market and turns the company into one of the leaders in the global market for green ethylene oxide derivatives and bio-based ethoxylates for home and personal care.

India Glycols will contribute its renewable bio-ethylene oxide derivative business. This includes a multipurpose production facility with an alkoxylation plant in Kashipur, Uttarakhand. Clariant will contribute its local Industrial and Consumer Specialties business in India, Sri Lanka, Bangladesh, and Nepal, as well as a payment of a mid-double-digit million amount. Like this, the joint venture allows Clariant technology to be leveraged with low-cost manufacturing.

Clariant expects the collaboration to deliver profitable growth in the next few years. For the 2022 financial year, Clariant IGL Specialty Chemicals Private Limited generated revenue including exports, which contributed positively to the top line of the Business Area Care Chemicals.

With regard to ethics, environment, safety, and health, the joint venture will follow the higher of the standards of Clariant or India Glycols.

Since 2021, Clariant has also strongly leveraged its 2017 catalyst joint venture with SCIL in India. It serves both to access the fast-growing local market for emission catalysts for two- and three-wheelers and to form a global manufacturing base for Clariant catalysts.

Clariant's global IT hub in India

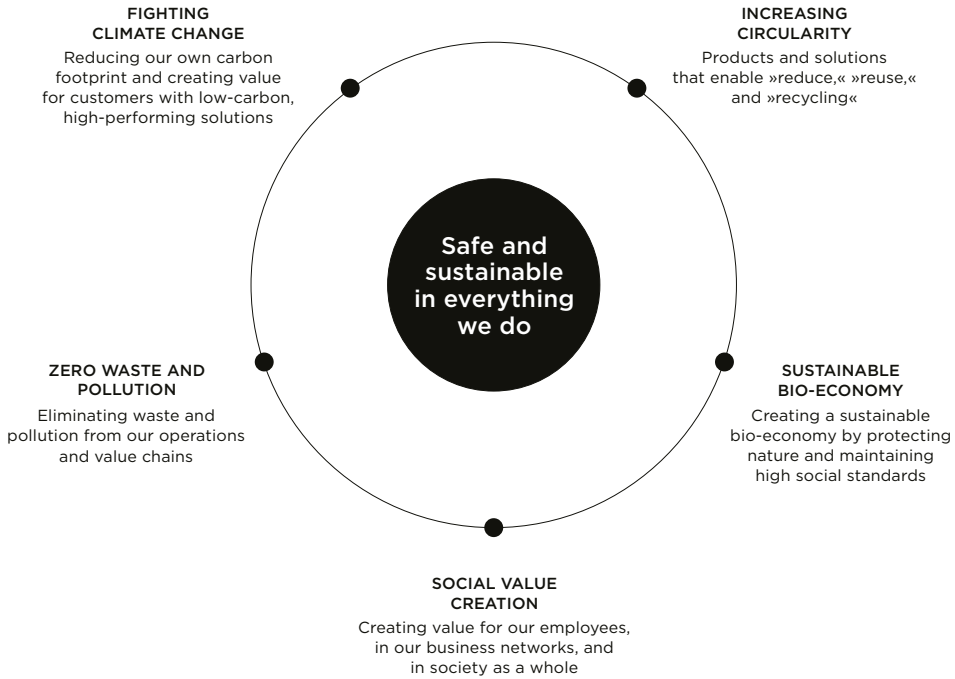
Clariant is further expanding its IT hub in Airoli/Mumbai which was created in2021. The IT hub focuses on all IT aspects including the development, implementation and support of global business applications and IT infrastructure in addition to the needs of the local businesses in India.

GROWTH OPPORTUNITIES FROM SUSTAINABLE PRODUCTS AND SOLUTIONS

There is an increasing demand for sustainability in all industries that Clariant serves. With its focus on innovative, sustainable, and bio-based chemicals, the company is in an excellent position to benefit from this ongoing shift. Its products and solutions also help customers to achieve their targets for the reduction of greenhouse gas emissions.

The activities in the 2022 business year were marked by transforming Clariant operations as well as focusing on the sustainable transformation of the Clariant portfolio. Increasing the safety and sustainability of Clariant products and solutions activates the company purpose »Greater chemistry – between people and planet.« Clariant uses its scientific expertise and innovative power to offer products and solutions for major sustainability challenges of these times, taking into account the sustainability goals of its customers as well. Developing growth opportunities from sustainable products and solutions therefore directly supports three interconnected focus themes of the purpose-led strategy: These are customer focus, innovative chemistry, and leading in sustainability.

001 **SUSTAINABILITY PRIORITIES**



Clariant strives to be safe and sustainable in all activities. Clariant has made it a priority to set and refine its sustainability strategic approach in 2022 with the so called »1+5 focus areas.« The Group's efforts center around the ambition to be safe and sustainable in everything Clariant does. This comprises not only the target of zero accidents, but also the development of a safe and sustainable product portfolio. Based on this foundation, there are five key focus areas: fighting climate change, increasing circularity, fostering a sustainable bio-economy, eliminating waste and pollution from operations and value chains, and creating social value. Social value includes fostering the development of employees as well as creating value in the business networks and in society as a whole.

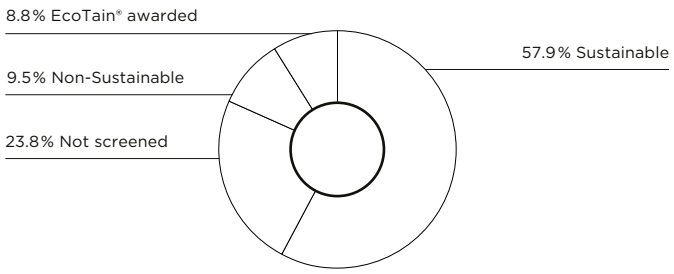
Like in the previous year, Clariant's ambitions gained external recognition again in 2022 as Clariant was listed in the Dow Jones Sustainability Indices (DJSI).

→ Read more about new Clariant products launched in 2022 with significant sustainability benefits.

Management approach

The Global Innovation and Sustainability Council shapes Clariant's agenda on sustainability-driven portfolio transformation. To emphasize the strong connection between innovation and sustainability, Clariant established a Sustainability Transformation department in 2020 with the responsibility to fully integrate sustainability in the company's products and processes.

002 **TARGET CLASSIFICATION OF 2022 SALES**



Since January 2021, the Service Unit Group Innovation and Sustainability (GIS) has bundled both topics under one roof to align Clariant's innovation management practices with its sustainability programs. GIS establishes Group-wide innovation and sustainability policies, strategies, and standards and coordinates their implementation. In 2022, Clariant strengthened the integration of innovation and technology by introducing a Chief Technology & Sustainability Officer, reporting directly to the CEO. The Chief Technology & Sustainability Officer is the chair of the Global Innovation and Sustainability Council. He is not only responsible for the Sustainability Department, but also has a direct reporting line to the Innovation Champions in the business units, and through this is reinforcing steering of the innovation portfolio towards increased sustainability.

- Read more about the »Innovation Champions« in the chapter → Innovation & Technological Advances.
- Read more about the committees in the → Corporate Governance Report.

While business units remain responsible for developing new business opportunities, GIS provides service and support on best-in-class innovation approaches and emerging technologies and systematically evaluates the sustainability profile of innovation projects.

Clariant's sustainability transformation has also become a cornerstone of Clariant's Strategic Management Process (SMP), through which the company continuously monitors the performance of its management system and identifies improvement potential. The innovation and sustainability progress toward the strategic targets is reviewed on a quarterly basis in the Global Innovation and Sustainability Council (GISC), comprising the CTSO, the innovation heads of the BUs, key functions as well as the CEO and the board delegate of the Innovation and Sustainability Committee as permanent guests. The conclusions are further reported to the Innovation & Sustainability Committee (ISC), a board subcommittee tasked with the oversight of innovation and sustainability matters, including climate risk management.

→ Read more on Clariant's progress on strategic targets.

GIS sustainability priorities 2022

- Strengthen the focus on »1+5« sustainability key areas
- Climate: release of new tool CliMate, Scope 1, 2, and 3
- Bio-economy: engage with ASD/supplier evaluation
- Portfolio Value Program 2.0
- Internal trainings and workshop to increase sustainability understanding

→ Read more in the chapter Innovation and Technological Advances.
→ Read more in the chapter Circular Solutions.
→ Read more in the chapter Bio-Based Economy.
→ Read more in the chapter Climate Protection.

Clariant's main policies and guidelines relating to growth opportunities from sustainable products and solutions are:

- Sustainability Policy
- Human Rights Policy Statement
- Code of Ethics
- NDPE/Palm Oil Policy
- Supplier Code of Ethics

Clariant engagement in the public policy dialogue

Public policies are increasingly driven by sustainability imperatives, as is the case under the Green Deal program at the EU level and in other important economies on the global stage.

As a responsible corporate actor, Clariant aims to ensure an open and transparent dialogue with policymakers, business associations, as well as NGOs, in a number of strategic policy areas, including sustainable chemistry; climate change and the energy transition; clean mobility; the bio-economy; and the circular economy.

The engagement of Clariant representatives in business associations, industry coalitions, and sustainability supports strategic alignment across the industry and provides an opportunity to exchange industry perspectives and best practices.

Acknowledging the urgency of accelerating the transition to a safer, low-carbon, and more circular economy, Clariant supports ambitious, science-based policies. Clariant is actively contributing to address regulatory and societal expectations by bringing forward innovative and sustainable solutions. It is therefore key that such solutions are supported and valorized under adequate policy frameworks.

External policy-related engagements are supported within Group Innovation & Sustainability by Government Affairs and Advocacy, as well as subject matter experts in sustainability topics and product stewardship where Clariant takes an active role in shaping sustainability tools, approaches, and policies.

To foster internal knowledge, advise on Clariant strategy, and expand the engagement with external stakeholders, the company has also established Clariant Policy Dialogues in 2021, a webinar series featuring external policy or sustainability experts (value chain players, industry associations, academics, and NGOs) presenting their perspectives and recommendations. Clariant engaged in four Policy Dialogues in 2022, covering, for example, the United States Inflation and Reduction Act (IRA), China's race towards carbon neutrality, and the new policy incentives in support of sustainable aviation fuels (SAFs).

To enhance the sustainability dialogue with external stakeholders, Clariant co-organized a → EURACTIV conference in Brussels to promote ambitious climate policies and the role of advanced biofuels in transport.

Growing demand for sustainability products and solutions

Consumer and customer demand for sustainable products increased again in 2022. In response to this development, Clariant continuously brings forward sustainable solutions that do not compromise on performance or on the company's commitment to fulfilling customer needs. That is why Clariant's innovation portfolio has shown particularly robust performance over the past few years and the total sales from innovation* have increased.

The share of consumers that consider sustainability criteria when buying products continues to increase. In addition, in 2022, Clariant experienced an expansion of industrial goods companies taking sustainability criteria into account in their buying decisions, most frequently to lower their carbon footprint. These trends are expected to endure in the future, driven by new disclosure obligations requiring publicly traded companies to report their carbon footprints, as well as increasing pressure to back up sustainability claims of products by robust data.

Clariant's customers face challenges surrounding climate change, plastic waste, and overall circular economy needs. Clariant's sustainable products help them to achieve their sustainability targets, decrease their environmental footprint, and comply with existing and anticipated policies and regulations.

Customer dialogue

To be informed and ensure regular updates, for Clariant, open communication with customers is critical to address emerging needs and trends in its business environment. This information is essential to bring forward solutions that serve customer needs. During the pandemic, Clariant's digital capabilities and channels – including e-commerce – have become increasingly important. Customer dialogue in the past years revealed a growing demand for innovative and sustainable solutions to meet efficiency goals. Demand for products with a lower carbon footprint and favorable hazard profile is strong, particularly in emerging sectors like electric vehicles and renewable energy.

→ Read more in the chapter Customer Relationships.

*Products five years or less after market launch

Sustainable growth strategy

As a part of Clariant's aspiration to strive towards sustainability leadership, the target is to generate 1–2% annual growth from sustainability-driven innovation by 2025 by developing bio-based products, enabling decarbonization, and promoting circularity. These efforts are leveraged in Clariant's → 1+5 sustainability priorities. In 2022, Clariant continued to work on reducing the use of hazardous substances and on promoting alternatives that are safer than required by regulation. This approach is particularly important in regions where regulatory action is lagging.

Clariant has set itself → sustainability targets for climate protection, as well as in the areas of circular plastics and the bio-economy. Packaging has been designed to create a cleaner waste stream in existing recycling infrastructure and to create a circular economy with full recyclability. The project was awarded the Sustainable Packaging Award.

→ Read more about this project in the chapter Innovation and Technological Advances.

For plastic waste unsuited for mechanical recycling, Clariant launched a product line of new HDMax® catalysts and Clarit™ adsorbents to achieve cracker-compatible pyrolysis oil in chemical recycling.

Another example is the D3 Program, a coordinated effort in the Oil Services product portfolio to identify and pursue opportunities to decarbonize, densify, and detoxify products using innovative technologies. These efforts will lead to lower Scope 3 emissions from raw materials, as well as logistics, and an elimination of substances of high concern from Clariant's products.

In view of this strategy, Clariant will continuously keep reviewing its portfolio for potential improvements and upgrades as the company had been doing over the last years already.

Portfolio Value Program (PVP)

The Portfolio Value Program (PVP) is Clariant's portfolio sustainability assessment, based upon which Clariant evaluates the sustainability profile of its product and project portfolio and identifies sustainability improvement opportunities, best-in-class products signaled with Clariant's EcoTain® label, sustainable and non-sustainable products, as well as transitional products. It is also a key tool to support the center sustainability focus filed from the 1+5 sustainability priorities: Safe and sustainable in everything we do.

The PVP methodology was initially developed in 2012 to support Clariant's transition toward a more sustainable portfolio. In 2022, a new version of the PVP was launched, reflecting the company's significantly increased sustainability ambition.

Clariant's PVP is not only aligned with the industry standard provided by the World Business Council for Sustainable Development (WBCSD), called PSA (Portfolio Sustainability Assessment), but Clariant is also actively contributing to the update of WBCSD's framework for portfolio sustainability assessments as member of the working group developing the methodological update according to the EU Green Deal and other initiatives.

The PVP update therefore considers new trends and stakeholders' expectations, but also anticipates upcoming requirements, especially those deriving from the European Green Deal. It provides more accurate and credible information about the performance of the Clariant portfolio. This enables Clariant and its customers to have a deeper understanding of the products across all life cycle phases, effects, releases and emissions of products and services, enabling Clariant to move toward zero pollution for air, water, soil, and biota.

Similar to the original version, the methodology includes a twofold assessment comparing products to the current industry standard as well as to absolute sustainability criteria. Every product is thus assessed systematically across its life cycle on their impact on the environment and society, as well as its performance, using 39 screening criteria. The methodology criteria were updated to reflect the latest understanding of sustainability criteria being developed in the EU chemicals strategy for sustainability (CSS), the Safe and Sustainable by Design (SSbD) initiative, as well as in the update of the Portfolio Sustainability Assessment methodology (PSA). Clariant is actively participating in the industry discussions about implementation of these new sustainability methods and tools.

The assessments are performed by a multidisciplinary team, which allows the capture of different aspects of the products, such as product safety, sustainability contributions, comparison against next best alternative, and others. All PVP assessments are conducted in a bespoke online tool called myPVP, where historical information is also archived.

Following the launch of the PVP update, the business units, in collaboration with Sustainability Affairs, started to develop rescreening roadmaps to review all screenings already performed according to the new criteria. The portfolio is regularly reassessed according to the categorization.

In addition, in 2022 a series of training sessions was set up for different internal stakeholders, such as technical, sales, and marketing experts. Over 70 people were trained in the new methodology. A »Lunch & Learn« in November 2022 was dedicated to sharing insights into sustainability trends and how companies like Clariant navigate current challenges and keep their product portfolio fit for the future, which included an overview of the new PVP methodology for over 100 employees worldwide.

PVP steers sustainable product design and upgrades the portfolio toward increased sustainability; sustainability checks are deeply embedded in all stages of Clariant's innovation process (Idea to Market), with the full PVP screening being performed before commercialization.

003 **PVP CATEGORIZES THE CLARIANT PORTFOLIO IN FOUR CATEGORIES**

ECOTAIN®	SUSTAINABLE	TRANSITIONAL	NON-SUSTAINABLE
Front-runners of the market segments standing out for their sustainability excellence performance, and which can be distinguished by Clariant's EcoTain® label	Products with a positive sustainability contribution – which, however, typically goes beyond the regulatory requirements	Products for which there are sustainability issues actively being addressed, which means R&D projects, replacement of product with an alternative, amongst other options	Products falling below the Clariant sustainability standard, which then become part of an »Improvement Roadmap« and are closely monitored

004 **KEY FOCUS AREAS REFLECTED IN PVP 2.0**

PVP 1.0
- — Analysis along Performance, People, and Planet
- — No differentiation of products according to use phase
- — Limited analysis of circularity
- — Limited focus on raw materials
- — No focus on footprint

PVP 2.0
- — Analysis from raw material to end of life (value chain)
- — Differentiation of industrial vs. professional/consumer use
- — Considers circularity internally and across the value chain
- — Increased background information on raw materials
- — Systematic identification of handprint benefits

According to the product classification, periodic rescreenings are carried out: EcoTain® products are rescreened every two years and sustainable products every five years, while Transitional and Non-Sustainable products have yearly checks.

Internal labels

The best-performing products in the PVP are awarded the EcoTain® label by a panel of Sustainability Transformation, Product Stewardship, and regional sustainability functions, called the EcoTain® panel, which usually takes place four times per year. In 2022, two EcoTain® panels took place. Since the launch of EcoTain®, more than 200 products have been awarded the label. EcoTain® sales have been continuously increasing over the years. In 2022, they accounted for approximately 9 % of total sales, considering continuing business, a number which is targeted to further increase in the years to come.

In 2019, Clariant launched its sustainability designators, which enable customers to identify products with key sustainability advantages. Designators were assigned to 128 products in the reporting year. Also in 2022, customers increasingly appreciated the transparency given by the designators.

2 EcoTain Panels in 2022

Due to the methodological revision of the PVP, the number of panels was reduced to two. The first panel at the beginning of the year still related to the original methodology, whereas the second at the end of the year was based on the revised set. Resulting from these panels, five new products gained the prestigious EcoTain® Label:

- Dispersogen®
- H2Max®
- Plantasens® LS6
- Prenylium®
- TexCare® Gemini

SUSTAINABILITY PORTFOLIO CLASSIFICATION

	Continuing operations	Discontinued operations	**Total 2022**	2021	2020	2019	2018
EcoTain® awarded products	6	0	6	18	24	27	24
EcoTain® withdrawn products	0	0	0	3	15 [3]	0	0
Cumulative number of EcoTain® products	215	0	215	243 [4]	228 [1]	204 [2]	193
Product portfolio screened for sustainability performance (sales %)	77	0	77	78 [2]	76 [2]	76 [2]	76
Screened products meeting internal sustainability definition (%)	68	0	68	68 [2]	67 [2]	68 [2]	68 [2]
Screened products not meeting internal sustainability definition (%)	9	0	9	10 [2]	10 [2]	8 [2]	8

[1] Restated due to EcoTain® withdrawals
[2] Number refers to continuing businesses only.
[3] Number refers to discontinued businesses.
[4] Number contains 34 products of discontinued business.

Dispersogen® is a label-free blend of polymeric dispersing agents that can be used for a wide range of organic and inorganic pigments, offering significant reductions in supply chain complexities. Due to its active content of 100 %, it allows superior formulation performance and reduces undesired side effects that occur during pigment paste and paint preparation with conventional surfactants.

H2Max® catalysts are optimized for the purification of terephthalic acid (PTA) to remove impurities. The H2Max® series is a more economical solution, as it demonstrates significantly lower loss of costly palladium during operation compared to state-of-the-art catalysts, besides it is free of human and environmental hazard labels, allows high reclaiming rate of Pd from spent catalyst and the catalyst carrier is manufactured with non-food-competing renewable raw materials.

Plantasens® LS6, a versatile emollient developed from sustainably sourced and biomimetic ingredients, is able to respond to different skin types. It has a close composition to skin lipids to naturally rebalance the natural sebum composition and offers an excellent affinity for the skin. Each component of Plantasens® LS6 has been carefully selected from valuable heritage plant oils and is 100 % bio-based.

Prenylium® is a Morus alba tree root extract obtained by the Plant Milking technology allowing the cultivation of plants in aeroponic condition. This sustainable technology enables the exploration of unsourceable plant parts, such as roots, without destroying tree. In addition, through an innovative process used to stimulate the growth of the roots, the content of targeted molecules is increased.

TexCare® Gemini, a high-performing soil release polymer with rheology control technology for liquid laundry detergent, removes the need for readjusting viscosity with supplementary thickeners. This eliminates the respective additional costs and reduces formulation complexity.

Sustainability recognition

Clariant's efforts in the market are also reflected in a number of different sustainability awards. → Read more about these in the chapter Innovation and Technological Advances.

Raw materials

Clariant strives to increasingly use biomass as a renewable feedstock. This development is in line with the growing demand for sustainable products from customers and consumers. Clariant also anticipates a stricter regulatory environment.

Clariant's suppliers offer more sustainable solutions as well. The company cooperates with them to identify sustainable feedstock sources and lower-carbon footprint raw materials, such as ethylene and ethylene oxide. Particular emphasis is also on the responsible sourcing of conflict minerals. Clariant investigates allegations of violating its sustainability commitment in the supply chain.

Clariant IGL Specialty Chemicals produces and markets ethoxylates based on ethylene oxide from bioethanol.

→ Read more about this joint venture in the chapter Projects in India

CORPORATE GOVERNANCE

Corporate Governance comprises Clariant's governance structure, ownership, and control, as well as internal rules, processes, and practices. It ensures fair competition and establishes the corporate culture.

Clariant's governance principles aim to promote sustainable long-term success by providing stakeholder value and transparency. 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.

In 2022, the Group conducts its business through five business units:

- Additives
- Catalysts
- Functional Minerals
- Industrial & Consumer Specialties
- Oil and Mining Services

It reports its continuing operations in the following three business areas: Care Chemicals; Catalysis; and Natural Resources (i.e., Functional Minerals, Oil and Mining Services, and Additives). The Business Unit Pigments was divested on 3 January 2022.*

The Board of Directors provides Clariant's strategic direction. Additionally, it is the supreme management body of the company and, simultaneously, the supreme supervisory body of the Group. The ultimate decision-making authority is the Board of Directors in all matters except those decisions reserved by law or the Articles of Association for the shareholders, while the Executive Steering Committee is responsible for the financial and operational management.

Please consult the → Corporate Governance Report for in-depth information on corporate governance.

* Note: As of 1 January 2023, the Group conducts and reports its business through three newly formed Business Units: The new Business Unit »Care Chemicals« (consisting of the two former Business Units Industrial & Consumer Specialties and Oil and Mining Services), the new Business Unit »Catalysts« (consisting of the former Business Unit Catalysts), and the new Business Unit »Adsorbents & Additives« (consisting of the two former Business Units Additives and Functional Minerals).

RISK AND CRISIS MANAGEMENT

Clariant has developed a systematic approach to analyzing and managing risks and crises. It includes the goal of achieving resiliency as well as measures concerning the business model and the protection of Clariant's production assets against financial and non-financial risks, such as cyber risks or physical, regulatory, or market risks related to climate change. After the pandemic, the world in 2022 continued to be unpredictable, marked by political instabilities resulting from the war on Ukraine. At the same time, global risks, such as climate change and digital disruption, have further accelerated. With its effective and strong enterprise risk management, Clariant ensures quick adaptation to a fast-changing environment, provides for protection, and fosters its ability to meet stakeholders' changing needs.

Management approach

Clariant's regular risk assessments are based on a company-wide approach. They integrate sustainability and consider any threat that might impact the achievement of the company's financial and non-financial strategic objectives. Within the framework of the Enterprise Risk Management Policy, risk assessments are prepared by business units, service units, and corporate functions. Annual summary risk assessments are submitted to the Executive Steering Committee, the Audit Committee, and the Board of Directors for review. In the case of new or changed risks, internal reporting is accelerated. In 2022, the focus was on managing the impacts of the war on Ukraine on personnel, compliance with international standards, and business continuity.

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 its property risk survey program, and Group Procurement, to ensure reliable and compliant supply of raw materials.

At Clariant, the terms »crisis management« and »emergency management« are used synonymously. Concerning emergency management, Clariant Corporate Guidelines 08 (EHS Reporting) and 15 (Emergency Management) set the framework for emergency reporting and the organization of emergency management. Compliance with the emergency guidelines is the responsibility of the head of Emergency Management. Emergency management teams are established at every site and in each country and region. The Group Emergency Management (GEM) team is responsible for crisis/emergency management at the Group level. This team is supplemented by extended functions such as IT, Legal, Procurement, Communications, and Product Safety. Annual scenario trainings are mandatory for all emergency management teams throughout Clariant.

Effective Enterprise Risk Management

Enterprise Risk Management (ERM) comprises the identification, management, mitigation, measuring, monitoring, and prevention of risks. The Executive Steering Committee is responsible for monitoring the risk assessments for relevance and consistency. It 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 related to Ethics and Integrity as well as Antitrust. The assessment and management of climate-related risks and opportunities are monitored by the Board of Directors' Innovation & Sustainability Committee, which was formed in April 2021.

Potential threats are documented in risk registers, quantified, and delegated to qualified individuals and teams with specific skills for the management of the respective risk. Documentation in the risk registers uses financial and reputational impact and probability assessments to score and rank the risks. The assessments also address measures to manage the risks and set dates for completion of the measures.

→ Read more in Enterprise Risk Management.
→ Read more in Board of Directors.
→ Read more in the management of financial risks.
→ Read more in TCFD Disclosures.

Active emergency management

During the pandemic, Clariant´s approach to crisis management with the key priority of protecting the health of all employees has proven to be efficient, including the specific policies such as how to reduce the risk of infection at sites and how to manage visitors or contractors. In 2022, active emergency management focused on preparing for worst-case cyber or ransomware attacks. A new alerting and collaboration tool was purchased. It is located outside the Clariant network and allows communication and collaboration in the event of the standard Clariant communications tools being unavailable. Another significant challenge in 2022 was the management of the impact of the war on Ukraine. Elements included the duty of care to employees both in Ukraine and Russia, compliance with international sanctions, and ensuring business continuity in other countries.

Resiliency and the recognition of opportunities

The overall goal is to continuously integrate ESG risks and opportunities into Clariant´s long-term strategy. A strong risk culture is essential to support and maintain Clariant´s operational resiliency in a fast-changing environment. In particular, Clariant recognizes the need to evaluate climate impact and enhances climate risk assessments. Acknowledging dependencies and interconnections may result in a better alignment and understanding of risks from all parts of the business and eventually help in recognizing the opportunities as well.

Supply chain reliability: The achievement of targets also depends on the reliability of the supply chain. Raw material purchasing may be impaired due to the unavailability of respective products, required energy, or corresponding means of transportation. Similarly, Clariant's customers may be affected by the unavailability of certain input materials outside the range of chemical products, limiting their production and thus Clariant's sales opportunities. Clariant responds to these challenges with market intelligence and monitoring to identify potential constraints at an early stage and in close cooperation with business partners. The Standardized Operating Procedures for Supplier Sustainability, Compliance, and the Risk Assessment Process, updated in July 2022, refer to the details regarding supplier sustainability assessments and audits.

→ Read more in the chapter Supply Chain Resiliency.

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.

Sustainability transformation: Demand for sustainable products is clearly increasing, which opens up business opportunities. Unavailability of sustainable offerings represents a market disadvantage. Clariant is responding with the service unit Group Innovation & Sustainability, which combines Sustainability, Innovation, ESHA, and other competencies coming together in one department to accelerate the sustainability transformation.

→ Read more about TCFD disclosures.
→ Read more about Corporate Governance.

External reporting and transparency

Believing in reporting as a mechanism for more awareness and accountability, Clariant will continue to improve transparency and the disclosures as risk profiles expand. Clariant aims to increase transparency by further quantifying the risks, for example, with respect to climate. Clariant voluntarily uses and references the following standards and frameworks in its holistic approach:

— GRI Standards 2021
— SASB Standards (Chemicals)
— TCFD Disclosures
— International <IR> Framework, Part 2, 4D

005 **NINE-STEP APPROACH**

1 IDENTIFY AND REPORT

Report your concerns or observed misconduct to Management, Legal, HR, Compliance, or anonymously to the Integrity Line (IL). Third parties can use the Clariant Integrity Line as well. Do not start to investigate by yourself.

2 REGISTER AND ASSIGN

All cases are registered by Management or Compliance with the IL. Through the IL, cases are assigned to the case manager (CM) of the respective function.

3 PRE-ASSESS

The CM makes plausibility checks, reviews evidence, requests more information, and evaluates whether an investigation should be started. If so, an investigation will be conducted. If not, the case will be closed.

If reported anonymously, the reporter is requested to safeguard the login details to keep the anonymous communication channel open.

4 DEVELOP INVESTIGATION PLAN / FORM INVESTIGATION TEAM

The CM forms the team and agrees on the scope of the investigation.

5 INVESTIGATION FACTFINDING

The CM leads the execution of the investigation plan – the discovery phase, interviews, documentation, reviews, etc.

6 INVESTIGATION REPORT

The CM reports on the investigation's facts and findings and addresses the recommended actions according to the sanctioning matrix.

7 RESOLUTION OF THE CASE

The regional or global Ethics & Risk Management Committees review the investigation report and decide on corrective and/or disciplinary measures. Decisions are never taken by one person only.

8 SHARING OF LESSONS LEARNED

The CM performs a root cause analysis and shares with key stakeholders the lessons learned.

9 CLOSING THE CASE

After the resolution is implemented, the CM documents relevant facts, findings, root causes, and lessons learned with the IL and closes the case.

The outcome and investigation details are strictly confidential and will not be shared with the reporter. The reporter will be notified that the case has been reviewed and closed.

BUSINESS ETHICS AND COMPLIANCE

»Business ethics and compliance« refers to ethical, responsible, and integrity-based corporate behavior regarding, for example, management, procurement, marketing, and sales. It also involves complying with legal and regulatory frameworks on accounting and taxation, anticompetitive practices, money-laundering, bribery and corruption, lobbying and political involvement, and intellectual property rights.

Clariant is a world-class, high-performance company that acts with the highest standards of ethics and integrity. The company aspires to also be perceived in this way by its stakeholders. Compliance with laws, regulations, ethical values, and integrity standards is necessary to be sustainably successful and win the trust of business partners and customers.

Management approach

Clariant's business units are responsible for managing business ethics and compliance in their daily operations. Group Compliance supports the business units in adhering to Clariant's ethical standards by providing the Ethics and Integrity Framework, communication, tools, trainings, and advice.

Clariant has a full-time Head of Group Compliance, full- or part-time Regional Compliance Officers in each region, Country Compliance Officers, an Ethics and Integrity project manager and compliance specialist, a Group Privacy Head and an Information Security team. The Group Compliance team gets support from Group Legal Services.

Clariant launched the Code of Ethics in 2021, with the close involvement of Management in the rollout. A Code of Ethics Resource Center is available to resolve dilemmas, get input for team meetings, scenarios, videos and other materials. For 2022, the focus is on the company's new purpose and values, and it has also anchored business ethics in the value »act with integrity.«

Environmental Safety and Health Affairs (ESHA), Sustainability, Information Security, Data Privacy, Enterprise Risk Management (ERM), and Internal Control over Financial Reporting provide annual program overviews. These insights help to ingrain a culture of ethics and integrity throughout the organization and provide assurance on the overall program.

Evaluation of management approach

Until the new operating model was put in place in July 2022, the former Executive Subcommittee Ethics & Risk reviewed and assessed compliance on a global and regional level in all four regions to foster a culture of ethics and integrity across the organization. The whole Executive Committee participated in the subcommittee with the CEO as its chair. The subcommittee received regular reports and updates on individual measures, case reports, and remediation taken. It also approved the annual Group Compliance roadmaps and reviewed the quarterly progress report. With the new operating model since July 2022, Clariant has a different composition of the subcommittee. Following the new bylaws, the subcommittee Charter will be reworked and submitted to the Audit Committee for approval. In Q3 and Q4 2022, the

subcommittee has had as attendance the CEO, the CFO, the General Counsel, the CHRO, the Head of Group Compliance, and, as a standing guest, Internal Audit.

Due diligence

Compliance and the highest ethical values apply not only to Clariant's own operations, but also to third parties acting for or on behalf of Clariant, like distributors, agents, and other service providers. They must undergo a detailed due diligence process to ensure that they are not involved in any form of bribery or compliance violation, that they are reputable and in good standing, and that they do not appear on any sanctions list.

The due diligence process applies to all new and existing sales agents and distributors and all regions. The relationship owner at Clariant describes the business relationship and business activity, explains the distributor's background, and declares the purpose of applying the due diligence process. Participants submit a self-assessment questionnaire afterwards.

Clariant assesses third parties against a predefined risk model: Enhanced due diligence is required for medium- and high-risk business partners. All business partners must confirm, however, that they have an appropriate compliance framework in place. They are also required to complete a relevant training program provided by Clariant. This process is currently under review to accommodate the new Swiss regulatory requirements for more transparency and social responsibility in reporting, which came into force on 1 January 2022 and is applicable from 1 January 2023.

Stakeholder-led regulatory proposals, such as the Responsible Business Initiative in Switzerland and the EU CSRD, increasingly demand greater transparency, particularly with respect to the protection of human rights. Clariant commits to enhancing its existing activities, proving its commitment, and focusing on → human rights in its own operations and the supply chain.

Clariant has introduced a clear statement related to human rights in its revised Code of Ethics, which was launched in 2021. Building on this commitment, the current Human Rights Framework as well as due diligence for suppliers is being reviewed for completeness and compliance with the upcoming regulations.

Information security and data privacy

Clariant has established an Information Security Program to create awareness and train employees on the appropriate use of data. The Information Security Program includes information classification, measures to avoid the loss of data, and measures according to the confidentiality, integrity, and availability (CIA) of information. To ensure a coordinated approach, Information Security Champions in each business and service unit support the implementation of the program in close collaboration with the IT Security team.

In 2018, Clariant implemented a Data Privacy Program in line with the General Data Protection Regulation (GDPR) of the European Union. The Data Privacy Program is still operational in 2022. An internally certified Data Privacy Organization is responsible for providing guidance and regular information, creating awareness, conducting trainings, and implementing the program throughout the company, with Data Privacy Champions in each business unit and region. Clariant's internal information channels (intranet, Yammer, etc.) make important information directly available to end users.

The Data Privacy Program consists of the Data Privacy Policy, a general directive on how to process personal data, standardized operating procedures (SOPs) on selected aspects of the Data Privacy Policy, and basic Data Privacy e-learning courses. The aim of the courses is to familiarize all employees with the principles of the Data Privacy Policy, to provide deep dives for more exposed functions like Human Resources, Marketing, IT, and Sales, and to introduce new employees to aspects of Data Privacy. All trainings include the main topics of the → International Association of Privacy Professionals. Following a »train the trainer« approach, the certified employees are responsible for creating awareness and building up the relevant knowledge throughout the company.

Against the backdrop of increasing global requirements concerning Data Privacy, Clariant adapts and develops its Data Privacy strategy as »Think Privacy 2.0.« In 2021, the company advanced the six strategic pillars, which were further enhanced in 2022: ensure compliance with regulations, document systems where personal data is processed, foster a risk-based approach, create awareness, train relevant employees, and monitor program execution. To fulfill GDPR requirements for the management of personal data, Clariant has integrated the information life cycle management (ILM) concept into its SAP system.

Many countries now have strict legal frameworks in place to protect the Data Privacy rights of individuals and legal entities. Clariant rigorously monitors regulatory changes and takes necessary measures. For example, in 2020, when the Schrems II court decision invalidated the EU-US Privacy Shield and subsequently the Swiss-US Privacy Shield, Clariant immediately set up a project to address the required changes. The company has completed the implementation of the new standard contractual clauses (SCCs) adapted by the EU and, in the reporting year, has been implementing the upgrade of the revised Intragroup Data Processing and Transfer Agreement (IGDTA) in this respect.

Strategic Integrity Roadmap

Clariant's Strategic Integrity Roadmap lays the foundation for the company's ethics and integrity strategy, the purpose of which is to foster an ethical mindset and responsible behavior in the workforce. The Strategic Integrity Roadmap is the overarching document to implement the highest standards for responsible business conduct around five pillars: leadership engagement; communication and training; legal and compliance risk assessment; standards and controls; and monitoring, auditing, and reporting.

The roadmap is a detailed plan, including 22 key performance indicators from these categories, which the Executive Committee and the Audit Committee set in 2018, and has continued to be in effect throughout the reporting year. Updates on progress and measures are provided quarterly to the ECS E&R and biannually to the Audit Committee. Clariant continuously evaluates the indicators to improve the effectiveness of its approach. The Audit Committee, on behalf of the Board of Directors, approves the Strategic Integrity Roadmap annually.

Code of Ethics

A central instrument to ensure ethical behavior under the roof of the roadmap is Clariant's Code of Ethics, »We Reflect Ourselves,« which guides employees in their decisions and actions. Following the release of the Strategic Integrity Roadmap, Clariant revised its former Code of Conduct into the Code of Ethics in 2019 and 2020. It was launched in February 2021. Since 2022, the Code of Ethics has been available in Korean and Japanese, among other languages.

The new Code of Ethics outlines the company's ethical commitments and supports employees in reflecting on responsible actions and decisions. In addition, Clariant launched a tool called »Integrity Yes Check.« It helps employees to ask questions related to their daily work to find out whether they are on the right track or should seek support. The Code of Ethics is value-based and designed around Clariant's eight guiding principles:

- We treat each other with respect.
- We comply with highest ethical standards and the law.
- We put safety first and are committed to protecting the environment.
- We are committed to fighting corruption.
- We care about our community and behave as a good corporate citizen.
- We handle information with care.
- We communicate responsibly.
- We take care of our resources.

Until October 2021, Clariant rolled out the Code of Ethics with monthly campaigns and interactive virtual events to reach all employees, despite pandemic circumstances. The company presented the eight principles in webinars, articles, interviews, and videos. In addition, for every principle, it described three dilemmas relevant to all employees, particularly to its site personnel. Supervisors, managers, and global leaders used them to engage in dilemma-based discussions to make the principles more tangible. In the rollout campaign, the Executive and Senior Management committed to living up to the Code of Ethics and gave an integrity pledge. In October 2021, Ethics & Integrity asked all employees (including management) to provide their personal Integrity Pledge in the form of a short text/sentence. 1 637 employees made a pledge.

In September 2022, Ethics & Integrity initiated the rollout of a new Code of Ethics e-learning to promote greater understanding and to explore Clariant's principles and values in a journey through the new Clariant Code of Ethics e-learning. It will be rolled out in 9 modules through 2022 and 2023.

Anti-bribery, anti-corruption, antitrust

In addition to its global anti-bribery and anti-corruption policy (Anti-Bribery, Anti-Corruption, and Anti-Money Laundering Policy) and gifts and entertainment policy, Clariant has developed local policies regarding gifts, entertainment, and community engagement work. The company also has a comprehensive antitrust compliance program and guidelines, which it updates regularly. It particularly investigates corruption risks during reviews of high-risk businesses in high-risk environments with high-risk customers.

In 2020, Clariant drafted a holistic fraud program, implemented a third-party risk management system, and mandated job rotation for employees in exposed functions whenever possible. It developed the fraud program further in 2021 and has reimplemented it in 2022 with key performance indicators set and monitored.

Investigation process

With the new Code of Ethics, Clariant has updated its investigation process. The nine-step-approach applies to all reported concerns and breaches of the Code of Ethics. Corporate Functions (Group Compliance, Group Human Resources, Corporate Audit, ESHA, and other functions where appropriate) are responsible for the investigation and have received appropriate training. Remediation lies with the global ECS E&R and the regional Ethics and Risk Management Committees. The company tracks the number and type of process changes made in response to allegations. → Read more in Figure 005.

Clariant Integrity Line

In addition, employees and business partners can confidentially report malpractices, violations of the Code of Ethics, and workplace-related compliance issues through the »Clariant Integrity Line«. Reports can be anonymously made if preferred by a reporter. Integrity Line is an independent third-party operated platform, and available in multiple languages 24/7 via an easy-to-use online portal. The Integrity Line will be adapted to the legal requirements of the EU whistleblower directive. Local legal requirements of EU member states affected will be implemented.

INTEGRITY LINE

	Total 2022	2021	2020	2019	2018
Cases submitted via the anonymous Integrity Line	**120**	**82**	**64**	**99**	**95**
thereof fully or partially substantiated	22	31	17	8	29
thereof closed during the year	69	56	38	31	72
Questions submitted via the anonymous Integrity Line	**20**	**13**	**9**	**17**	**9**
Total submissions	**140**	**95**	**73**	**116**	**104**

In 2022, Clariant received 20 questions and 120 reports through its Integrity Line. One case can relate to several issue types. Of the reports, 53 were related to business integrity, 62 to the treatment of employees (of which 17 related to the same concern), 7 to health and safety or environmental violations, and the remaining cases related to quality concerns, and others. 22 cases were substantiated fully or partially. 35 cases were unsubstantiated.

The increase in the reports received is partly connected to the focus on fostering the speak up culture that Clariant has adopted since 2018. The company has worked on the communication, training and also on delivering to what we promise to our colleagues. The launch of the new Code of Ethics, together with its commitment to zero tolerance related to retaliation if the report is provided in good faith, gave an additional boost.

COMMUNICATION AND TRAINING ON ANTI-CORRUPTION POLICIES AND PROCEDURES

	Total 2022	2021	2020	2019	2018
Percentage of members of the Board informed about anti-corruption policies (%)	100	100	50	100	50
Percentage of employees informed about anti-corruption policies (%)	99	3	14	90	40
Percentage of business partners informed about anti-corruption policies (%)	80 [4]	70	60	60	40
Percentage of members of the Board who received anti-corruption training (%)	36	100	50	100	50
Percentage of employees who received anti-corruption training (%)	99	3	14	86	30
Percentage of employees who received compliance training (%)	98	81	14	86	45
Number of employees trained on elements of the Group Compliance Programs [1]	28 649 [3]	11 751	n.a.	n.a.	n.a.
Number of participants in »Ethics Dialogs« [2]	641	1 500	1 000		

[1] Headcounts
[2] This format was introduced in 2020.
[3] This number represents the number of trainings completed by employees with a Clariant e-mail. In this number there are double counts, as one employee has been invited several times for the Code of Ethics e-learning and other e-learnings in 2022.
[4] 80% is an estimation based analysis run on our business partners

Training and communication

Clariant has set a target of mandatory compliance trainings as part of employee performance management. The company offers regular e-learning courses on anti-bribery and anti-corruption as well as micro learnings on speaking up, nonretaliation, the Integrity Line, trade compliance, third-party risks, bribery and corruption, conflict of interest, and theft and misuse of sensitive information. In 2022, a total of 28 649 trainings were completed on elements of the Group Compliance programs. Special target groups, like employees with higher exposure, receive further face-to-face trainings. The company also familiarizes new employees with the Code of Ethics as well as anti-bribery and anti-corruption policies in introductory trainings. Classroom trainings and e-learnings on antitrust matters are mandatory for employees working in procurement, marketing, sales, and other relevant functions. Clariant developed a training curriculum in 2021, which defines the frequency, target groups, and further details. It was put into practice in 2022.

In addition, Clariant started a new »Ethics Dialogues« format in Latin America in 2021. It was planned in 2022, to hold a Global Ethics Dialogue and regional Ethics Dialogues in all regions. Due to the implementation of the new organizational structure and operational principles in the new Management Bylaws, the initiative was postponed to 2023.

Since 2020, Clariant has trained more than 5 000 employees in its antitrust training campaign with more than 380 global webinars.

Compliance incidents

During the annual external audit cycle, there is also a review of the Integrity Line, case management handling, reporting, and program oversight.

Noncompliance

In 2022, four allegations regarding bribery, corruption, and kickbacks were brought forward. Three were still pending at the end of 2022. There were no legal proceedings against Clariant or its employees for alleged corruption, and Clariant did not terminate relationships with business partners (agents, distributors, or consultants).

Anti-competitive behavior

In 2022, there were no reported legal actions for anti-competitive behavior or antitrust or monopolistic practices. There remains a pending annulment action from 2020 already addressed by the company.

Compliance with laws and regulations

In 2022, Clariant received five fines (> CHF 10 000) for noncompliance with environmental laws and social regulations.

SUPPLY CHAIN RESILIENCY

Building a resilient supply chain ensuring business continuity and systematically integrating sustainability practices will remain paramount for Clariant. In an increasingly unpredictable environment, Clariant does not stand still and is determined to further strengthen its position by securing customer supply and balancing customer and consumer interests and demands for low-carbon material and products.

Aside from managing persisting turbulences in the supply chain related to the pandemic, additional challenges marked the reporting year 2022, such as the war on Ukraine, resulting in increased complexity, the risk of unpredictable energy costs, and additional logistic delays. In 2022, Clariant again took care to prepare its supply chain for the future by anticipating bottlenecks and choosing its suppliers accordingly. Clariant prefers to cooperate with suppliers that deal with climate change by reducing their emissions and providing emergency schemes for extreme weather events. For regular external evaluations of risk profiles and supplier assessments, Clariant engages in the industry

initiative Together for Sustainability and collaborates with sustainability ratings provider EcoVadis. → Read more about supplier evaluation.

Long-established local and regional supply bases help Clariant to mitigate disruption risks. In 2022, this network has again proven to be valuable in dealing with geopolitical issues, trade disputes, factory shutdowns, or blocked traffic routes. In addition, Clariant's procurement managers continuously review and adapt supply strategies. Further priorities include increasing transparency through digital applications, such as tracking product carbon footprints, and the ability to illustrate how raw material issues affect the production of finished goods in order to see the sales at risk.

Through the Supplier Sustainability & Climate Initiatives team, which comprises five procurement experts with specific expertise and a responsibility for sustainable procurement, Clariant has made it a priority to integrate sustainability actions into procurement processes and its global supply chain. In line with customer and consumer interests, these actions aim to continuously increase the share of suppliers joining Clariant's supplier sustainability program and the share of low-carbon and renewable raw materials sourced.

Clariant incorporates sustainability standards into its procurement practices and demands transparency from its direct and indirect suppliers on various topics such as emissions, labor rights, human rights, and sustainable procurement practices. Considering the impact of changing legislation with respect to due diligence in supply chains regarding human and labor rights has been another focus in 2022 and will require further analysis and actions in the future. → Read more in the chapter Human and Labor Rights.

Management approach

Clariant's backbone for supply chain resiliency and sustainability comprises 70 production sites in 24 countries. Global responsibility lies with Clariant's Supply Risk Management, which reports to the Head of Center of Expertise. It develops and deploys Clariant's strategy for supply risk management and supports Group Procurement Services, Global Business Services, business

PRODUCTION SITES AND FACILITIES

	Continuing operations	Discontinued operations	**Total 2022**	2021	2020	2019	2018
Production sites [4]	70	n.a.	70	79	126	118	125
Countries with production facilities	24	n.a.	24	27 [2]	39	38	39
Production (in m t) [3]	3.80	n.a.	3.80	4.43	4.1	4.25	4.34
Investment in property, plant, and equipment (in CHF m)	n.a.	n.a.	209	357	288 [1]	273	237

[1] Restated
[2] The sum does not add up as in some countries there are productions sites for both continuing and discontinuing operations.
[3] Every three years, Clariant validates environmental data from all production sites. The last full reporting campaign was in 2020, including estimated discontinued data for Business Unit Masterbatches for the first half-year. In interim years, including 2021, the reduced reporting scope comprises the larger sites responsible for at least 95 % of production.
[4] Two sites that are not in the reporting scope are excluded from the count

RAW MATERIAL PROCUREMENT [1]

	Continuing operations	Discontinued operations	**Total 2022**	2021	2020	2019	2018
Raw materials procured (in m t)	**3.50**	**n.a.**	**3.50**	**3.67**	**2.92**	**3.13**	**3.31**
Percentage of the procurement budget that is used for significant locations of operation and spent on suppliers local to that operation (%)	**89.3**	**n.a.**	**89.3**	**87.1**	**87.6 [4]**	**88.0**	**88.3**
Asia-Pacific (in CHF m)	**376**	**n.a.**	**376**	**501**	**426**	**597**	**672**
Of which with local suppliers (in CHF m) [2]	367	n.a.	367	476	405	564	641
Number of local suppliers [3]	679	n.a.	679	1 422	2 296	2 422	2 527
Europe (in CHF m)	**1 164**	**n.a.**	**1 164**	**1 255**	**1 017**	**1 232**	**1 340**
Of which with local suppliers (in CHF m) [2]	1 058	n.a.	1 058	1 088	909	1 117	1 228
Number of local suppliers [3]	751	n.a.	751	840	1 374	1 416	1 514
Latin America (in CHF m)	**272**	**n.a.**	**272**	**234**	**207**	**262**	**320**
Of which with local suppliers (in CHF m) [2]	195	n.a.	195	161	140	176	213
Number of local suppliers [3]	452	n.a.	452	784	1 065	1 088	1 085
Middle East/Africa (in CHF m)	**72**	**n.a.**	**72**	**54**	**67**	**99**	**106**
Of which with local suppliers (in CHF m) [2]	43	n.a.	43	33	37	55	57
Number of local suppliers [3]	78	n.a.	78	124	358	395	378
North America (in CHF m)	**375**	**n.a.**	**375**	**307**	**311**	**453**	**510**
Of which with local suppliers (in CHF m) [2]	353	n.a.	353	288	285	419	464
Number of local suppliers [3]	326	n.a.	326	469	927	979	930
Grand Total (in CHF m)	**2 258**	**n.a.**	**2 258**	**2 352**	**2 027**	**2 642**	**2 948**
Of which with local suppliers (in CHF m) [2]	2 016	n.a.	2 016	2 048	1 777	2 330	2 603
Number of local suppliers [3]	2 286	n.a.	2 286	3 639	6 020	6 300	6 434

[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
[4] Continuing operations only

units, and service units in reducing their risk exposure. Supply strategies are aligned with each business unit.

The Supplier Sustainability & Climate Initiatives team is responsible for setting the sustainable procurement strategy and implementing supplier sustainability projects globally. The team reports to the Head of Procurement and includes regional sustainability specialists for Europe, Asia-Pacific, Middle East and Africa, and the Americas.

Clariant continuously enhances the breadth and depth of its Procurement Sustainability Roadmap. It sets annual targets for supply chain sustainability, as well as Scope 3 GHG reductions, and tracks them monthly in management committee meetings. The company draws from insights and feedback gathered through external evaluations, industry benchmarks within and outside the chemical industry, and conference participation.

Clariant actively measures and manages the performance and behavior of its suppliers. For this purpose, the company has set individual targets that represent all its relevant specifications and needs. It conducts an annual supplier evaluation through a lean questionnaire, while holistic risk management processes allowing for comprehensive insights in Clariant's key supplier base are under construction.

Supply chain policy

The → Supplier Code of Ethics of January 2022 reflects the principles of the UN Global Compact initiative, the global chemical industry's Responsible Care® initiative, the OECD Conflict Minerals Guidance, and Clariant's Policy Statement on Human Rights and is part of the company's general terms and conditions of purchase. It outlines principles for the sustainability performance of suppliers and sets standards related to people (the human scope), planet (the environmental scope), and integrity (the ethical scope).

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 aspects, the company considers environmental, labor and human rights practices, sustainable procurement practices, as well as integrity and ethics. In 2021, Clariant published its → Supplier Sustainability Journey, which outlines the company's sustainability expectations toward suppliers.

Supply risk evaluation is an integral part of Clariant's supply strategy. Therefore, its supply chain setup includes redundant sourcing, a notification system for crucial events, regular tracking of open orders, constant contact with its suppliers, emergency team meetings to define mitigation measures, cross-functional cooperation, and supply contracts to secure favorable prices.

Supply chain targets

Compared to 2021, Clariant was able to reduce → Scope 3 emissions (Category 1) from purchased goods and services around 4 % in 2022. In the years ahead, Clariant will intensify its activities around developing low-carbon solutions to be able to achieve the sustainability target it has set itself in 2021, which is a reduction of Scope 3 emissions of 14 % by 2030. In addition, collaboration with suppliers to set GHG reduction targets and disclose carbon footprints becomes more important. Read more about → Clariants' Sustainability Targets and the activities to change Clariants' impact in the Chapter → Resource Efficiency and Environmental Protection.

PERCENTAGE OF SUPPLIERS ASSESSED VIA ECOVADIS

	Continuing operations	Discontinued operations	**Total 2022**	2021	2020	2019	2018
Percentage of direct spend for raw materials from suppliers covered by shared sustainability ratings (EcoVadis)	89	n.a.	89	87	84	78	74

In its Procurement Sustainability Roadmap, Clariant defined the following indicators with respect to supply chain sustainability due diligence:

- spend covered by sustainability assessments or audits;
- spend with risk suppliers;
- number of new sustainability assessments (EcoVadis) generated;
- number of new sustainability audits generated;
- number of suppliers that have improved from one assessment or audit to the next.

»Over the past two years, we have had a particular emphasis on increasing the quality of the emission factors for our raw materials and to selectively switch supplies to sources with lower emissions.«

Bettina Siggelkow, Head of Sustainability Affairs

Working together for a better footprint

Partnerships and collaborations are increasingly important to leverage potential sustainable synergies. The Procurement team has started to work with Jiangxi Fuerxin Medicine Chemical Co., Ltd., a strategic supplier from China. Through purchases of hydropower and the future installation of solar panels, Jiangxi Fuerxin Medicine Chemical Co., Ltd., will reduce the carbon footprint of its operations and of the products supplied to Clariant. It is expected that this collaboration will lead to a reduction of approximately 870 tons CO_2 per year, thereby contributing to the Clariant Scope 3 target achievement. Clariant is going to continue to explore potential collaborations as a differentiation opportunity.

Internal sustainability trainings

Clariant Group Procurement Services (GPS) organizes annual procurement-specific internal trainings so that employees can adequately evaluate performance in the supply chain and incorporate sustainability aspects into their purchasing decisions. In 2022, GPS organized 20 trainings mainly for procurement managers, the corporate sustainability team, and sustainability experts from business units. New employees in procurement also receive special training and support material. Clariant introduced several remote training formats, mainly on Scope 3 greenhouse gas emissions. 94 % of procurement employees have been trained in sustainability-related topics by the end of the reporting year.

Proportion of spending on local suppliers

Whenever possible, Clariant procures goods and services from local suppliers that fulfill all procurement criteria. Supporting regional economic development in this way is particularly relevant for – and encouraged in – key emerging markets such as Brazil, China, and India. Clariant defines local suppliers as suppliers based in the same country or region where it uses the materials and services.

Supplier evaluation

To evaluate the ESG risk profile and increase the sustainability performance of its supply chain, Clariant relies on the external assessments and audits of the »Together for Sustainability« (TfS) initiative. TfS is a non-profit organization with a joint approach by the procurement leadership of large chemical companies, that uses the internationally recognized EcoVadis evaluation platform to measure the sustainability performance of its chemical suppliers. Clariant also considers Responsible Care® audits, the Sedex Members Ethical Trade Audit (SMETA), and the Cefic Safety and Quality Assessment for Sustainability (SQAS).

Suppliers are selected for participation in an assessment or an audit based on country and business risks, global category priorities, and purchase volumes. Outsourcing these assessments and audits to external providers guarantees process robustness, independence, confidentiality, and conformity with antitrust and competition laws. Clariant supports strategic suppliers that outperform their peers in assessments and audits and continuously improve their performance.

Through the TfS initiative, Clariant has online access to a large number of assessment scorecards and audit reports generated on behalf of other TfS members. In addition to an overall score, they contain individual scores for environmental topics, labor and human rights, ethics, and sustainable procurement. Furthermore, they provide detailed feedback on specific improvement areas and guidance on where and how to address the identified gaps.

In 2022, TfS members initiated 1 545 new supplier assessments and 5 477 reassessments, of which 64 % resulted in improved scores. At the end of the year, the TfS pool included 13 472 actively managed assessments. The number of new audits among TfS members amounted to 378. Clariant correlates these assessments and audits against its own supplier base to determine the share of total spend covered by TfS assessments, which in 2022 amounted to 89 %.

New suppliers, undergoing the Integrity Next self-assessment

In 2022, Clariant started business with more than 4 000 new suppliers. Small indirect spend vendors represented 70 % of them. These suppliers are invited to fill in the Integrity Next Self Assessment form, which covers other topics besides sustainability, such as cyber security or sanction list.

Negative environmental and social impacts in the supply chain and actions taken

Following a comprehensive approach for supplier assessments and audits, Clariant monitors, measures, and improves supplier performance, identifies improvement opportunities, and embeds sustainability as an integral part of supplier selection and management. These actions decrease supply chain risks.

NEGATIVE ENVIRONMENTAL AND SOCIAL IMPACTS IN THE SUPPLY CHAIN

	Total 2022	2021	2020	2019	2018
Number of suppliers assessed for environmental impacts	4 242	4 876	4 205	9 434	10 566
Number of suppliers identified as having actual or potential significant negative environmental impacts	400	524	472	784	955
Percentage of suppliers identified as having actual or potential significant negative environmental impacts and with whom improvements were agreed upon as a result of assessment	44	13	14	18	20
Number of suppliers assessed for social impacts	4 242	4 876	4 205	9 434	10 566
Number of suppliers identified as having actual or potential significant negative social impacts	242	357	342	1 060	1 205
Percentage of suppliers identified as having actual or potential significant negative social impacts and with whom improvements were agreed upon as a result of assessment	47	9	14	16	26

Clariant clearly and consistently outlines its expectations of suppliers, as well as indicates to suppliers how they can improve their performance. If a TfS assessment yields an unsatisfactory result, Clariant develops Corrective Action Plans (CAPs). Depending on the TfS scores, CAPs can be recommended or mandatory. They can also be limited to particularly critical topics, for example, environmental policy, diversity and anti-discrimination measures, or labor and human rights. In 2022, 44 % of the 400 suppliers identified with significant negative environmental impact followed a CAP. The identified negative environmental and social impacts were mostly related to weaknesses in suppliers' sustainability management systems, such as a lack of measures in employee health and safety, limited reporting with respect to environment or labor and human rights, as well as missing sustainable procurement policies. The suppliers were mainly located in Asia, North America, and Latin America.

CAPs are determined in accordance with the Supplier Sustainability Journey and Consequence Management Framework. These have turned out to be helpful tools to improve performance in the company's supply chain and to mitigate sustainability risks. However, if suppliers do not improve over time, Clariant reduces purchase volumes and sometimes, although rarely, terminates the business relationship. In 2022, no business relationship with suppliers was terminated as a result of the environmental and social assessment, as Clariant focused on collaborating with its suppliers to close the gaps.

Clariant evaluation as supplier

In 2022, Clariant received a score of 75 for its own EcoVadis assessment. The company scored particularly high in sustainable procurement (90 points), which acknowledges its advanced sustainability system of supply chain management.

Supplier trainings

Clariant procurement provides key suppliers with free annual trainings, webinars, and materials. They cover a variety of topics, including the TfS assessment and reassessment process, improving sustainability performance, and working on Corrective Action Plans (CAPs).

In 2022, Clariant invited suppliers in Europe, the Middle East, Africa, and India, as well as the Asia-Pacific region, North America, and Latin America, to participate in multiple trainings and webinars facilitated by TfS. They emphasized the importance of sustainable procurement and helped suppliers to understand the TfS requirements and opportunities, as well as the EcoVadis methodology, so that they can further improve their assessment scores. Additionally, TfS launched the TfS Academy in 2022, a complementary e-learning platform for buyers and suppliers. It provides support in multiple languages on various sustainability topics. → Read more on TfS.

INNOVATION AND TECHNOLOGICAL ADVANCES

A strong focus on innovation and Research & Development is one of the four dimensions of Clariant's purpose, with the innovative chemistry expanding what is possible to the benefit of all. Clariant responds to emerging macrotrends to stay ahead in dynamic markets and create high-performing solutions for rapidly changing customer needs.

Innovation drives profitable growth in all businesses and provides the capabilities to position Clariant and its customers at the forefront of a sustainable world. The company's cutting-edge innovations meet the increasing demand for sustainability performance and create long-term value for Clariant's stakeholders.

Innovation activities at Clariant focus on products, processes, and services along the company's entire value chain, from suppliers to internal operations, customers, and end users. A culture of innovation is also an important factor in creating a compelling work environment, boosting employee motivation, and helping Clariant to attract and retain talents.

Management approach

Clariant's Global Innovation & Sustainability Council (GISC) oversees all innovation activities across the Group. It shapes the sustainability and innovation agenda of the company, focusing on a sustainability-driven portfolio transformation. Under the lead of the CTSO, the GISC comprises the business units' innovation heads, the head of sustainability transformation, the technology and innovation office, as well as the CEO and the board delegate of the Innovation and Sustainability Committee as permanent guests. Other key functions join upon invitation.

The charter of the GISC outlines its focus: reviewing Clariant's sustainability, innovation, and technology strategy; ensuring that value creation is sustainability-focused and market- and customer-driven; challenging the effectiveness and efficiency of strategy execution; deciding on global or regional cross-BU programs, projects, and initiatives; and acting as an advisory platform to the Executive Committee.

In 2022, Clariant's Service Unit Group Innovation & Sustainability (GIS) applied structural changes to further support the necessary link between innovation and sustainability. The GIS now consists of the following units: Environment Safety Health Affairs (ESHA), Integrated Group System Management (IGSM), and Global Product Stewardship and Sustainability Transformation. A lean Program Management Office & Innovation Center Management Function manages Clariant's Innovation Centers and ensures standardized processes, tools, and reporting. Group Biotechnology combined with the Business Line Biofuels & Derivatives, while Global IP Management was merged into Group Legal. Emerging Technologies was subdivided into the Analytical Sciences unit, which joined the new GIS organization. High-Throughput Experimentation and Digital Formulation Factory were integrated as new units into BU ICS to have a closer alignment on this technology platform with the business. Clariant regularly reviews its innovation approach as part of the Strategic Management Process.

Clariant actively contributes to the update of the World Business Council for Sustainable Development (WBCSD) framework for portfolio sustainability assessments (PSAs). It contributes as a member of the working group developing the methodological update according to the requirements of the EU Green Deal and other initiatives. Clariant is using its Portfolio Value Program (PVP) as central steering element of the portfolio towards more sustainability. The PVP was introduced in 2012. It was developed in cooperation with the internationally renowned Collaborating Center on Sustainable Consumption and Production (CSCP), a nonprofit organization and »think and do tank« founded by the United Nations Environmental Program (UNEP) and the Wuppertal Institute.

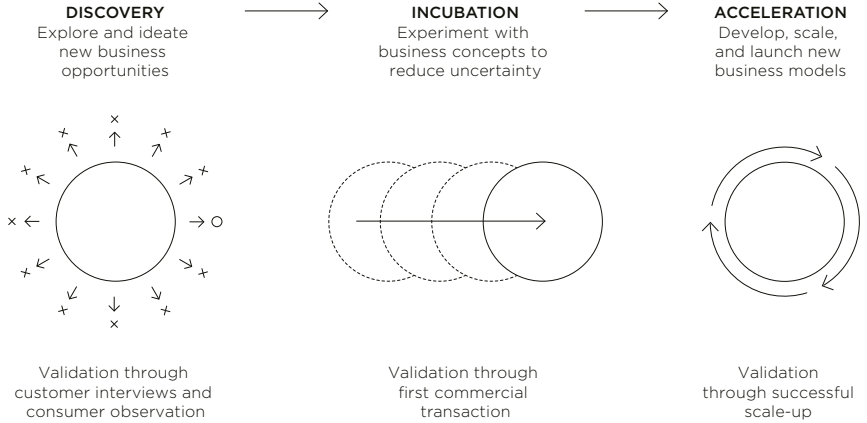
In 2022, the Portfolio Value Program (PVP) methodology was updated in anticipation of customer requests, upcoming legislation, and trends. Based on 39 sustainability criteria covering all life cycle phases, the assessment allows Clariant to design and promote new solutions with less footprint and a higher handprint. The updated PVP, also called PVP 2.0, enables Clariant to provide more accurate and credible information on the performance of the portfolio across all life cycle phases. This helps Clariant's customers to have a deeper understanding of the effects, releases, and emissions of Clariant's products and services. → Read more on the Portfolio Value Program.

Strategic innovation process

Clariant's innovation pipeline is built along the Idea to Market process, one of the three value-creation processes at the core of Clariant's business model. This process involves scouting global trends, identifying business opportunities, exploring unmet customer needs, developing products, and commercializing and monitoring business performance. It is essential for developing a well-filled product and service pipeline that delivers marketable innovations.

STRATEGIC INNOVATION PROCESS: DISCOVERY, INCUBATION, ACCELERATION (DIA)

To accelerate the innovation process and establish new business in uncertain environments, Clariant implemented a strategic innovation process, which consists of three phases: discovery, incubation, and acceleration. Specialized teams with diverse mindsets, agile project management, and lean start-up methodologies allow fast learning to quickly confirm or reject given assumptions at the basis of a 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. This innovation process concentrates on strategic opportunities or threats beyond the current market and/or technology focus that have a significant financial or sustainability impact. The process follows a lean, customer-centric, and evidence-based approach.



According to the Idea to Market process, Clariant groups all innovation projects into three categories. Class 1 projects have a sales potential in the double-digit million CHF range and have strong strategic relevance for Clariant. These projects are managed by Innovation Black Belts. Innovation Black Belts typically dedicate their full working time to managing Class 1 projects. Class 2 and Class 3 projects are usually led by Innovation Green Belts, who dedicate part of their work time to these projects parallel to other R&D tasks. Innovation Black and Green Belts are trained and coached on tools and process know-how by Innovation Master Black Belts.

Development of key performance indicators

After achieving its growth target for innovation sales in 2021, Clariant met expectations again in 2022 despite supply chain shortages and the challenging economic environment linked to the COVID-19 pandemic.

Clariant endeavors to realize a local currency growth rate of 2–3% through innovation. The target is to achieve 1–2% sales growth from top-line innovations alone. This means innovations that create new sales in new markets, by which they actively contribute to Clariant's net growth. In 2022, innovation sales of the continuing businesses strongly contributed to the company's overall recovery, growing by more than 5.5%. This was a result of Clariant's continuous commitment and efforts to understand its customers' needs and to deliver better and more sustainable solutions.

Research & Development spend in 2022 was CHF 160 million for the continuing businesses, with a slight increase compared to CHF 155 million in 2021 continuing business only. As a share of sales, R&D spending was 3.1%, a decrease compared to 2021, reflecting the efficiency gain in the streamlined R&D organization after the divestment of Business Unit Pigments and sales growth in 2022. R&D employees (in full-time equivalents) decreased from >860 to >785 for continuing operations.

Clariant's state-of-the-art equipment and infrastructure in three Clariant Innovation Centers, ten contract R&D Centers and dedicated Technology Centers, and >45 regional Technical Centers form the basis for successful innovation while ensuring proximity to the customer. In 2022, the overall number of active projects in the innovation pipeline slightly increased to >330 projects in the continuing businesses. With still more than 65 active scientific collaborations, the number decreased compared to 2021, as several projects were completed during last year.

In 2022, Clariant slightly increased the number of employees trained as Innovation Belts to >375. These employees are a key factor in ensuring a well-filled project pipeline and efficient project management. The number of Class 1 projects decreased from >65 to >60 in comparison to the previous year.

At the end of 2022, Clariant's continuing operations' patent portfolio counted >4 300 patents, and the continuing operations' trademark portfolio included >5 900 trademarks. The number of patents and trademarks decreased in comparison to 2021 due to the divestment of Business Unit Pigments, as well as due to stringent portfolio optimization measures.

INNOVATION AND TECHNOLOGICAL ADVANCES

	Continuing operations	Discontinued operations	**Total 2022**	2021	2020	2019	2018
Growth through innovation (%) [2]	>5.5	n.a.	>5.5	>3.5	>1.5 [3]	<3.0	>3.0
Research & Development expenditures (CHF m)	160	2	162	167	195 [1,3]	207	209
Research & Development expenditures as share of sales (%)	3.1	n.a.	3.1	3.2	3.8 [1,3]	3.2	3.2
Clariant Innovation Centers [4]	3	n.a.	3	3	n.a.	n.a.	n.a.
Research & Development Centers and dedicated Technology Centers	10	n.a.	10	10	8 [3]	8	8
Technical Centers	>45	n.a.	>45	>45	>50 [3]	>50	>50
Patents (year-end)	>4 300	n.a.	>4 300	>5 100	>5 400 [3]	>6 500	6 700
Trademarks (year-end)	>5 900	n.a.	>5 900	>7 400	>7 400 [3]	>9 000	8 900
Active innovation projects	>330	n.a.	>330	>325	>350 [3]	>375	>375
Of which Class 1 projects with double-digit million sales potential or of strategic relevance	>60	n.a.	>60	>65	>55 [2]	>65	>70
Scientific collaborations	>65	n.a.	>65	>80	>100 [3]	>125	>125

[1] Restated
[2] 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.
[3] Excluding Business Unit Masterbatches
[4] The categories of contract R&D sites were reorganized in 2021 due to changes in Clariant's R&D landscape after, e.g., divestments.

Technology platforms

Clariant has structured its Research & Development activities along five technology platforms: Chemistry & Materials, Biotechnology, Catalysis, Process Technology, and Emerging Technologies. All technology platforms collaborate closely with the business units to ensure that technology push and market pull go hand in hand.

The Emerging Technologies Unit

The Emerging Technologies Unit is a central platform for technologies on the rise. The goal is to deliver major innovative solutions for the business units by detecting upcoming megatrends with cross-BU relevance that are key to Clariant's competitiveness. The unit acts as an entry point for external technology leads and ensures their initial validation and stringent follow-up until successful integration into the business units.

One current focus area of the Emerging Technologies platform is high-throughput experimentation (HTE). This approach combines research practices designed to deliver more information with less effort. It relies on automation and robotics, miniaturization, and parallelization to plan and execute experiments with significantly increased speed and optimized resource consumption. Combined with computational tools, intelligent experimental design, and cutting-edge data analytics, HTE enables Clariant to explore the full solution space and find correlations that are undetectable using traditional methods.

Transformational platform technologies such as HTE enable the digital transformation of R&D and innovation processes, accelerating the development of new products and the optimization of existing products, and reducing time-to-market. By generating very large sets of product performance data and efficiently exploring new research areas, HTE makes it possible to acquire in-depth knowledge and quickly identify new leads. Research topics include microbiological efficacy testing via high-throughput biological assays for personal care and crop applications, as well as fast-response-unit-approaches for the discovery and development of optimized chemistries and formulations for hydrate inhibitors, pour point depressants, and asphaltene inhibitors for the oil business.

Through the development and integration of HTE techniques such as miniaturization, parallelization, and automation, Clariant R&D can evolve from labor-intensive, batch-based, semi-automated operations to fully automated experimental approaches with lower amounts of consumables and reduced energy costs, making existing processes more sustainable and economically viable, boosting safe and sustainable design of new chemicals, and ultimately reducing time-to-market of new offerings.

Besides high-throughput capabilities dedicated to catalyst R&D in Palo Alto (USA) and to biotechnology in Planegg (Germany), Clariant can rely today on two multipurpose HTE labs in Frankfurt (Germany) and Houston (USA), which are able to support formulation and synthesis processes for various segments and applications and quickly transition from one project to another. The value

of HTE as a technology platform promises to fundamentally transform the way Clariant tackles some of the most pressing sustainability challenges the company faces today in R&D and product innovation.

The Process Technology Unit

The Process Technology platform is a key enabler for Clariant's Sustainability Transformation and continuous improvement tool for process safety and reliability. Navigated by the global program »Process Innovation and Sustainability,« it supports the business units in continuously shaping their production processes, not only for state of the art, but also for upcoming new technologies. This facet assures Clariant's technological competitiveness in its manufacturing processes as well as its leading role in achieving its net zero emission target in operations by 2050.

With a regular systematic analysis of major technological risks and opportunities related to Clariant's production process landscape, the Global Process Technology platform identifies the most relevant focus areas for medium- to long-term process innovation. This assessment is conducted jointly with all business units as well as experts from the Group Innovation & Sustainability and the Group Operational Excellence organization, including regional hubs. A key element in this context is to increase the readiness level of the sites and plants for the successful execution of Clariant's sustainability roadmap. Most process innovation projects that were launched in 2022 are focused on reduction of CO_2 emissions, reduction of environmental pollutants in products, optimization of wastewater treatment, and reduction of energy consumption through electrification of processes and heat integration. In addition, the process innovation program and the process technology experts are being successfully involved in early phases of capacity expansion projects to ensure that strategic investments are based on state-of-the-art technologies versus multiplying current processes. Considering in particular the increasing environmental challenges regarding energy supplies, emission reduction, and water scarcity, it is crucial to find sustainable approaches to established ways of working for a green planet in near future.

To address these challenges, the program Process Innovation and Sustainability is built on a cross-functional collaboration between R&D, engineering, process technology, as well as energy experts. Furthermore, digital approaches and computational methods are involved as one of the key success factors for finding optimum process designs. Developing process technology hubs in the regions ensures that project execution takes place in close alignment with the local manufacturing sites and business unit partners and strengthens capability built in regions as driven by local market needs.

In a nutshell, the Process Innovation and Sustainability Program is the main foreseeable driver to ensure the viability of Clariant's manufacturing processes through »cradle-to-grave« technology and life cycle management.

Biotechnology

»Innovate for sustainability« is one of Clariant's values. Sustainability is becoming the focus of virtually all aspects of daily life. Replacing fossil-based raw materials with bio-based ones has been on the front burner of applied research activities at Clariant for several years. At Clariant, the Business Segment Biofuels & Derivatives focuses on turning »biomass residue streams« into valuable products through biological processes. The input »residue« streams can be as diverse as cereal straw, corn fiber, bagasse, or biomass-containing municipal waste, if they contain significant amounts of cellulose. Cellulose is a nonedible sugar-polymer and an important structural component of the cell wall of green plants. Cellulose is the most abundant organic polymer on earth and convertible into valuable raw materials.

The prime example of such an innovative application is the sunliquid® process. Clariant's Business Segment Biofuels & Derivatives developed a fundamental platform to access and release the polymer-bound sugars of cellulosic material. The released sugars can then be used as an energy source for microorganisms engineered to produce a broad range of fuels and/or biochemicals. In the sunliquid® process, a second biological step transforms the sugars to ethanol, allowing the production of non-food-competing bioethanol for more sustainable transportation. While the transition to a sustainable bioeconomy is gaining momentum, Biotechnology is a key enabler for Clariant's Sustainability Transformation to leverage the full potential of renewable resources.

Key areas of innovation

The technology platforms fuel Clariant's innovation pipeline and drive progress in four key areas: bio-economy, hydrogen economy, circular solutions, and digital innovation. While Clariant already generates sales in these fields, the company aims to play an even stronger role in the future – by creating safer products and contributing to a more sustainable industry with a reduced CO_2 footprint and handprint.

Bio-economy

Clariant contributes to the → bio-economy with its sunliquid® technology – a sophisticated technology to convert lignocellulosic agricultural residues into second-generation bio-ethanol or cellulosic sugars forming a renewable basis for a broad range of chemicals. In 2022, Clariant officially inaugurated its sunliquid® plant in Podari, near Craiova, Romania, for the production of 2G bio-ethanol. Cellulosic ethanol is expected to play a crucial role in decreasing greenhouse gas emissions from the transport sector, as intended by the EU Commission in the Renewable Energy Directive (RED II). By sourcing feedstock locally, greenhouse gas emissions can be minimized, leading to more economic opportunities along the regional value chain. Besides being a drop-in solution for fuel blending application, the sunliquid® technology provides additional uses in downstream applications for sustainable aviation fuel and bio-based chemicals.

It is quite challenging to reduce the carbon footprint of the aviation sector due to the high aircraft operational energy. Sustainable aviation fuels (SAFs) are a key component of Clariant's technology pillar and an enabler to mitigate the environmental impact of aviation. Clariant has several touchpoints with sustainable aviation fuels across three businesses, both in the existing portfolio and with future opportunities. There are: advanced biofuels, purification aids and catalytic solutions. From the increased adoption of sustainable aviation fuels, a strong demand surge is expected for the mineral adsorbents and the sunliquid® business.

Clariant is committed to combating the threats of climate change. A major challenge is the high proportion of fossil carbon in many consumer products. By substituting fossil carbon with bio-based carbon, the earth's natural carbon cycle can be restored. In 2022, Clariant launched the new VITA range of bio-based nonionic surfactants that are 100 % made from plants through bio-ethanol. The surfactants are fully segregated, meaning that the plant-based origin of their raw materials is fully traceable and measurable, with a 100 % Renewable Carbon Index (RCI). Due to the biogenic carbon uptake of their raw materials, the VITA surfactants are natural CO_2 savers. Additionally, they have a chemical and performance equivalence in comparison with the fossil-based variety. Other bio-based products of Clariant include the biodegradable, low-carbon-footprint automatic dishwashing surfactant Genapol® Complete and the award-winning, multifunctional preservation booster Velsan® Flex, which is highly water-soluble, allowing formulation flexibility. Velsan® Flex has an RCI of 93 %. The products have an outstanding compatibility with environmental labels.

Hydrogen economy

Clariant and Technip Energies reached another milestone by installing EARTH® technology at a large-scale hydrogen plant in one of Europe's biggest refineries. The revamp is expected to significantly increase the plant's production capacity. EARTH® is a pioneering drop-in solution that enables a capacity increase in the production of hydrogen by up to 20 % while decreasing CO_2 emissions by up to 10 % and reducing makeup fuel consumption by up to 50 % per unit of hydrogen produced. The technology is carbon-capture-ready and can play a key role in global efforts to reduce emissions with low-carbon hydrogen.

Circular solutions

Circular Economy is one of Clariant's focus areas. Clariant's EcoCircle initiative focuses on circularity in the plastics industry.

Driven by its vision to enable a circular economy, Clariant launched an innovative portfolio of flexible custom solutions for the emerging market of chemical plastics recycling in 2022. The new HDMax® catalysts and Clarit™ adsorbents are designed for the purification of pyrolysis oil made from hard-to-recycle mixed plastic waste to achieve a cracker-compatible feedstock. The portfolio speaks to the need for flexible and economical solutions that enable producers to remove a wide range of contaminants that are continuously changing in the feed. The contaminant removal is possible regardless of process configuration and plastic waste feedstock. When HDMax® catalyst and Clarit™ adsorbents are combined, the adsorbents extend the lifetime of the catalyst by reducing impurities. The pyrolysis oils are made from a chemical recycling process that reduces the environmental burden created by plastic waste that would have been incinerated or landfilled. It then enables a circular value chain for the production of base chemicals.

Clariant not only provides circular solutions for the deicing industry but also fosters cooperation to enable sustainable mining. In 2022, Clariant introduced the Tailings Management Program and the global Competence Center for Tailings Treatment (CCTT) dedicated to developing chemical solutions. With the chemical solutions, Clariant aims for a more efficient waste treatment with less tailings dams. This will transform the way the industry handles mining waste. The CCTT comprises four complementary technology platforms: Flotation, Magnetic Separation, Dewatering and Rheology Modification. Flotation chemicals for slimes could help mines recover valuable minerals that are deteriorating, while flotation chemicals for secondary mining enable operators to reprocess old tailings. In addition, filter aids lead to a better dewatering of tailings, resulting in drier stacks and faster throughput. The Competence Center is an important milestone for Clariant's strategy to support the global mining industry's focus on sustainability.

In 2022, Clariant launched the D3 PROGRAM to offer more sustainable solutions to the oil and gas industry. D3 consists of three key pillars – Decarb, Densify, and Detax. Decarb utilizes nanotechnology and ingredients from renewable sources to reduce carbon emissions in customers' operations. Densify facilitates logistics improvements and furthers sustainability initiatives through a new application with concentrated products. Detox incorporates formulations with more environmentally acceptable raw materials. Key benefits of the program include simplifying logistics for both transportation and storage, introducing more environmentally acceptable formulations and concentrated ingredients that require smaller dosage application, optimizing onshore and offshore operations, and improving operational safety. Thanks to the D3 PROGRAM, more possibilities to positively impact oil and gas operations can be created.

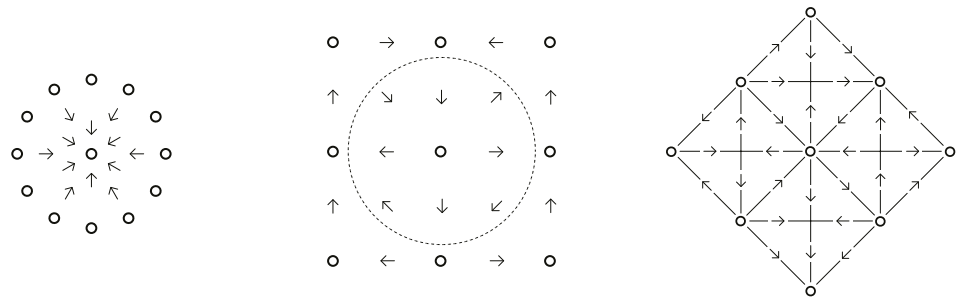
Digital innovation

Digital innovation at Clariant encompasses a full array of digital-relevant capabilities and tools, including lab automation, high-throughput experimentation, data science, computational science, and IT capabilities. By smartly leveraging such digital technologies at each stage of the product innovation cycle, Clariant is able to design new offerings, discover new applications for existing products, reduce environmental impact of chemicals, and maximize their sustainable value, while decreasing the overall time-to-market.

Besides investing in digitalization and continuously adopting digital technologies as they mature, Clariant has also recently launched the Digital Innovation Factory, an innovation program that drives business opportunities through a comprehensive digital approach, making it possible to continuously differentiate offerings and get better products to the market faster.

OVERCOMING INTERNAL AND EXTERNAL BOUNDARIES WITH INNOVATION NETWORKS[1]

With the advancement of communication technologies (e.g., cloud computing, Internet of Things, big data, and 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.



[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

Initial focus has been given to selected business segments such as Paints & Coatings, where digitalization can significantly improve efficiency and effectiveness of formulation processes and simultaneously enable new digital business models and go-to-market strategies. Via the Formulation Factory approach, digital assistants support Clariant formulators and customers to quickly identify the most suitable products for a given application.

More recent Digital Factory activities are directed towards accelerating early discovery processes and step-change safe-and-sustainable-by-design initiatives to leverage portfolio enhancement opportunities and continuously differentiate offerings. These efforts further support the positioning of Clariant as a leader in Sustainability & Innovation.

Clariant completed the rollout of the newly implemented Electronic Lab Notebook (ELN) for digitalization of R&D data. The ELN has 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. In March 2022, new software improvements were released for better usability of the tool. Going forward, yearly updates are scheduled, starting from Q4/2023. In collaboration with a scientific R&D software company, further improvements to the system will be implemented. System improvements include functional extensions in the formulation module, which is used to document all chemical formulations, experiment ingredients lists, and created mixtures.

Innovation management formats

Clariant has two cutting-edge innovation formats: the Innovation Engine (iEngine) and the Innovation Garage (iGarage).

iEngines implement a sequence of virtual and face-to-face workshops to identify, prioritize, and develop high-quality, less obvious technology solutions for unmet customer needs. iEngines occur at a very early stage of the innovation process to eliminate less attractive options quickly, as developing viable technology options often takes several years.

iGarages host a cross-functional team that is supported by external experts and innovation coaches. The team convenes off-site over two to six months to develop business options in collaboration with prospective customers and other stakeholders. By applying agile design thinking and lean start-up methodologies, the iGarage format fuels the innovation pipeline through fast-paced, highly efficient ideation processes that support the development of market-validated innovations in discovery and incubation stages, which the business units subsequently scale further.

Clariant complemented these innovation management concepts with a lean four-week format called miniGarage. It is limited in scope and accelerates innovation projects by applying an outside-in view to a set of critical assumptions.

The formats take place according to the business units' needs and availability of prospective team members. In 2022, Business Unit Additives held an iGarage on alternative low-carbon footprint material streams for flame retardants. Business Unit ICS held two iGarages: The first was in the area of material Sustainable Palm Oil Sourcing, while the other was in the area of Crop Solutions. Business Unit Catalysts held an iGarage on Phthalate-Free Polypropylene Catalysts. All projects were aimed at developing more sustainable solutions for the respective business area. For each iGarage, more than 50 customer and industry expert interviews were conducted to better understand the market and upcoming business opportunities. Responsible use of limited natural resources was the target.

Innovation collaborations

Clariant continuously seeks collaboration with external partners for the promotion of innovation. Its vast network comprises of experts in various important fields.

The Open Innovation (OI 2.0) initiative supports Clariant's business units in identifying collaboration partners around the world, which connects Clariant to the external technology and innovation community. It opens the innovation process for collaboration with external partners, such as governments, academics, companies, and citizens. It also introduces external ideas and tools to expand the innovation pipeline value and outputs. An important element of Open Innovation is the crowdsourcing of technology solutions through Open Innovation challenges. Clariant's EcoCircle program is a prominent example of the OI 2.0 approach.

Low-Carbon Emitting Technologies (LCET) initiative by the World Economic Forum

Clariant is a founding member of the → Low-Carbon Emitting Technologies (LCET) initiative by the World Economic Forum and the world's leading chemical producers. It aims to accelerate the development and upscaling of low-carbon emitting technologies for chemical production and related value chains. It is the first CEO-led coalition in the chemical industry, focused on transformation toward a decarbonized and circular future. LCET targets include the use of alternative feedstocks as plastic waste, CO_2, and biomass, which are highly related to Clariant, for example, through the company's activities for utilizing agricultural waste to produce sunliquid® 2G ethanol.

SusChem

Clariant is committed to the initiatives and strategies of the European Technology Platform for Sustainable Chemistry (SusChem ETP), playing an active role on its board of directors and management team. SusChem ETP's vision is a competitive and innovative Europe where sustainable chemistry and biotechnology provide solutions for future generations. SusChem ETP focuses on technology priorities across advanced materials, advanced processes, and digital technologies. It also addresses horizontal topics such as sustainability assessment innovation, the safe-by-design designation for chemicals and materials, and the enhancement of education and skills capacity in Europe.

Processes4Planet by the European Commission

Processes4Planet is a cross-sectoral public-private research and innovation partnership between industry and the European Commission. It brings together process industries (chemicals, refineries, steel, cement, minerals and ores, ceramics, nonferrous metals engineering, water, and paper), small and medium-sized enterprises, research and technology organizations, NGOs, regions, and others. Processes4Planet is consistent with the European Commission's Industrial Strategy for Europe and the EU Green Deal. The partnership aims to develop and deploy the innovations needed for a profound transformation of the European process industries to make them circular and to achieve overall climate neutrality at the EU level by 2050, while at the same time enhancing their global competitiveness.

Circular Bio-Based Europe Joint Undertaking

In the context of the European Green Deal, the European economy needs to become climate neutral, more circular, and more sustainable while remaining competitive in the global market. A strong, resource-efficient, and competitive bio-based innovation ecosystem can decrease Europe's dependency on and accelerate the substitution of nonrenewable fossil raw materials and mineral resources. The bio-based industries can help Europe become the world's first climate-neutral continent by replacing nonrenewable fossil resources with waste and sustainably sourced biomass to produce industrial and consumer goods. This is possible while increasing the sustainability and circularity of production and consumption systems. Clariant is committed to fostering the transition to a sustainable bio-economy. One way to drive this journey is Clariant's membership in the Bio-Based Industries Consortium (BIC) – with BIC representing the private party in a EUR 2 billion public-private partnership with the European Commission, called Circular Bio-Based Europe Joint Undertaking (CBE JU). Clariant is not only a founding member of BIC, but also active on the BIC Board, the BIC Programming Working Group, and the BIC Programming Core Team. CBE JU is supporting research and innovation activities in the field of sustainable bio-based solutions under the umbrella of Horizon Europe, the EU's research and innovation program for 2021–2027. In 2022, a strong focus of BIC was the joint development of CBE JU strategic and programming documents. In a structured co-creative process between BIC, the European Commission, and the CBE JU Programming Office, calls for proposals were developed for publication in the Annual Work Programs.

Power-to-X initiatives

Power-to-X initiatives convert green electricity into chemical energy sources in order to store electricity and use it as electricity-based fuels for mobility or as raw materials for the chemical industry. The »Power« in »Power-to-X« stands for electricity from renewable sources, while »X« represents the many purposes it is used for and the many forms it is transformed into.

Carbon2Chem is a large national initiative in Germany, funded by the Federal Ministry of Education and Research. Together with partners from industry, institutes, and academia, Clariant develops technologies to reduce CO_2 emissions from steel manufacturing following the Carbon Capture and Utilization (CCU) approach. Based on the very promising results achieved in the first Carbon2Chem phase, the ministry decided in 2020 to prolong its substantial funding until 2024 in order to develop the technology further and prepare for a large-scale technology rollout.

In 2022, the ongoing project work revealed stable and high-performance results for the developed gas purification technology – Clariant's catalysts for gas conditioning and sorbents for impurity removal. Consequently, stable and productive methanol synthesis from CO_2-rich steel off-gas was demonstrated by Clariant's Megamax 800 industrial catalyst. Thanks to the substantial support of the Federal Ministry of Education and Research, the consortium is preparing for some piloting projects at a scale of 4 000 tons/year of methanol production, which will start in 2023 at an industrial site with a large CO_2 point source, such as steel, cement, or waste incineration. Another large national initiative funded by the German Federal Ministry of Education and Research is Kopernikus. Together with Hydrogenious LOHC Technologies and several partners from academia, Clariant successfully

addressed improvements of the Liquid Organic Hydrogen Carriers (LOHCs) technology. The technology aims to use LOHCs to safely store and transport renewable hydrogen to filling stations or the chemical industry. In 2022, the LOHC technology developed within Kopernikus was demonstrated at a newly inaugurated hydrogen fuel station close to Nuremberg/Erlangen together with the project partner Hydrogenious LOHC Technologies.

Clariant is also a partner in TransHyDE, a project funded with €135 million from the German Federal Ministry of Education and Research to develop catalysts and technology for green ammonia, i.e., ammonia produced with renewable energy. This substance is a potential substitute for conventionally produced ammonia and significantly reduces its carbon footprint. Due to its higher density, converting hydrogen into ammonia is an economically viable method for hydrogen transportation and release at the point of use. Clariant currently develops new and improved catalysts for hydrogen release. TransHyDE is one of three flagship hydrogen projects aiming to prepare Germany's entry into the hydrogen economy. In 2022, the foundation for the development of highly active catalysts for the decomposition of ammonia was laid by Clariant and the academic partners. Moreover, the strong networking with the engineering partners and users will boost the development of an energy-efficient solution.

Collaborations with academics

In 2022, Clariant engaged in more than 65 scientific R&D partnerships. The well-funded catalysis research partnership with the prestigious ETH Zurich continues to be successful. The goal is to advance the understanding of catalyst properties from the nanoscale to the macroscale level. Together with the ETH Foundation, Clariant will sponsor – and collaborate in – fundamental chemical research projects, promoting talented ETH scientists and students.

»MuniCat« is a long-standing strategic partnership with the Technical University of Munich and has run since 2010. It is dedicated to the research, development, and application of innovative, pioneering catalysis technologies. One topic of this collaboration is the development of new manufacturing routes for high-quality plastic precursors that are independent of crude oil.

CHF 150 000 in grants for outstanding Catalysis research

Three student research projects were selected in 2022 on the basis of their focus on using catalysis to drive forward sustainability in the chemical industry. The talent program is part of Clariant's research cooperation with the prominent academic institution ETH Zurich. It acknowledges the outstanding research in the field of Catalysis of young talents and aims to support sustainable transformation in the chemical industry.

An award went to Andrea Blankenship, an MIT graduate and a doctoral student at ETH Zurich for her research into enabling the valorization of methane into desired liquid products that are important pathways for greener fuel and chemicals.

Ivan Surin, a graduate in chemical engineering and bioengineering and a doctoral candidate at ETH, received the award for his research into developing ammonia oxidation catalysts for sustainable nitrous oxide production.

Yuya Kakiuchi, a graduate in engineering sciences at Osaka University and a doctoral student at ETH Zurich, received an award for his study that is laying the foundation for further understanding olefin conversion processes, focusing on developing interplay between spectroscopy and computations to understand the role of the »catalyst ingredient.«

→ Read more on the Clariant research grants.

Other collaborations

In 2022, Clariant also collaborated with companies and customers on new products development.

In a first and unique cross-industry collaboration for the Personal Care industry, »Design4Circularity,« Clariant, Siegwerk, Borealis, and Beiersdorf combined expertise to tackle the challenges of creating truly circular consumer packaging that is 100 % based on retrieved plastic packaging waste for cosmetics applications.

Furthermore, Clariant actively contributes to industrial clusters, consortia, and organizations to drive collaboration along the value chain. A holistic approach to solving complex and challenging situations is the preference. As an example, Clariant joined the Action for Sustainable Derivatives (ASD) in 2021. ASD is a collaborative initiative that brings together companies in the cosmetics, home and personal care, and oleochemicals industries to collectively tackle supply chain issues around palm oil and palm kernel oil derivatives.

AWARD

In 2022, Clariant won several awards for outstanding innovative products:

- Gold prize of the BSB Innovation Awards 2022 in the category »Environment« for natural active ingredient Rootness® Awake
- Innovation Award for EARTH® technology (ICIS Innovation Awards, Best Process Innovation and Best Refining Technology, category Hydrocarbon Processing). → Read more in the chapter Climate Protection.
- German Romanian Business Award

AWARD

Sustainability Awards

- Sustainability Award for EnviCat® N_2O-S catalyst (American Chemistry Council/ACC Sustainability Leadership Award, category Environmental Protection)
- Sustainable Beauty Award 2022 for »Design4Circularity« (category Sustainable Packaging)
- Clariant was named a finalist for the prestigious German Sustainability Award for its holistic approach to drive sustainability forward in the category »transformation area climate«
- DSM Sustainability Award, November 2022, for Clariant's efforts to improve the recyclability of flame-retarded polyamides
- The World Bioeconomy Forum's → Bio Act of the Year
- The business prize → AHK Award

PRODUCT STEWARDSHIP

Human health and environmental safety are of utmost importance to Clariant. A thorough safety and risk assessment for each product is at the core of the company's stewardship approach and forms the takeoff point for its sustainable chemistry commitment. Handling chemicals responsibly and safely, consistent with emerging regulations, is key for Clariant's portfolio risk and opportunity management process. This process enables the company to serve markets with innovative and sustainable products that align with regulatory requirements, while also responding to market trends.

Over the past few years, product stewardship has evolved from a prerequisite for legal compliance into a key enabler for Clariant's business: It includes gathering, analyzing, and assessing regulatory and emerging issues that are relevant to the marketing of Clariant's portfolio.

Sustainability leadership, however, goes even further than assessing human health and environmental safety. It also requires a company to pursue sustainable and innovative solutions proactively. Therefore, Clariant sets a strong focus on continuously steering its environmental performance toward increased sustainability and setting new environmental benchmarks through leading-edge operations and innovation. With the company's vision to become climate neutral by 2050, it has set itself ambitious targets that allow it to measure its success based on clearly defined metrics and milestones. Driven by societal demand and policy attention, customers and markets are increasingly aware of – and sensitive to – the sustainability features of products. By screening products along their life cycles and all innovation projects against strict and forward-looking sustainability criteria, Clariant aims to develop more sustainable and innovative solutions that support long-term value creation.

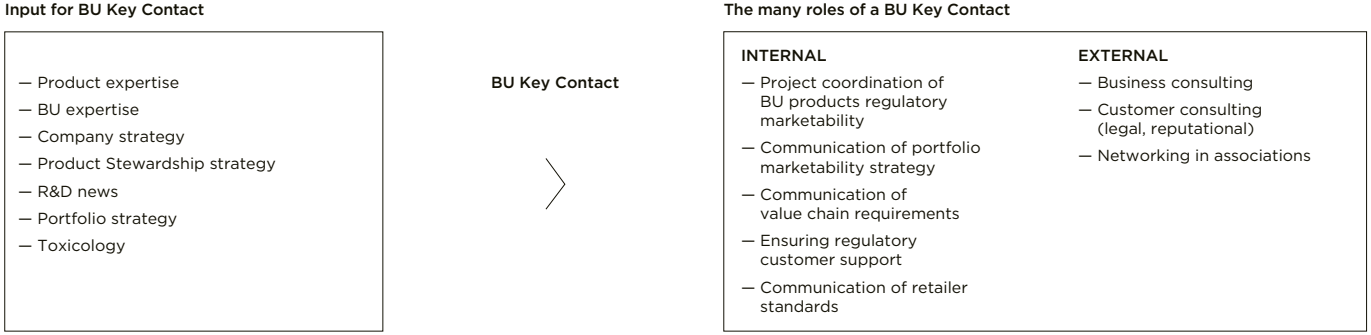
Management approach

The Global Product Stewardship Organization, which is part of the Group Innovation and Sustainability (GIS), exemplifies Clariant's global approach to product stewardship. The organization takes care of health, safety, environmental, and all relevant regulatory aspects of the company's portfolio throughout product life cycles, following clear guidelines underpinned by the Sustainability Policy and process descriptions. In addition, local and regional teams play an integral role by supporting business and external customer communication in all regulatory issues regarding the management of chemicals.

The company has embedded its product stewardship practices into the innovation process, guaranteeing that chemical safety and regulatory compliance are considered throughout the entire product life cycle. Product stewardship ensures adequate communication to consumers on the safe use and handling of products.

Evaluating the management approach includes internal controls, progress-tracking dashboards, benchmarking against peers using external references such as the Dow Jones Sustainability Index, and participation in external networks, discussions, and report reviews. Product stewardship also forms an important part of the indicators for the assessment of Clariant's environmental sustainability pillar by ESG ratings agencies, such as Sustainalytics, MSCI, and others.

008 **BU KEY CONTACT – CONNECTING INTERNAL AND EXTERNAL STAKEHOLDERS**



Senior Product Stewardship experts: connecting the dots

For each business unit, a senior Product Stewardship expert (BU Key Contact) with sound knowledge of the product portfolio of the respective business unit is assigned. This guarantees that business units' Product Stewardship issues will be tackled and solved in an efficient and cost-optimized way. The expert also has a profound knowledge of the company and excellent communication skills to ensure that the Product Stewardship strategy is communicated and implemented in the business unit. To advocate Clariant's interests outside of the company, he or she must be well connected with external networks.

Internally, the BU Key Contact receives full support from all Product Stewardship functions. Any new business information (strategy, portfolio, R&D developments) is conveyed to Product Stewardship. This enables the supervision of all aspects of a product or portfolio – e.g., regulatory matters from cradle to end-of-life for the respective portfolio or toxicology/ecotoxicology. Also, the Product Stewardship experts ensure the Customer Support and Product Steward project coordination of business unit products. Close cooperation and the inclusion of a multitude of aspects are key in creating a portfolio marketability strategy.

Communication in combination with sound knowledge is a key skill for the BU Key Contact. The expert helps prevent the Clariant business partners and customers from reputational or legal risks, and increases customer satisfaction. The senior expert takes care of a proper communication of the value chain requirements, monitors relevant ecological retailer standards, and communicates them.

Networking skills are also crucial to the BU Key Contact. Product Stewardship shapes Clariant's positioning in chemical associations in view of chemicals management development – in close cooperation with Corporate Sustainability. The BU Key Contacts assume proactive regulatory product advocacy in external (chemical) associations on a country (e.g., VCI), regional (e.g., Cefic, ACC) and global level (ICCA).

Regulatory compliance

Clariant monitors regulatory developments worldwide, assesses the impact of changes, and ensures compliance by continuously updating its global state-of-the-art chemical management systems. 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, as well as supply chain communication on product safety.

Clariant fully commits to the targets of the EU REACH (European Union Registration, Evaluation, Authorization, and Restriction of Chemicals) Regulation. After successfully registering all relevant chemicals in 2018, all product dossiers are kept up to date. In 2022, 56 dossier updates have been performed. It continues to cooperate with regulatory bodies and has joined the European Chemical Industry Council (Cefic)/European Chemicals Agency (ECHA) cooperation agreement on the review and improvement of REACH registration dossiers.

Clariant goes beyond compliance with regulatory requirements: As a signatory to the Cefic Responsible Care® Declaration, the company supports the Responsible Care® Global Charter. It promotes the program in several countries and has embedded these principles in its sustainability policy, underlining its strong commitment and leadership in sustainable chemistry.

In a Cefic Long-Range Research Initiative (LRI) project, Clariant's Global Toxicology & Ecotoxicology Group has initiated and co-developed the AMBIT tool. This open cheminformatics data management system supports companies by facilitating chemical safety assessment. Its database includes more than 450 000 chemical structures and a REACH dataset of 14 570 substances and 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.

Countries around the world increasingly introduce chemical regulations like the EU REACH Regulation to ensure the safe use of chemicals. Clariant Product Stewardship closely monitors the developments and takes necessary actions to ensure that the portfolio complies with upcoming legislation, among other factors. In Turkey, Clariant already preregistered the relevant chemical substances. Following the European Chemicals Strategy for Sustainability, Clariant's Product Stewardship organization operates an implementation program to ensure the incorporation of all new legal requirements into its business processes and policies according to the transition periods for REACH respective CLP (the European regulation on classification, labeling and packaging of substances and mixtures). Product Stewardship in 2022 also worked on implementing the new cosmetics regulation in China, the requirements of Turkish REACH KKDIK and of UK REACH.

Sustainable chemistry commitment

Sustainable chemistry encompasses the design, manufacturing, and use of efficient, effective, and safe chemical products and processes that are more environmentally benign. Clariant maintains roadmaps to drive innovation and uncover sustainability-improvement opportunities in the product portfolio.

Clariant is a member of the World Business Council on Sustainable Development (WBCSD). This initiative brings forward best practices and encourages companies to adopt methodologies for evaluating and steering their product portfolio toward more sustainability. In 2021, Clariant supported the development of a set of sustainability indicators for evaluating product portfolios in the chemical industry. In 2022, Clariant further supported the development of the PVP in the WBCSD, enhancing it from PVP 1.0 to PVP 2.0.

The WBCSD also annually assesses the quality of Clariant sustainability reporting. The report for 2022 was evaluated positively in multiple areas. The evaluation also highlighted several strengths, which include: the discussion on how megatrends influence Clariant's strategy, a good variety of implementation and control mechanisms, and a clear and transparent disclosure of performance data.

Assessment of the health and safety impacts of product and service categories

Clariant focuses on reducing certain hazardous substances in its product portfolio and promoting alternatives that exceed the requirements of the relevant regulations. This approach is particularly important in regions where regulatory action is lagging. In 2022, 76.6 % of significant product and service categories were assessed for health and safety impacts. Clariant has thus covered 1.4 percentage points less in the reporting year than in the preceding year.

Genetically modified organisms

Clariant is committed to providing innovative responses to today's global challenges, such as the transition to a low-carbon and circular economy and the ever-increasing demands of a growing world population. For Clariant, biotechnology offers unique opportunities to respond to the demands of a modern and globalized society.

Clariant considers the application of genetically modified organisms (GMOs) as part of its technology portfolio for more sustainable and efficient production processes, particularly the use of genetically modified microorganisms (GMMs). Clariant takes a transparent and responsible stance and is committed to the responsible use of GMOs and safe operations in research and innovation, enzyme production, and sourcing of bio-based raw materials. Clariant has set out this stance in its Position Paper. In 2022, no more products of the Clariant portfolio contain GMOs.

→ Read more on Clariant's Position on industrial biotechnology and genetically modified organisms.

Requirements for product and service information and labeling

Clariant fosters regular and continuous contact with customers and supports them in applying and using Clariant's products. Laboratories are made available to solve specific problems. The service offerings also feature comprehensive product information, particularly with respect to optimum and safe application, health risks, waste disposal, and handling of packaging.

Clariant provides safety data sheets to all parties involved in the handling of substances. The sheets contain the relevant substance data, information on safe handling and storage of products, and measures in the event of product spillages, releases, or fire.

A close relationship with customers is maintained, and all REACH-relevant information is provided. Comprehensive customer support services ensure compliance with the strict communication requirements set by REACH regarding the use of products in the customer chain.

Communication between Clariant and its customers

The Customer Support (CS) function ensures the business support for Product Stewardship-related communication to customers. The CS collects regulatory-relevant data to assess the relevant regulatory status of products and ensure legal compliance for customers. The CS ensures and performs the communication of regulatory status to satisfy customer demand and ensures traceable archiving of customer requests and PS confirmations and statements. There were more than 10 000 individual customer requests in 2022.

Animal testing

Clariant is committed to research on alternatives to animal testing. The Product Stewardship organization supports an active research portfolio and engages with academic partners to facilitate the development of an integrated in vitro approach for developmental immunotoxicity screening. The approach promises to reduce requirements for animal testing in regulatory developmental toxicity studies.

In 2022, Clariant initiated a partnership with the IUF Leibniz Research Institute for Environmental Medicine to develop an in vitro assay battery to characterize chemical effects on the development and function of immune cells as part of the so-called »T-cell-dependent antibody response.« In addition, Clariant has collaborated with the University of Potsdam, resulting in an in vitro screening assay for developmental impacts of chemicals on dendritic cells, a different type of immune cell.

Incidents of noncompliance

Product and service information and labeling

In 2022, there were no fines, penalties, or warnings resulting from incidents of noncompliance with regulations or voluntary codes concerning the product and service information and labeling.

Health and safety impacts of products and services

In 2022, 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.

Marketing communications

In 2022, Clariant had no incidences of noncompliance with regulations or voluntary codes concerning marketing communications.

People

»We introduced new DE&I objectives in 2022, striving for our people to reflect the world's diversity in a workplace that engages everyone.«

Tatiana Berardinelli, Chief Human Resources Officer

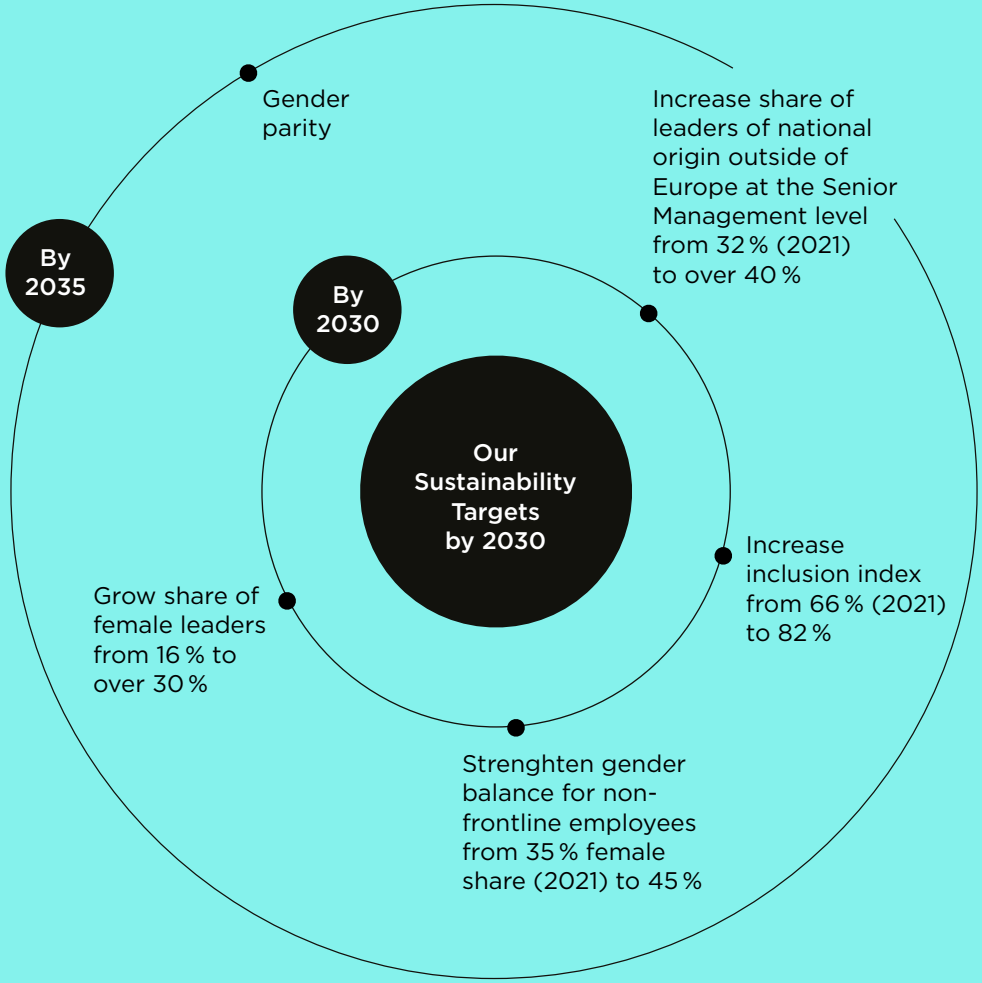
2022

11 148
Total staff

0.24
LTAR

33 %
Proportion of Senior Management level of origin outside Europe

19 %
Female leaders



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EMPLOYEE ENGAGEMENT AND WELL-BEING

Clariant's people are an invaluable competitive factor in developing, improving, protecting, and delivering innovative and sustainable products and services. Long-term success is only possible with motivated and highly skilled employees who create value for the company, its stakeholders, and society. Clariant aspires to foster a better life at work with empowered employees who are well equipped and supported to perform at their best. Creating value for Clariant employees is tightly combined with the four pillars of the company's purpose. Despite many changes and challenges – internally and externally – the overall goal prevails: Clariant strives to be an employer of choice, attracting top talents to help it deliver lasting results.

In 2022, Clariant's transformation set the stage for a more agile, empowered, and leaner organization. Clariant's leadership is convinced that this transformation will enable Clariant employees to grow and fully develop their potential, including skills that will be needed to compete in the future.

Management approach

Employee engagement is driven by each leader at Clariant by influencing the key engagement drivers. Each leader owns and drives engagement for respective team by sharing the strategic roadmap, co-creating goals, clarifying responsibilities, providing necessary enablers and implementing consistent processes. Leadership efforts are supported by enhanced people processes across the employee experience cycle starting from talent acquisition to enabling performance, growth, as well as recognizing and rewarding behaviors and results.

The leaders continued to work in close partnership with Human Resources to strengthen key engagement drivers in 2022. The Human Resources operating model was transformed as of July 2022 to enable business leaders and HR Partners to collaborate and strengthen business and engagement further.

PEOPLE OVERVIEW

	Continuing operations	Discontinued operations	**Total 2022**	2021
Total staff	11 148	n.a.	11 148	13 374
Male (in FTEs)	8 472	n.a.	8 472	10 370
Male (%)	76	n.a.	76	78
Female (in FTEs)	2 675	n.a.	2 675	3 004
Female (%)	24	n.a.	24	22
Employees	6 843	n.a.	6 843	8 046
Male (in FTEs)	4 538	n.a.	4 538	5 408
Male (%)	66	n.a.	66	67
Female (in FTEs)	2 305	n.a.	2 305	2 638
Female (%)	34	n.a.	34	33
Workers	4 305	n.a.	4 305	5 328
Male (in FTEs)	3 989	n.a.	3 989	4 962
Male (%)	93	n.a.	93	93
Female (in FTEs)	316	n.a.	316	366
Female (%)	7	n.a.	7	7
Staff under the age of 30 (%)	15	n.a.	15	14
Staff between the ages of 30 and 50 (%)	59	n.a.	59	59
Staff over the age of 50 (%)	26	n.a.	26	27
Employees in permanent employment contracts (in FTEs)	10 769	n.a.	10 769	12 893
Employees in temporary employment contracts (in FTEs)	378	n.a.	378	481
Full-time employees (in FTEs)	10 836	n.a.	10 836	13 023
Part-time employees (in FTEs)	312	n.a.	312	351
Turnover rate (%)	12.1	n.a.	12.1	11.3
Staff in Research & Development (in FTEs)	>785	n.a.	>785	>900
Total training hours	114 508	n.a.	114 508	164 523
Training hours (Ø per participant)	12.0	n.a.	12.0	13.8
Percentage of total employees covered by collective bargaining agreements (%)	46.8	n.a.	47	47
Lost-Time Accident Rate (LTAR) [1]	0.24	n.a.	0.24	0.16
Lost-Time Accident Rate (LTAR) for contractors [1]	0.30	n.a.	0.30	0.30
Lost Workday Rate (LWR)	5.89	n.a.	5.89	6.85
Employee participation in engagement survey	n.a.	n.a.	n.a.	2 896
Employee Net Promoter Score (eNPS)	n.a. [2]	n.a. [2]	n.a. [2]	–7
Survey responses obtained from customer contacts	n.a.	n.a.	n.a.	n.a. [3]
Customers who want to continue doing business with Clariant (%)	n.a.	n.a.	n.a.	n.a. [3]

[1] LTAR: accidents with at least 1 day lost/200 000 work hours
[2] Engagement survey was launched in January 2023.
[3] Survey is conducted every two years.

Global HR Business Partnering & Regional HR
consisting of Global HR Partners and regional/local HR organizations who partner with the business and functions to drive business results and ensure the delivery of business transformation while ensuring the right talent and capabilities.

Talent & Culture
to foster cultural change toward a highly engaged and performing organization, embedding Diversity, Equity, and Inclusion in behaviors, while both building up critical skills and ensuring a strong leadership bench.

Total Rewards
to provide solutions and expertise for Clariant's compensation, benefits, and rewards programs to support a performance-driven culture and ensure market competitiveness.

HR Services & Solutions
to manage HR processes through the employee experience, while providing digital HR solutions, agile project management, continuous process improvement and relevant analytics.

Measuring engagement
Clariant introduced the Employee Net Promoter Score (eNPS) in 2021, the metric that measures how many employees are likely to advocate for the company. Clariant aims to be in the top quartile by 2030 and will continue to work on improving the employee experience and perception.

In 2022, Clariant took a step further and partnered with leaders, employees, and external consultants to refine the company's listening strategy. A full-scale engagement survey, »Our Voice« was developed with these inputs and launched in January 2023.

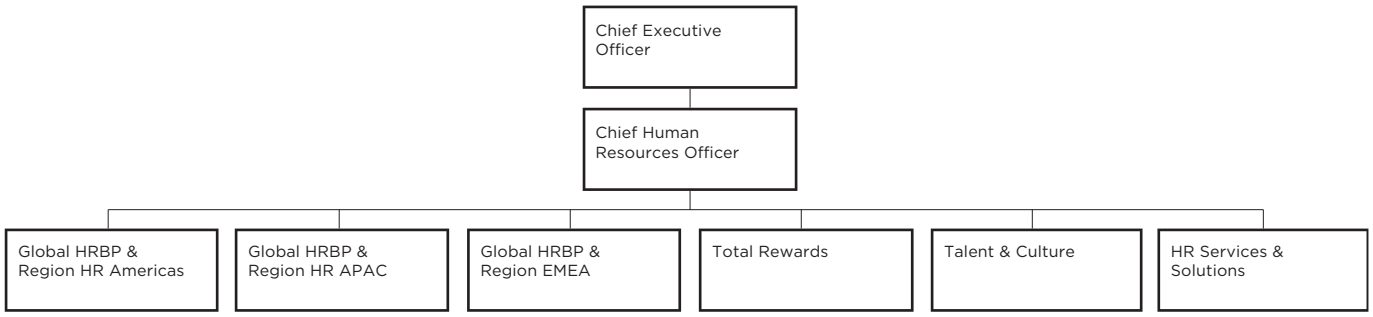
Strengthening employee experience through people processes
A new set of values was introduced in 2022. The values have been woven into Clariant employees' daily work, into how they collaborate with each other, and into how they approach the business and company's customers. The values are recognizable and visible in everything Clariant does.

→ Read more in the chapter Clariant Culture

Employee engagement: volunteering
Clariant encourages all employees to engage in volunteer programs. Projects initiated and executed by the employees have included spending a day visiting kids at a chosen school to teach them about science, collecting and donating over 1 500 crayons to high-poverty schools, partnering with a local organization and cooking food for people in need in their community and organizing several initiatives in solidarity with the people who are fighting or have fought breast cancer.

In addition, all Clariant employees worldwide are granted one day off each year for volunteer work, preferably as a team activity, to support the common good. This day is fully paid and can be taken during working hours. In 2022, for example, on the World Clean-up Day, 17 September, various sites organized local clean-ups to collect litter.

009 **HUMAN RESOURCES OPERATING MODEL**



Knowledge management: understanding sustainability
Clariant encourages its employees to participate in voluntary training and creates learning opportunities. Acknowledging sustainability as a priority for company leadership and long-term thinking, Clariant's approach aims to raise employee awareness of critical issues regarding life with limited resources on this planet. In addition, Clariant is fostering an understanding of the targets and the transformational processes it has set or initiated while taking into account industry or market developments. Against this background and based on a comprehensive learning plan, Clariant has significantly increased its knowledge building activities and supply of information on sustainability or ESG-related topics in 2022.

All content is generally available in three main categories. Self-service content serves as a source for employee-initiated learning via corporate learning and communication channels like »ClariNet« and »MyLearning.« Distributed »leader-led content« is shared and included in presentations used in town hall meetings and topical sessions. The live webinars and Q&A sessions are hosted by internal or external topic experts and may allow for active involvement of the participants.

In other cases, specific content is designed for target groups. For example, training sessions related to the new product carbon footprint calculator, »CliMate,« or the sessions regarding the tracking of energy consumption and greenhouse gas emissions were specifically designed for target groups in the business units.
→ Read more in the chapter Climate Protection.

Sustainability knowledge-building activities are usually supplemented by a variety of ongoing additional formats, such as local learning activities in the regions, or they are driven by specific content, for example, supply chain-related content in the »Together for Sustainability« activities with Procurement. Regularly, employees are encouraged to take advantage of internal channels and access »Sustainable Soundbites,« the »Topic of the Month« intranet, or »Yammer« community posts.

In 2022, particularly appreciated were webinars with external presenters and perspectives on topics such as bio-economy, safe and sustainable actions, and Clariant´s zero waste and pollution activities. They were run as »Lunch & Learns,« and »Tea time Talks« and are considered extremely valuable, as they connect the industry or market context with the Clariant story while also providing for an outside expert opinion. The webinars are scheduled to be continued in 2023, addressing the circular economy, Clariant's climate targets, the European Green Deal, and similar subjects. Other live webinars in the reporting year were hosted by internal topic experts on selected key themes or topics suggested by a targeted audience group (BUs/FUs). Usually, they cover the Clariant story and make the connection to the industry and market context. In addition, two policy dialogue webinars took place in 2022:

— Sustainable aviation fuels – ready for take-off
— Policy Dialogue North America: Discussion of the Inflation Reduction Act

Programs for upgrading employee skills and transition assistance program

People Development, formerly known as Clariant Academy, encompasses all global learning offerings designed to support Clariant's strategy and promote common knowledge, language and values across the organization. A global nomination process for the People Development programs ensures that all relevant employees participate in the training programs. In addition, Clariant offers local trainings, social learnings such as learning communities, mentoring, peer coaching, and on-the-job learning opportunities.

The training offering is based on the »70:20:10 model« from Michael Lombardo and Robert 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, training covers technical and functional skills, safety and sustainability, personal development, leadership, law/compliance, IT skills, and general management skills.

In 2022, 27 participants attended the Leading Organizational Performance program, a joint program with London Business School, after it had paused in 2020 and 2021 due to the pandemic. The hybrid format included digital sessions as well as three days at the campus of London Business School. The net promoter score of 95 % shows the high value of the program.

People Development offers global trainings targeted at business, leadership, and functional skills. It offers a standard curriculum for each level in the organization. Furthermore, the annual training catalogue, with a focus on leadership skills and personal development, includes recommendations for external classes, which are well received as they offer an additional variety of potential training opportunities.

The global learning policy describes how Clariant supports the education of all employees. This policy includes budget frameworks and study assistance guidelines. Clariant increasingly explores offerings to enhance the smoothness of digital learning and virtual self-study learning opportunities. In 2022, virtual trainings build a strong pillar in the learning offering, as they did not require travel time, and content could easily be split into shorter sessions. Because of the flexibility, virtual trainings and virtual self-study opportunities, such as eLearning, will play a major role also in the future as well.

Overall, 9 575 employees participated in training sessions recorded in the central learning management system, MyLearning, for a total of 114 508 training hours. Training sessions included fully virtual, blended (virtual plus face-to-face) and fully face-to-face live sessions, as well as on-demand content, such as microlearning videos, virtual self-learning offerings, and guided learning nuggets. The average number of training hours per employee fell from 13.8 to 12 hours per employee. Each female employee had an average of 11.6 hours, while male employees averaged 12.1 hours of training per year. At Management Level 1–5, 15.2 hours per person were recorded, whereas local managers, professionals, and employees completed 11.7 hours of training.

In 2022, 624 employees benefited from Global People Development programs. New virtual sessions, such as Introduction to Finance, were introduced, with time invested in their design and implementation. Overall, training participation related to safety and sustainability (31.4 %), legal and compliance (14.4 %), functional skills (23.8 %), IT skills (6.7 %), personal development (12.8 %), and leadership (9.6 %). These figures include training sessions beyond the Global People Development program. In 2022, the average feedback score for Global People Development training sessions was 5 (with a maximum possible score of 6). Positive feedback concerned high quality of training content, which included a balanced mix between theory and practice, working with experienced trainers, and working in diverse groups. Exchanges within those groups were perceived as particularly fruitful. Room for improvement was articulated with respect to

AVERAGE HOURS OF TRAINING PER YEAR PER EMPLOYEE

	Continuing operations	Discontinued operations	**Total 2022**	2021	2020 [1]	2019	2018
Number of training hours	**114 508**	**n.a.**	**114 508**	**164 523**	**113 190**	**205 861**	**234 240**
Male	80 547	n.a.	80 547	108 996	75 372	140 548	167 734
Female	33 960	n.a.	33 960	55 526	37 818	65 277	66 506
Management Level 1–5	10 424	n.a.	10 424	12 345	8 897	19 318	26 679
Local managers, professionals, and employees	104 083	n.a.	104 083	152 178	104 293	186 543	207 561
Number of employees participating in training (headcounts)	**9 575**	**n.a.**	**9 575**	**11 956**	**12 630**	**13 891**	**15 791**
Average hours of training that the organization's employees undertook during the reporting period	**12.0**	**n.a.**	**12.0**	**13.8**	**9.0**	**14.8**	**14.8**

[1] 80 % of in-person trainings had to be canceled due to the COVID-19 pandemic.

returning to more face-to-face meetings after the COVID-19 pandemic. But at the same time, suggestions included the desire for more frequent but shorter virtual training sessions.

Feedback analysis reflected satisfaction with the quality of the trainers and the variety of interactive training sessions. The content was considered fit for the target group, and the trainings are well received as an opportunity to connect with employees from other business units and global functions.

Performance, talent, and leadership programs

Clariant offers a wide range of formal and informal programs so that employees can achieve their full potential. The Global People Development Strategy links these programs closely to business needs and implements them effectively and efficiently. The strategy breaks down business challenges into people-related measures that address existing shortcomings in a focused manner. These measures include individual development plans according to managerial feedback, regional learning initiatives based on identified common needs and focus areas, as well as capability development programs to identify strengths and gaps. In 2022, due to the ongoing transformation of the company, the focus was on setting a new learning strategy, as well as on specific training opportunities that enable Clariant employees to work in a more agile and flexible environment and to feel comfortable doing so while delivering on the purpose-led strategy of the organization.

Performance management programs

Clariant's performance management process ensures that strategic business objectives are translated into day-to-day activities. Employees have one-on-one meetings, referred to as »performance dialogues,« with their supervisors to identify objectives, areas for improvement, development actions, and opportunities to leverage strengths and celebrate successes. To guarantee consistency of performance ratings, calibration sessions are part of the performance management process.

PERCENTAGE OF EMPLOYEES RECEIVING REGULAR PERFORMANCE AND CAREER DEVELOPMENT

	Continuing operations	Discontinued operations	**Total 2022**	2021	2020	2019	2018
Total number of employees who receive regular performance and career development reviews (headcounts)	**6 696**	**n.a.**	**6 696** [2]	**7 514**	**7 335**	**10 063**	**10 350**
Management Level 1–5	596	n.a.	596	732	658	776	819
Management Level 1–5 (%)	9	n.a.	9	10	9	8	8
Local managers, professionals, and employees	6 100	n.a.	6 100	6 782	6 677	9 287	9 531
Local managers, professionals, and employees (%)	91	n.a.	91	90	91	92	92
Male	4 764	n.a.	4 764	5 285	5 125	6 687	7 611
Female	1 932	n.a.	1 932	2 229	2 210	3 376	2 739
Percentage of total employees who receive regular performance and career development reviews (%)	**60**	**n.a.**	**60**	**56**	**55**	**58**	**58**
Male	56 [1]	n.a.	56 [1]	51 [1]	50 [1]	50 [1]	55 [1]
Female	72 [1]	n.a.	72 [1]	74 [1]	73 [1]	91 [1]	93 [1]

[1] The percentage is calculated based on the total number of employees in the respective group.

[2] Performance management is a mandatory and consistent global process for all employees of the type White Collar or Manager (except for local exceptions based on employee class and employee level). Performance management is not a mandatory global process for Blue Collar employees, execution depends on local regulations.

The performance review includes goal setting, ongoing feedback, mid-year reviews, and a year-end performance review. This review is retrospective, includes a forward-looking development component, and may also cover discussions about potential progression over several years. The »MyPerformance« tool documents goals and keeps track of the individual performance progress. The outcome of the individual performance review is the basis for employee development and compensation development. In 2022, the performance management process covered 60.1% of all employees. This means that 6 696 employees followed a standardized performance management process.

A new performance management process has been developed and introduced for the 2023 cycle. It is enabling differentiation in performance and driving growth while empowering each employee to champion their individual development. It will enable employees to align their goals with Clariant's strategic pillars and will contribute to Clariant's enhanced performance.

Talent development programs

Clariant evaluates and develops employees nominated by their leaders for their performance and potential through a structured talent management process that follows transparent indicators. These indicators include achievement motivation, analytical skills, adaptability and flexibility, and self-reflection. Besides the learning offering available for all employees, further learning opportunities and talent engagement sessions allow employees to exchange views across units and functions and to show their capabilities to peers and senior leaders. Learning from each other is the motto in monthly leadership talks, in which Clariant's leaders share personal experience from their own career journeys. Another example of developing leadership skills outside employees' own area of expertise is the project-based development initiative in the Business Unit Catalysts, which was launched in 2021 for the first time and run a second time in 2022. In this initiative, commercial talents are invited to become project leaders of selected projects outside their regional or market expertise. While leading the project, they are sponsored and coached by global sales market segment leaders.

Additionally, Clariant maintains a strong talent pipeline. A structured succession planning system identifies, develops, and retains internal talent. This system ensures successful short-, medium-, and long-term succession planning, the availability of candidates, and a diversity of profiles for leadership roles on a global level. Line managers nominate employees for a talent pool based on a high level of performance and a fast track record. Clariant's talent management approach is successful as compared to the overall attrition rate. The lower attrition rate of talents can mainly be explained by the fact that they are provided with a clear perspective on their career planning as well as focused and effective development measures to prepare themselves for future roles. Both of these elements positively impact their retention and willingness to stay with Clariant. In line with the ongoing transformation, the focus in 2022 was on designing a new talent management framework and concept, which will be launched in 2023. Therefore, the number of talent reviews in 2022 has been reduced, and more effort has been put into gathering feedback from existing talents and managers to design the tailor-made new concept. The existing talent pools and succession planning discussions, however, greatly facilitated the placement of positions within the new Clariant operating model.

In 2022, Clariant mapped 104 Senior Management roles with potential successors. In addition, seven global job family talent pools were analyzed. This process identified succession gaps and mitigation measures in each region. As a result, seven job family career paths were designed. These career paths illustrate the necessary steps for managers and talents to move to a new position within the organization.

Clariant's dynamic placement process is reflected in a 41% promotion rate for senior managers in 2022. In the general talent population, the average tenure in a certain role before promotion is around four years. The talent retention rate remained nearly at the high level attained in 2021. Clariant promoted internal candidates into 95% of Senior Management positions and filled 89% of Group Management positions with the internal population.

Clariant increasingly seeks the so-called »hybrid« skillset – a combination of digital know-how and more common, industry-specific skills that are hard to find in the market. For this reason, the in-house Digital Enablement team, which is a part of Digital@Operations under the Operational Excellence umbrella, identifies skill gaps and implements training programs for employees. These programs focus on digital tools, technologies, and agile methodologies. As a result, Clariant is less dependent on external expertise and creates an enabled, motivated, inspired, and future-ready workforce.

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. To maximize the benefits of all programs and initiatives, the company will target several aspects in the coming years. These include promoting a modular talent development approach based on talents' needs, focusing on preparing key talents for business-critical roles, increasing the visibility and transparency of development opportunities; connecting leaders across business units and service units to create synergies, enabling talents to be the champions of their own career development, and improving change readiness.

Leadership programs

Clariant's »Capability Development Program« helps leaders identify requirements for various job levels and development opportunities at organizational and individual levels. In 2022, the focus of the Sales Effectiveness Program of the Business Unit Additives was supported with a Commercial Capability Development Program, in which 20 candidates were evaluated based on the Clariant Commercial Competency Model. Participants were supported with an individual feedback dialogue and development plans based on identified areas for improvement.

In the »Mentoring Program,« talents get the opportunity to team up with experienced leaders to strengthen leadership skills and encourage knowledge transfer across units, functions, and age groups. Since its inception, more than 135 mentees have participated in the program.

The »Team Effectiveness Program,« which was designed to help leaders build high-performing teams, was revised and updated in 2022. It will be offered in a changed format in the future. With the new format, Clariant will ensure it is closely linked to the company's purpose as well as the new values. The goal for it is to create a high-performing culture with leadership teams bringing out the best in people and in the company. The program will enable Executive Leadership Team (ELT) as well as the business unit and functional leadership Teams to effectively deliver as teams and strive toward the aspired joint goals. The program will be designed and facilitated with the support of an external consultant. The rollout is scheduled for the first quarter of 2023, starting with an initial session with the ELT. Thereafter, it will be cascaded down to all business unit and functional leadership teams.

- The »New Leader Assimilation Program« was conducted in 2022. It is specifically designed for newly set-up teams and allows for the leader and the team members to get to know each other while laying the foundation for a high-performing team.
- The »Authentic Leadership Training« was held again in 2022. It provides communication skills for successful and inspiring leaders. The participants attend either 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.
- The »Frontline Leadership Training,« which was designed for production leaders and shift leaders, and the Pioneer Program (enhancing organizational understanding, among other things) will be replaced by new programs supporting the purpose-led strategy. Due to the revision of the company purpose and the introduction of new values, the Leadership Model has changed. Due to the redefinition of the People Development Model, the programs had to be updated accordingly. New programs will be offered as of 2023.

Employee engagement and retention programs

Performance excellence comes from challenged, empowered, and rewarded teams. That is why Clariant conducts various employee engagement and retention programs. They aim to enhance motivation, commitment, and employee performance. Their overarching framework is Clariant's thoroughly phrased purpose.

Clariant's strategies for employee engagement include regular communication on the direction of the company, involvement of employees in strategy sessions, recognition programs, career opportunities, and personal development. In 2021, Clariant analyzed this strategy prior to defining and rolling out its new purpose and will further revise the strategy and include its insights.

Clariant's employee engagement and retention programs also improve its external reputation as a preferred employer, increasing the interest of potential external candidates.

Work environment

Clariant's global employment policy includes key principles and minimum standards for working conditions and labor practices. These standards ensure a fair, transparent, and discrimination-free work environment. The policy commits to equal development and promotion of all people across every organizational level, age group, and personal background. Employment agencies and contractors doing business with Clariant are also obliged to adhere to this policy.

Promoting workplace health and well-being is a local responsibility at Clariant that is addressed by tailored programs in the different regions. Clariant is a member of the »Future of Work« and »Healthy People, Healthy Business« initiatives of the World Business Council for Sustainable Development. The company offers free psychological counseling and stress management trainings in many countries. Employee assistance programs analyze and evaluate mental strain, educate employees on mental health risks, and ensure the development of relief strategies for affected employees. In 2022, Clariant reviewed health and well-being offerings to identify and adapt related offerings for employees.

Awards and benefits programs

Clariant has a comprehensive Recognition Program that acknowledges strong results with a variety of rewards. They range from monetary awards for outstanding achievements and efforts – for example, leading projects or initiatives – to non-financial awards, like the virtual appreciation badges – for example, for supporting colleagues in busy times or for project contributions. In alignment with the global framework, the »MySuccess« platform, and subject to approval by the supervisor, generally any employee can give an award or recognition to any colleague. At the same time, generally every employee is eligible to be awarded or recognized. Multiple awards and recognitions per employee during a calendar year are possible. As in previous years, employees and supervisors took advantage of the opportunity to recognize the achievements and efforts of their colleagues.

Clariant's Global Benefits Policy contains key benefits related to retirement, flexible work arrangements, death, travel, accidents, healthcare, and well-being, among others. It also acknowledges country-specific circumstances and is updated regularly to account for developments in benefit landscapes. Clariant's employees are also offered a range of benefits designed to enhance work-life balance. This includes fitness facilities and contributions to external fitness programs, flexible working hours, home-office arrangements, childcare facilities, contributions to external childcare, and support for employees who take care of elderly family members.

Basis for granting benefits

At Clariant, the basis for granting benefits is regardless of the type of employment contract. However, there may be differences depending on the individual case or local circumstances, such as local legislation, local industry standards, or cultural expectations. The relevant criterion in this case is the customary market standard.

Local programs for stress management

In addition, Clariant's Employee Assistance Program offers free counseling by external specialists for work-related stress, as well as burnout and personal crises. Flexible work arrangements can be made both for work-related stress management and for unrelated extenuating circumstances.

Support for drug addiction and programs to quit smoking

In the event of drug addiction, Clariant has established a procedure for treatment through medical plans and, if necessary, inpatient treatment. Voluntary programs to help employees quit smoking have been introduced at some sites. Clariant assesses the health habits and specific health problems of all employees and updates local programs based on these findings.

Talent attraction

Clariant's talent attraction is guided by a set of global talent acquisition policies and strategies. These policies clearly define the roles and responsibilities of hiring managers, recruiters, and Human Resources personnel, ensuring a smooth and professional recruitment process. Skilled talent acquisition teams collaborate with business units and global functions to identify and recruit the most qualified candidates, while employer branding initiatives promote Clariant's reputation in the job market and attract potential candidates.

In addition, Clariant provides training to leaders through the »License to Hire« program, which equips them with the skills needed to make sound hiring decisions. Clariant has a long-standing commitment to promoting internal talent and fills at least 80% of Management Level positions with internal employees. The company has dedicated talent managers who evaluate potential candidates, conduct talent review sessions, create individual development plans, and participate in internal placement decisions. To showcase and provide feedback on corporate culture topics, they also organize »talent engagement sessions,« which provide internal talent with exposure to senior leaders.

NEW EMPLOYEE HIRES AND EMPLOYEE TURNOVER

	Continuing operations	Discontinued operations	**Total 2022**	2021	2020	2019	2018
Total number of new employee hires (in headcounts)	**1 418**	**n.a.**	**1 418**	**1 438**	**918** [2]	**1 570** [1]	**2 142**
Male	995	n.a.	995	1 057	647	1 080	1 453
Male (%)	70	n.a.	70	74	70	69	68
Female	423	n.a.	423	381	271	490	689
Female (%)	30	n.a.	30	26	30	31	32
Under 30	605	n.a.	605	627	393	744	985
Under 30 (%)	43	n.a.	43	44	43	47	46
30-50	687	n.a.	687	732	464	750	1 045
30-50 (%)	48	n.a.	48	51	51	48	49
Over 50	126	n.a.	126	79	61	76	112
Over 50 (%)	9	n.a.	9	5	7	5	5
Europe	506	n.a.	506	544	304	561	751
Latin America	230	n.a.	230	264	156	317	359
Middle East/Africa	35	n.a.	35	39	31	61	93
North America	308	n.a.	308	168	92	273	436
Asia-Pacific	339	n.a.	339	423	335	358	503
Employees who left (in headcounts)	**1 390**	**n.a.**	**1 390**	**1 556**	**1 522**	**1 817**	**2 047**
Male	980	n.a.	980	1 121	1 085	1 322	1 515
Male (%)	71	n.a.	71	72	71	73	74
Female	410	n.a.	410	435	437	495	532
Female (%)	29	n.a.	29	28	29	27	26
Under 30	320	n.a.	320	353	393	461	540
Under 30 (%)	23	n.a.	23	23	26	25 [4]	26 [4]
30-50	734	n.a.	734	717	668	915	970
30-50 (%)	53	n.a.	53	46	44	50 [4]	47 [4]
Over 50	336	n.a.	336	486	461	441	537
Over 50 (%)	24	n.a.	24	31	30	24 [4]	26 [4]
Europe	539	n.a.	539	629	505	544	588
Latin America	273	n.a.	273	269	310	398	358
Middle East/Africa	29	n.a.	29	30	39	78	142
North America	247	n.a.	247	245	297	433	536
Asia-Pacific	302	n.a.	302	383	371	364	423
Turnover rate (%)	12.1	n.a.	12.1	11.3	10.3 [3]	10.3	11.1

[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 the discontinued Business Unit Masterbatches from H1 for better comparison. Including these statistics, Clariant's 2020 turnover rate is 11.2 %.
[4] The sum does not add up to 100% as the numbers are rounded.

Clariant hires individuals who both share its values and meet the qualifications for their defined roles. In 2022, the company brought on 1 418 new employees, comprising 423 women and 995 men. Europe was the largest contributor of new hires, accounting for 35.7% of the total, followed by Asia-Pacific, which accounted for 23.9% of new hires.

During the same period, 1 390 employees, including 410 women and 980 men, left the company due to different reasons. North America and Latin America had the highest overall employee turnover rates at 19.9% and 15.8%, respectively. The company's turnover rate per Headcount (HC) was 12.1%, a slight increase from 11.3% in 2021.

New ways of recruiting

In 2022, Clariant focused on improving the agility and pragmatism of its recruiting by enhancing its use of digital tools to fill critical positions promptly. By using a digital interviewing platform, Clariant made it easier for applicants worldwide to participate in recruitment processes, with techniques such as asynchronous video interviews, which provided flexibility for both applicants and hiring managers. These digital tools helped to save time and cut costs while still delivering an effective and efficient recruitment process.

Clariant further leveraged digital interview techniques to assess a greater number of candidates during the recruitment process. The digital environment created a fairer and more objective evaluation process, reducing inherent biases and promoting high-quality hiring decisions from a more diverse talent pool. The traditional approach of talent attraction has often relied on predefined profiles, limiting the talent pool.

Clariant is committed to building a sustainable talent pipeline and, to that end, has maintained its engagement with various formats, including virtual lectures, tech talks, and working circles. Additionally, Clariant has intensified its strategic partnerships with renowned universities and institutions, such as the Impact Hub in Basel. These partnerships provide a platform for the exchange of knowledge and ideas, supporting efforts to attract and develop talented individuals for long-term career growth. By partnering with these institutions and continuing its engagement with various formats, Clariant is able to expand its reach, discover new talent, and ensure a robust talent pipeline for future success.

PROPORTION OF SENIOR MANAGEMENT HIRED FROM THE LOCAL COMMUNITY

	Total 2022	2021	2020	2019	2018
Percentage of Senior Management at significant locations[1] of operation who are hired from the local community (%)	57	58	60	60	57

[1] All relevant Group companies except those in North America, where no nationality data is recorded

Internship at Clariant

Clariant visited Vivekanand Education Society's Institute Of Technology (VESIT) in India to hire interns in September 2022. Clariant hired 12 interns from the university, and they are slated to join Clariant in January 2023. This was the first time interns were hired on a larger scale in the CITC team. Five teams participated in the event – Business Intelligence, Custom Development, IT End User Productivity, Innovation & Labs, and Project Management.

Increased flexibility after the COVID-19 pandemic

In 2021, Clariant issued a Global Flexible Remote Working Policy, providing guidance on achieving a healthy work-life balance. As part of this policy, employees are permitted to work from home for up to two full working days per week, or a maximum of 40% of their working hours, subject to the agreement of their line managers. Additionally, line managers may set specific weekdays when all team members are required to be present in the office.

In 2022, Clariant provided additional training to employees on how to better leverage the company's systems for remote work, including team collaboration via MS Teams. As a result, the use of existing tools increased, and global teams were able to intensify collaboration, leading to improved productivity and efficiency. By implementing these measures, Clariant aims to support its employees in achieving a healthy work-life balance while maintaining its commitment to delivering excellent results for its customers.

Parental leave

Clariant recognizes the importance of supporting employees with family responsibilities and provides family-friendly job opportunities. Clariant guarantees all mothers a comparable position for up to one year following the birth or adoption of a child. Additionally, for two years following the birth or adoption, all parents are granted a minimum of ten days of paid leave for family purposes in addition to their standard annual vacation. In 2022, 142 mothers and 236 fathers took advantage of this opportunity. Out of the 373 employees who returned to work in the same year, 135 were female and 238 were male.

Minimum notice periods regarding operational changes

Clariant adheres to all local statutory and operational obligations related to informing employee representatives and employees about any significant operational changes. Employees receive prompt and regular communication about such changes through channels such as the intranet, letters from the CEO and senior leaders, and meetings with local leaders. All information is provided in relevant languages. Clariant also holds regular corporate information sessions, including town hall meetings, to keep employees informed.

DIVERSITY, EQUITY, AND INCLUSION

Clariant is a diverse workplace with 11 148 employees in 38 countries. They represent over 94 nationalities and a wide range of cultures, religions, and professional and educational backgrounds. Diversity makes Clariant an enriching place to work at. Diverse and inclusive teams have the capacity to boost Clariant's innovative strength and enable the company to better address the needs of its customers. Thus, diversity contributes to the company's problem-solving mindset and customer-centric culture.

PARENTAL LEAVE

	Total 2022	2021	2020	2019	2018
Total number of employees who were entitled to parental leave, by gender (FTEs)	**11 148**	**13 374**	**13 235**	**17 223**	**17 382**
Male	8 527	10 370	10 191	13 497	13 613
Female	2 620	3 004	3 044	3 726	3 769
Total number of employees who took parental leave, by gender (FTEs)	**378**	**449**	**445**	**643**	**732**
Male	236	273	317	432	464
Male (%)	62	61	71	67	63
Female	142	176	128	211	268
Female (%)	38	39	29	33	37
Total number of employees who returned to work in the reporting period after parental leave ended, by gender (FTEs)	**373**	**472**	**471**	**599**	**689**
Male	238	333	318	419	466
Male (%)	64	71	68	70	68
Female	135	139	153	180	223
Female (%)	36	29	32	30	32
Total number of employees that returned to work after parental leave ended that were still employed 12 months after their return to work (FTEs)	**421**				
Male	311	n.a.	n.a.	n.a.	n.a.
Male retention rate (%)	93	n.a.	n.a.	n.a.	n.a.
Female	110	n.a.	n.a.	n.a.	n.a.
Female retention rate (%)	79	n.a.	n.a.	n.a.	n.a.
Total retention rate (%)	**89**	**n.a.**	**n.a.**	**n.a.**	**n.a.**

Clariant has been committed to promoting an inclusive and diverse environment and to ensuring a discrimination-free workplace with equal opportunities for many years. The belief that trust, integrity, appreciation, and respect make Clariant and its employees stronger, ensuring long-term prospects, has been incorporated in the Global Employment Policy and in the Code of Ethics. In addition, an inclusive culture has been anchored in Clariant's corporate purpose. In the context of the purpose-led strategy as well as through feedback from employees, customers, and investors, Clariant has set up its Diversity, Equity, and Inclusion roadmap for 2022 to 2030.

»Our new, more complete set of values reflects our purpose statement and our stronger growth mindset, and they will be the basis for an even stronger entrepreneurial culture.«

Conrad Keijzer, CEO

Management approach

The DE&I roadmap was designed with input from a diverse group of employees across Clariant, as well as with external advice. In 2022, Clariant launched its DE&I roadmap with associated DE&I aspirational goals, most of them to be achieved by 2030. Leadership alignment serves as the baseline for all actions in this regard. This was confirmed in November 2022, when the new Executive Leadership Team jointly and firmly committed to advancing toward those goals on a yearly basis. Clariant has now embarked on a journey with the Executive Leadership Team and the Leadership teams in the business units and global functions to further enhance the understanding of some of the key concepts of DE&I.

The DE&I roadmap follows a systematic approach and, as a first step and before the next revision in 2024/2025, it concentrates on four select core elements:

Leadership Commitment

- Clariant leaders continuously commit to a diverse and inclusive workplace and advocate with those who experience inequity and exclusion.
- Leaders will be made accountable for achievements and advocacy for underrepresented groups.

Inclusive Culture

- Everyone at Clariant demonstrates by their behaviors that every single employee is welcome and contributes to a strong Clariant.
- The goal is to increase the Inclusion Index, as a subset of questions from the regular engagement survey, from 66 % in 2021 to 82 % in 2030.

Gender Equality

- Clariant provides equal opportunities to all genders and equal pay for equal work. It aims to achieve gender parity by 2035.
- The goal is to strengthen the gender balance for non-frontline employees from 35 % female in 2021 to 45 % by 2030 and to grow the percentage of female leaders from 16 % to over 30 %.

Cultural Identity

- Clariant gives equal access to career development for all ethnicities and national identities while reflecting the business footprint in the leadership team.
- The goal is to increase the percentage of leaders of national origin outside Europe at the Senior Management level from 32 % in 2021 to over 40 % in 2030.

Clariant introduced the Inclusion Index in 2021, which measures employees' approval level for a select subset of DE&I-related items from the regular annual engagement survey questionnaire. In 2021, the approval level was 66 %.

As of 2023, the relevant criteria for the Inclusion Index refer to the following key areas and questions:

- Belonging: I feel my organization values diversity (e.g., age, gender, ethnicity, language, education, qualifications, ideas and perspectives).
- Uniqueness: My voice is heard when I express my perspectives, even if they differ from the rest of the team.
- Psychological safety: I feel it is safe to speak up without fear of adverse consequences.
- Fairness: Employees from all backgrounds have an equal opportunity to succeed in my organization.
- Authenticity: The managers at Clariant practice inclusion, helping all employees feel important, capable, and understood.

Cultural identity is fostered at the corporate level by increasing the diversity of senior leaders. Beyond that, Clariant aspires toward its employees representing the diverse and global world we live and work in. In each country, efforts might be required to increase the outreach and advancement of underrepresented ethnicities and races within Clariant. On its Diversity, Equity and Inclusion journey, Clariant is committed to continuously reviewing and assessing how it can create a more equitable and inclusive workplace that engages a workforce reflective of the world's diversity.

Diversity, Equity, and Inclusion Aspirations

- Increase the Inclusion Index from 66 % in 2021 to 82 % in 2030
- Achieve gender parity by 2035*
- Grow the percentage of female leaders from 16 % to over 30 % and strengthen gender balance for non-frontline employees from 35 % female in 2021 to 45 % by 2030
- Increase the percentage of leaders of national origin outside Europe at the Senior Management level from 32 % in 2021 to over 40 % in 2030

*At entry level, first-level management level, and the business and technical associates level

DE&I is championed and steered on a strategic corporate level by the DE&I Steering Team, which met for the first time in July 2022 and periodically thereafter. Chaired by the CEO, Conrad Keijzer, and Chief Human Resources Officer, Tatiana Berardinelli, it comprises six additional senior leaders. The role of the DE&I Steering Team is to set the direction on Diversity, Equity, and Inclusion for Clariant by validating short- and medium-term action plans and ensuring they are aligned with Clariant's business goals. It is further responsible for monitoring progress and outcomes, and it acts as an advisor by identifying and providing feedback on the processes and policies that could have an adverse impact on underrepresented groups. In addition to the global goals, each business unit and global function is establishing specific action plans and will review achievements twice a year.

Priorities 2022

In 2022, the focus was on setting the ground for the DE&I roadmap and setting up the DE&I Steering Team, allowing for regular metrics reviews and creating sponsorship for → Employee Resource Groups (ERGs). On a global and regional level Clariant has started partnerships with relevant external initiatives to support these processes, such as the global organization »Inclusive Employers« and the »Charta der Vielfalt« in Germany.

Actions to follow

For 2023, the objective is to focus on increasing the acumen of the Executive and Senior leadership around DE&I, implementing diverse slates and inclusive interview panels in the recruiting processes, developing specific learning measures for talents from underrepresented groups, and leveraging the community-specific knowledge of Clariant's ERGs. Also, based on a first analysis of gender pay gaps prepared in 2022, a roadmap of actions to resolve systematic causes for pay gaps will be defined in early 2023. Educational material and opportunities will be rolled out to increase awareness and understanding, with a special focus on Clariant leaders.

010 **DIVERSITY, EQUITY, AND INCLUSION ROADMAP OF ACTIONS**

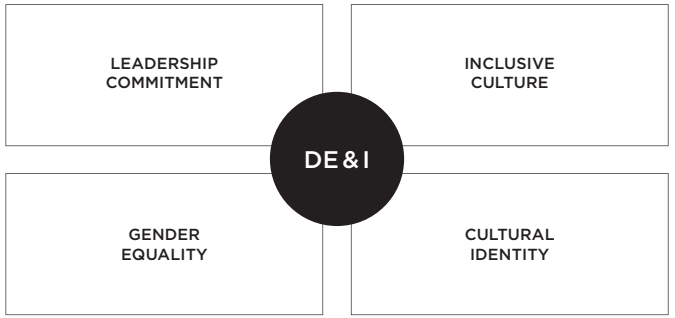
2022 →
- Launch roadmap
- Align leadership
- Implement first actions against baseline

2023 →
- Fully integrate DE&I into core people processes
- Connect to employees' experience

2024 →
- Review progress
- Broaden focus areas and action plans

2025 and beyond →
- Continuously fine-tune measures to ensure embedding of DE&I in Clariant culture and environment

011 **DE & I CORE ELEMENTS**



Selected activities 2022

Clariant representatives engaged in various activities concerning the challenges of traditionally underrepresented groups in the workplace.

International Women's Day: On 8 March, Clariant held a live virtual panel discussion to mark International Women's Day and contribute to its motto and campaign theme for 2022: »#BreakTheBias.« Clariant's Chief Human Resources Officer, Tatiana Berardinelli, moderated a lively panel discussion around gender diversity, bias and allyship. Clariant CEO Conrad Keijzer, two of Clariant's female members of the Board, one of Clariant's senior leaders, and a DE&I practice leader from Kincentric Consulting joined this session.

Appreciating uniqueness and authenticity: During Pride month in June, Clariant raised the flag to show allyship with the LGBTQ+ community and featured a series of portraits of employees who are a part of that community on internal and external communication boards. October was dedicated to Disability Employment. Internal articles as well as a panel discussion with NGO representatives and employees living with a disability and parents of children with a disability provided valuable insights. Also, a global poster campaign was launched to raise awareness about the challenges in offices and production sites.

Global Inclusion Week: In September Clariant dedicated a week to inclusion. Special training on allyship was offered to Clariant's employees. The highlight of the week was an event hosted by an external speaker from Duke University on belonging in the workplace, the call for which has never been more urgent than it is today.

Policies and guidelines

Clariant's membership in the → UN Global Compact, the company-wide Group Policy on Human Rights, and global employment standards form the basis for activities in the DE&I area. → Clariant's worldwide family support policy and → flexible working policy are a strong pillar in allowing parents in general, and particularly women, to combine professional development and personal life. In particular, Clariant is continuously reassessing how it can do more for parents and caregivers.

Clariant is committed to a discrimination-free workplace and to equal opportunities. The company promotes an inclusive and diverse environment where everyone can learn and develop. Clariant has started reviewing its policies for their inclusivity at the end of 2022 and will continue to do so in 2023.

Clariant does not tolerate discrimination based on race, ethnicity, nationality, religion, gender or gender identity, disability, age, marital status, sexual orientation, or membership in a trade union or political party. In hiring, compensation, and promotion, each employee and applicant has the right to be treated solely on the basis of personal abilities, skills, performance, and potential.

Employee resource groups

Clariant strongly encourages employees to join employee resource groups (ERGs) as their leveraged expertise is also a valuable contribution to the Clariant DE&I journey. These groups are open to every Clariant employee. They are voluntary, employee-led, and sponsored by the Executive Leadership Team. They create an open forum for sharing ideas, concerns, and mutual support, and therefore foster a greater understanding of various perspectives. The ERGs also offer support to local communities through volunteering activities.

In 2022, »Clariant Pride,« a new global group, was launched and is sponsored by Richard Haldimann, Chief Technology & Sustainability Officer. It is the mission of Clariant Pride to build a pride community that offers an inclusive space for the LGBTQ+ community and its allies to share experiences. Pride is a safe space for like-minded people. It sees itself as a sparring partner for Clariant to address non-inclusive behaviors and processes and act for the benefits of the LGBTQ+ community. It is a platform to educate all Clariant employees, with the support of allies and ambassadors.

DIVERSITY OF GOVERNANCE BODIES AND EMPLOYEES

	Total 2022	2021	2020	2019	2018
Percentage of individuals within the Board of Directors (%)					
Male	64	73	75	75	75
Female	36	27	25	25	25
30–50	0	9	8	0	8
Over 50	100	91	92	100	92

NUMBER OF INCIDENTS OF DISCRIMINATION

	Total 2022	2021	2020	2019	2018
Total number of incidents of discrimination during the reporting period	0	0	0	2	3

NUMBER OF EMPLOYEES BY AGE GROUP

	2022		2021		2020		2019		2018	
	FTEs	Percent	FTEs	Percent	FTEs	Percent	FTEs	Percent	FTEs	Percent
Total	**11 148**		**13 374**		**13 235**		**17 223**		**17 901**	
Under 30	**1 667** [1]	**14.9**	**1 907** [1]	**14.3**	**1 896**	**14.3**	**2 474**	**14.4**	**2 575**	**14.4**
Male	1 208	10.8	1 398	10.5	1 367	10.3	1 761	10.2	1 832	10.2
Female	458	4.1	510	3.8	529	4.0	713	4.1	743	4.2
30–50	**6 579**	**59.0**	**7 843**	**58.6**	**7 798**	**58.9**	**10 092**	**58.6**	**10 664**	**59.6**
Male	4 914	44.1	5 944	44.4	5 889	44.5	7 844	45.5	8 304	46.4
Female	1 665	14.9	1 899	14.2	1 909	14.4	2 248	13.1	2 360	13.2
Over 50	**2 902**	**26.0**	**3 624** [1]	**27.1**	**3 541**	**26.8**	**4 657**	**27.0**	**4 662**	**26.0**
Male	2 405	21.6	3 028	22.6	2 959	22.4	3 891	22.6	3 870	21.6
Female	497	4.5	595	4.4	582	4.4	766	4.4	792	4.4

[1] The sum does not add up as the numbers are rounded.

MANAGEMENT FUNCTIONS

	Total 2022	2021	2020	2019
Total Management functions (in FTEs)	**585**	**676**	**691** [1]	**812**
Male	477	569	575	674
Female	108	107	115	138
Senior Management functions (in FTEs) [2]	**168**	**190**	**196**	**234**
Male	144	171	177	209
Female	24	19	19	25
Junior Management functions (in FTEs) [3]	**417**	**486**	**495** [1]	**578**
Male	333	398	398	465
Female	84	88	96	113

[1] The sum does not add up as the numbers are rounded.
[2] Executive Committee and Management Levels 1–4
[3] Management Level 5

In 2022, the Women Inclusion Network (WIN) hosted three virtual training sessions on Digital Presence and Sustainability, which complemented its virtual coffee breaks and peer coaching groups. The Women Inclusion Network expanded its scope from Germany to worldwide and is sponsored by Jens Cuntze, Business President Catalysts and APAC. It is the mission of WIN to empower all women at Clariant to make the organization a better workplace for all and help it achieve its aspirational goal of a stronger gender balance. WIN is a grassroots initiative to promote the advancement of female employees within Clariant, using diversity of thought and life experience to fuel innovation.

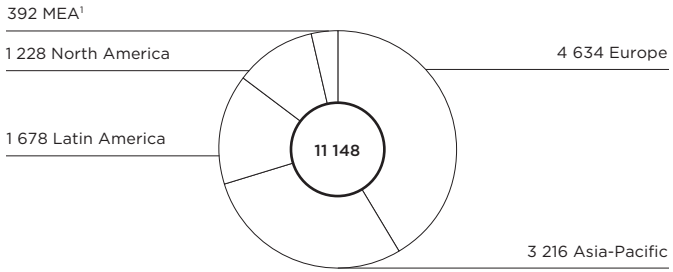
An additional global group is in the process of being created for employees with disabilities, as well as another group in the United States for cultural identity.

BREAKDOWN OF EMPLOYEES PER NATIONALITY

	2022		2021		2020		2019		2018	
Nationality	FTEs	Percent	FTEs	Percent	FTEs	Percent	FTEs	Percent	FTEs	Percent
German	3 044	27.3	3 922	29.3	4 023	30.4	4 595	26.7	4 619	25.8
Indian	1 212	10.9	1 688	12.6	1 517	11.5	1 798	10.4	1 864	10.4
Chinese	1 019	9.1	1 081	8.1	1 031	7.8	1 181	6.9	1 284	7.2
Brazilian	894	8.0	1 053	7.9	981	7.4	1 179	6.8	1 116	6.2
Indonesian	593	5.3	618	4.6	620	4.7	724	4.2	726	4.1
Mexican	357	3.2	535	4.0	521	3.9	597	3.5	598	3.3
Spanish	314	2.8	314	2.3	310	2.3	427	2.5	414	2.3
Polish	288	2.6	276	2.1	282	2.1	351	2.0	347	1.9
Turkish	255	2.3	290	2.2	282	2.1	396	2.3	400	2.2
Japanese	194	1.7	258	1.9	260	2.0	279	1.6	269	1.5
Colombian	189	1.7	191	1.4	183	1.4	268	1.6	261	1.5
Argentinian	171	1.5	186	1.4	191	1.4	219	1.3	230	1.3
French	155	1.4	161	1.2	167	1.3	236	1.4	488	2.7
Italian	125	1.1	137	1.0	140	1.1	515	3.0	529	3.0
Romanian	122	1.1	92	0.7	36	0.3	23	0.1	14	0.1
Swiss	120	1.1	137	1.0	141	1.1	139	0.8	138	0.8
South African	118	1.1	139	1.0	142	1.1	182	1.1	189	1.1
Others (incl. North America, for whom no nationality data is recorded)	1 980	17.8	2 298	17.2	2 408	18.2	3 612	21.0	3 908	21.8

[1] Numbers below 1.0 % threshold

012 **FTEs BY REGION**



[1] Middle East and Africa

Diversity in leadership positions

The company's structured global succession planning promotes a diversity of profiles for leadership positions, encouraging cross-business and cross-functional experiences. As a result of all these efforts, the company achieved representation of women at 24 % of the total workforce and 15.8 % in Management Level positions. With the new DE&I roadmap and associated objectives, Clariant aspires to increase the percentage of female leaders to over 30 % by 2030. The objective concerns all Management Levels, from junior (1) to top (5). The current composition of the new Executive Leadership Team (ELT) with three women and five men reflects a share of female leaders of 37.5 %. On the Board of Directors, 36 % of the members are women, which is above the Swiss gender quota of 30 % for executive boards in publicly traded companies.

Over 90 % of management positions are filled by nationals from the region where the positions are located, and 95 % of all managers are non-Swiss, which reflects Clariant's international footprint and diversity. Regarding the percentage of leaders of national origin outside Europe at the Senior Management level, the objective is to move from 32 % in 2021 to over 40 % in 2030. National origin refers to the nationality associated with the employment contract. This goal relates to the senior and top leadership levels. According to Clariant's growth plans, Europe will represent less than 40 % of sales by 2025. Increasing the share of nationals outside Europe serves the purpose of ensuring that the Clariant leadership reflects the business footprint to include different regional perspectives and increase the quality of global decision-making. While, at the end of 2022, 41 % of Clariant's employees were of European origin, this applies to 61 % of junior management and almost 66 % of senior management.

Proportion of senior management hired from the local community

In 2022, 57 % of all senior managers (Executive Leadership Team 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, citizenships of all member states are considered »local.«

Diversity in the recruiting process

Clariant is committed to fostering diversity and inclusion in its workforce. Clariant recruits and promotes individuals based on their skills and abilities, regardless of their social identity. A diversity of perspectives and ways of thinking is seen as essential to driving innovation and growth.

Clariant uses a variety of strategies to ensure that its recruitment practices support its DE&I goals. These include targeted outreach efforts to underrepresented groups, training on unconscious bias, and the use of inclusive language in job postings. Clariant also utilizes data to track progress toward DE&I targets and to identify areas for improvement. By continuously evaluating and improving recruitment practices, Clariant is able to attract and retain a diverse talent pool that is reflective of the communities it serves.

Ratio of basic salary and remuneration of women and men

Fair payment is fundamental for the company. Regional and local HR teams work to avoid or eliminate discriminatory practices in work-related activities. This applies in particular to pay, training, career guidance, and social security. Globally, the average base salary of female employees in 2022 rose to 98.2 % of the average salary of male employees. Departures were not included in these calculations. In 2023, Clariant will continue to analyze potential gender pay gaps and define corrective measures if needed.

OCCUPATIONAL HEALTH AND SAFETY

As a global chemical company and a responsible employer, Clariant is strongly committed to promoting and protecting a healthy culture in the workplace. Zero accidents worldwide is the goal Clariant aims to achieve. Therefore, processes regarding occupational safety are top priorities to protect Clariant's employees, ensure seamless manufacturing operations, and meet legal requirements and regulations at any time. Aside from observing health protection, meeting safety requirements is paramount for staff morale, labor costs, and productivity, as well as operational costs.

Management approach

Occupational Health and Safety at Clariant is managed globally by the Environmental Safety and Health Affairs (ESHA) department. In addition, the company has appointed ESHA experts worldwide who are responsible for Occupational Health and Safety in all countries and across all business units. All measures apply to all employees who work under the direct supervision of a Clariant employee (Clariant full-time employees and supervised workers). This also includes contractors who must follow Clariant's rules and measures.

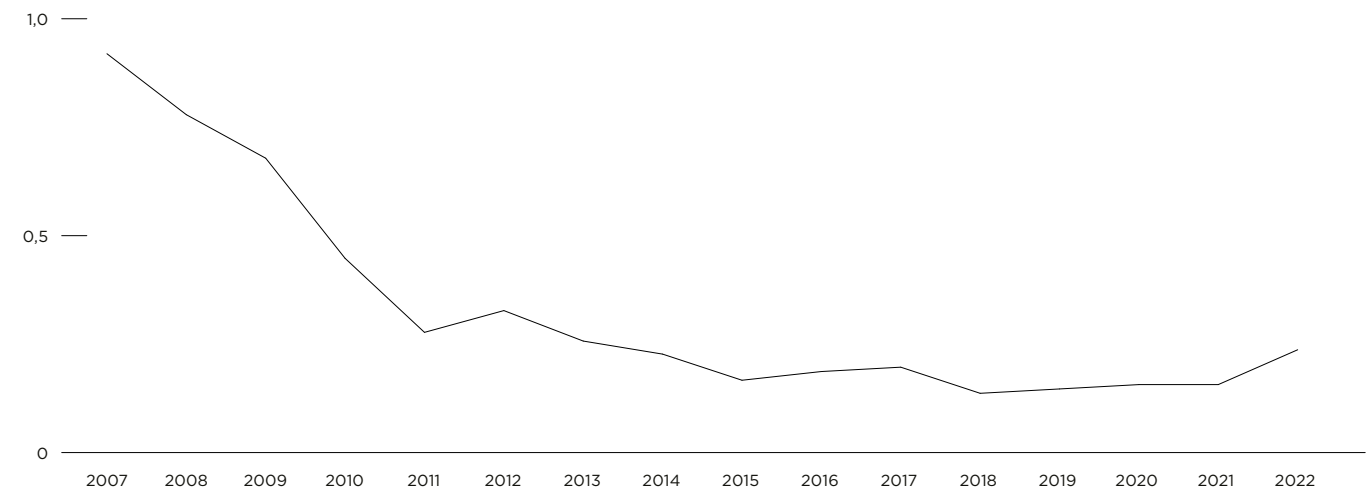
To ensure the health and safety of employees, Clariant has a set of principles and guidelines in place. They are accessible online in the Group Management System (GMS) database for the employees in various languages. The ISO 45001 standard, which formulates requirements for an Occupational Health and Safety management system, is authoritative. Clariant made the transition from the current OSHAS 18001 certification to ISO 45001 in 2020. In 2022, audits were carried out in accordance with ISO 45001. The certificate confirming compliance with the standard is available on the → Clariant website.

Further guidelines cover a variety of safety issues, such as fire and explosion protection, the handling of hazardous substances, and the identification of risks in chemical production. In addition, Clariant adheres to the precautionary principle when it comes to risks that have not yet been fully clarified scientifically. The safety of employees and the work environment is also anchored in Clariant's sustainability policy.

Goals and measures

Clariant aims to achieve a zero accidents culture and be a leader in safety in the chemical industry. Progress in this area is linked to the bonuses of management, and safety is integrated into the daily routines of all operations. In 2022, Clariant decided to move from LTAR, as bonus-relevant metric, to DART (Days Away, Restricted, or Transferred). This increases the focus on smaller events in addition to the more severe lost-time accidents, which helps to establish a zero-accident culture.

013 **DEVELOPMENT OF CLARIANT LOST-TIME ACCIDENT RATE (LTAR)**



In 2022, the overall health and safety performance at Clariant's sites declined slightly. The total number of lost-time accidents rose from 23 in 2021 to 29 in 2022. In addition, 9 lost-time accidents occurred involving contractors, which is a strong decrease compared to 17 accidents in 2021. First aid was required for 83% of all recorded injuries; 12% needed medical treatment; and 5% of recorded injuries were restricted work cases. The most frequent injury types in 2022 were open wounds (24%); sprains, bruises, and contusions (24%); bone fractures (14%); and chemical burns (14%). Burn injuries, internal injuries, poisonings, and injuries by foreign bodies each accounted for 3%. There were no limb losses or injuries due to electrical incidents.

The lost-time accident rate (LTAR) of 0.24 accidents per 200 000 hours of work rose compared to 2021. The total number of lost workdays decreased significantly from 974 in 2021 to 712 in 2022, representing a decrease of 27%. This indicates that job-related injuries were less severe in 2022 than in 2021. Accordingly, the lost-workday rate (LWDR) decreased from 7.3 workdays lost per 200 000 hours of work in 2021 to 5.89 workdays lost per 200 000 hours of work in 2022.

There were no fatalities as a result of work-related ill health in 2022.

For 2022, Clariant defined the DART rate (the Days Away, Restricted, or Transferred), which includes Lost-Time Accidents and Restricted Work cases. With the definition of this new indicator, Clariant increases the insights into the accident occurrence even more to decrease the total number. The milestones are defined on the Group and business unit/service unit level for the calendar year. The DART rate rose from 0.34 in 2021 to 0.39 in 2022.

Tracking health and safety

Safety performance and initiative updates have been integrated as a standing agenda item in every Executive Leadership Team (ELT) meeting, during which all DART events and the overall company performance are reviewed and corrective actions are discussed. One of the consequences has been the introduction of an alert system alerting the business unit heads about any DART event in their business unit within 24 hours of the event, as well as a call from the ESHA responsible to provide more insights into the accident within 7 days of the event.

Clariant utilizes dashboards for Occupational Health and Safety reporting. All sites are obliged to report an accident resulting in loss of work immediately. This concerns cases where the affected employee cannot work for at least one day and cases of restricted work. For these cases, investigation reports are mandatory.

COVID-19 pandemic

In 2022, protecting the health of all employees again has been a top priority for Clariant. Due to the pandemic Clariant had developed more than 30 different response scenarios to react to possible developments. In 2022, many safety measures and hygiene protocols were still in place at the beginning of the year. During the course of the year, various measures were revoked or relaxed, depending on the local situation. The option to work from home remained in place. Testing, wearing masks, and observing safety distance were common precautionary measures throughout the year.

WORK-RELATED INJURIES [1]

	Total 2022	2021	2020	2019	2018
Number of fatalities as a result of work-related injury	0	0	0	0	0
Rate of fatalities as a result of work-related injury (per 200 000 hours)	0	0	0	0	0
Number of high-consequence work-related injuries (excluding fatalities)	0	2	2	0	1
Rate of high-consequence work-related injuries (excluding fatalities) (per 200 000 hours)	0	0.01	0.01	0	0.005
Number of recordable work-related injuries	97	141	157	232	248
Rate of recordable work-related injuries (per 200 000 hours)	0.80	1.00	0.95	1.21	1.31
Number of hours worked	24 196 000	28 440 000	33 262 000	38 556 000	37 796 000

[1] Information about »not employees« (e.g. contractors) are not in the same way gathered like »all employees« (own workers and supervised workers) due to medical data privacy.

OCCUPATIONAL ACCIDENTS

	Continuing operations	Discontinued operations	Total 2022	2021	2020	2019	2018
Lost-time accidents [1]	**29**	**n.a.**	**29**	**23**	**26**	**28**	**27**
Male	27	n.a.	27	21	26	27	27
Female	2	n.a.	2	2	0	1	0
Lost-time accident rate (LTAR) [2]	**0.24**	**n.a.**	**0.24**	**0.16**	**0.16**	**0.15**	**0.14**
Male	0.22	n.a.	0.22	0.15	0.16	0.14	0.14
Female	0.02	n.a.	0.02	0.01	0.00	0	0.00
Lost-time accident rate (LTAR)[2] for contractors	**0.30**	**n.a.**	**0.30**	**0.30**	**0.14**	**0.22**	**0.24**
Lost-time accidents by supervised (non-Clariant) workers (included in the overall number of occupational accidents)	**6**	**n.a.**	**6**	**1**	**1**	**1**	**6**
Male	6	n.a.	6	1	1	1	6
Female	0	n.a.	0	0	0	0	0
Lost workdays (LWDs) caused by occupational accidents	**712**	**n.a.**	**712**	**974** [3]	**1 229**	**661**	**879**
Male	709	n.a.	709	962 [3]	1 229	648	874
Female	3	n.a.	3	12	0	13	5
Lost workday rate (LWDR)	**5.89**	**n.a.**	**5.89**	**6.85**	**7.39**	**3.43**	**4.68**
Number of cases of recordable work-related ill health	**0** [4]	**n.a.**	**0** [4]	**0**	**0**	**3**	**1**

[1] Number of occupational accidents with at least one day's work lost
[2] Occupational accidents with at least one day's work lost relative to 200 000 hours of work
[3] 279 lost workdays (LWDs) from 2019 and 2020 incidents
[4] In 2022, there were no fatalities as a result of work-related ill health.

Occupational Health and Safety programs and training

Occupational safety at Clariant means much more than just wearing the necessary protective equipment. It is a commitment to address safety comprehensively and to ensure that employees come home from work as healthy as when they arrived. To increase awareness of its employees globally, Clariant carries out various trainings and awareness measures every year. In more than 150 locations worldwide, Clariant organized safety weeks in the reporting year. For the more than 120 safety weeks executed in 2022, Clariant provided an information hub with ideas and training modules besides the regular trainings in the different units.

015 **6 LIFE-SAVING RULES**

1 Use fall protection when working at heights greater than 1.80 meters or 6 feet and outside a guarded area.

2 Wear Personal Protective Equipment (PPE) when required.

3 Always work with a valid work permit whenever required.

4 Do not disable safety-critical equipment without authorization and without having additional precautions in place.

5 Use lock out/tag out procedures to protect you from danger.

6 Don't walk or work under suspended loads.

The company continued introducing the Six Life-Saving Rules first presented in 2021. Every worker at Clariant must be aware of Clariant's Life-Saving Rules. They are part of the Code of Ethics and must be complied with. Witnesses to a breach of these rules should immediately notify the line manager or ESHA.

In addition, in 2022, the company conducted work permit checks to improve the quality of the work and, thus, safety.

Protection against health hazards

Clariant's internal guideline »Protection from Hazards to Health« serves to prevent work-related illnesses and regulates the identification of work-related health hazards for all workplaces. The guideline includes defined review criteria and cycles. The Substitution, Technical measures, Organizational, and Personal (STOP) principle defines the hierarchy of measures to be taken to prevent incidents. It must be applied to the control measures. A comprehensive audit system ensures quality and triggers continuous improvements.

Handouts on Occupational Health and Safety-related topics

As part of the »Safety Moments« initiative, more than 375 illustrated handouts have been created for employees at Clariant and the training on Occupational Health and Safety-related topics – from operations to administration – since 2017. These are presented and discussed, for example, at the beginning of meetings and can be accessed via an internal platform. At the end of 2022, there were more than 300 »Safety Moments.«

Reporting near misses and unsafe situations

To report unsafe situations and 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 supervisor. After a work-related incident, Clariant conducts an investigation to identify corrective actions 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 at the Group level by an assigned member of Corporate ESHA. In 2022, the numbers for unsafe situations and near misses stayed at a high level, which shows the high interest in and awareness of safety.

Global program for safe working conditions

AvoidingAccidents@Clariant is a global program that creates safe work environments, raises awareness of safety, and illustrates Clariant's focus on prevention. 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. Since the start of the program in 2007, the lost-time accident rate (LTAR) has decreased from 0.92 to 0.24 in 2022, as can be seen in → Figure 013.

Learning Management System (LMS)

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. Additionally, there are special trainings regarding work-related hazards, hazardous activities, and potential hazardous situations. Additionally, there are special trainings provided by the respective plant and the building management regarding work-related hazards. These trainings are customized and depend on the jobs to be performed.

Hazard identification, risk assessment, and incident investigation

Workplace assessment

As part of Clariant's audit program, internal experts from Corporate ESHA and Integrated Group System Management (IGSM) regularly visit sites to review workplace and process safety standards. To do this, they evaluate the facilities and determine corrective actions to address the main risks. Process Hazard Analyses (PHAs) are conducted regularly by competent personnel at the sites. Clariant established a Process Safety Academy to enhance the standard. This one-week training delivered theory and also practical knowledge on relevant Process Safety topics, facilitating a better implementation of the Process Safety standards at the sites. PHAs are reviewed at least every five years and updated as changes occur. If a change is implemented in a facility, change management procedures ensure that this change is assessed and controlled to avoid risks.

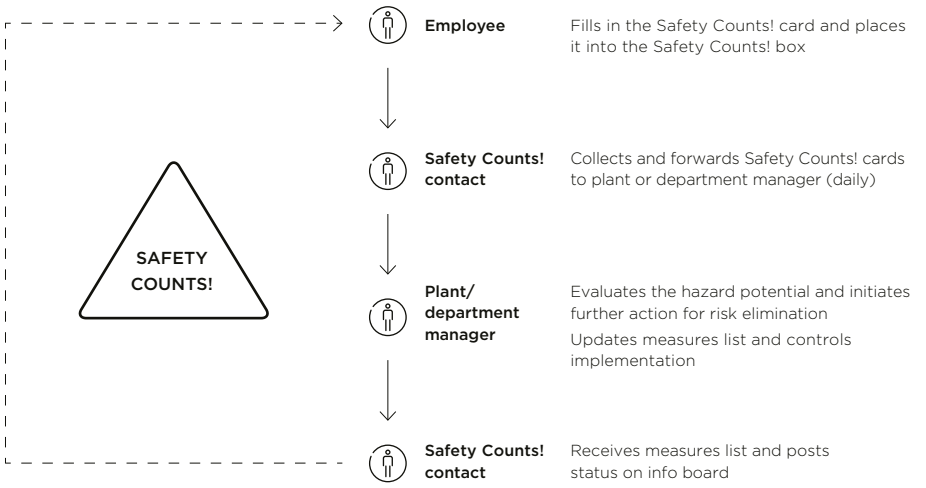
To protect employees from work-related hazards, each workplace undergoes a systematic, multistep assessment. This includes workplace ergonomics, lighting, noise, indoor air quality, humidity, and temperature. If a workplace falls below defined minimum requirements, Clariant takes measures to redesign that workplace.

Employee health checks

At certain workplaces, Clariant carries out regular comprehensive employee health checks. The objective is to detect signs of illness as early as possible. Clariant takes care to obtain special health certificates and to carry out vaccinations that are required for

AVOIDINGACCIDENTS@CLARIANT

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 0.24.



EMPLOYEES COVERED BY AN OCCUPATIONAL HEALTH AND SAFETY MANAGEMENT SYSTEM

	Total 2022	2021	2020	2019	2018
Percentage of employees covered by an Occupational Health and Safety management system (%)	100 [1]	100	100	100	100
Percentage of employees covered by an Occupational Health and Safety management system that has been internally audited (%)	100 [1]	100	100	100	100
Percentage of employees covered by an Occupational Health and Safety management system that has been externally audited or certified (%)	100 [1]	100	100	100	100

[1] The value includes all employees: 12 098 own employees + 1 034 supervised workers.

some jobs. Medical professionals anonymously report problems identified during employee personal health checks. Depending on local laws, these reports are addressed to the local ESHA organization or the appropriate area. The reported information is used to review mandatory workplace risk assessments in accordance with the guideline »Protection from Hazards to Health.« Clariant ensures medical confidentiality.

Worker participation, consultation, and communication on Occupational Health and Safety

Ninety-six percent of staff employed in production are represented by a safety committee. Considering the whole workforce (production, procurement, sales, and management), 88 % of staff are represented. At Clariant, safety issues are also addressed in committees that do not primarily deal with this topic. In case internal standards need to be modified or updated, a working group is established. 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.

OCCUPATIONAL ACCIDENTS BY REGION

	2022		2021		2020		2019		2018	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
Occupational accidents with at least one day's work lost	**27**	**2**	**21**	**2**	**26**	**0**	**27**	**1**	**27**	**0**
Europe, the Middle East, and Africa	16	2	17	2	18	0	15	0	14	0
Asia-Pacific	3	0	0	0	1	0	1	0	2	0
Latin America	7	0	2	0	6	0	4	1	7	0
North America	1	0	2	0	1	0	7	0	4	0

OCCUPATIONAL ACCIDENTS OF CONTRACTORS

	2022		2021		2020		2019		2018	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
Occupational accidents of contractors, with at least one day's work lost	**9**	**0**	**12**	**1**	**6**	**0**	**10**	**0**	**10**	**0**
Europe, the Middle East, and Africa	6	0	8	1	3	0	4	0	5	0
Asia-Pacific	0	0	3	0	1	0	3	0	1	0
Latin America	3	0	1	0	2	0	3	0	4	0
North America	0	0	0	0	0	0	0	0	0	0

CUSTOMER RELATIONSHIPS

Customer Relationships refers to establishing and continuously enhancing relationships with customers. As consumer demands, resource availability, and legal requirements evolve ever more rapidly, Clariant has made it a priority to position itself in such a way as to be able to anticipate impending changes and trends so that it can best recognize and acknowledge its customers interests and needs. Clariant collaborates with customers and takes initiatives to understand how they may be supported in achieving their goals. Engagement includes building and developing relationships with mutual trust. Establishing and maintaining strong customer relationships is important for Clariant throughout its complete value chain – from the procurement of raw materials to the end-consumer markets.

016 **CUSTOMER APPROACH ANCHORED IN VALUES**

— See the world through our customers' eyes
— Anticipate customers' needs
— Serve customers as one team
— Ensure long-term mutual success

Management approach: increasing customer focus

Customer engagement lies at the core of Clariant's commercial strategy. Clariant is committed to adding value for its customers by delivering innovative, competitive, and sustainable solutions, and to creating continuous, profitable growth. In the past years, Clariant has built additional marketing capabilities in its business units to continue its journey from a product-driven to a customer-centric organization. With the introduction of the new purpose in 2021 and the purpose-led strategy, customer focus has been anchored as a purpose dimension. As such, Clariant aims to shape the future with customers and a fruitful collaboration for meaningful impact. To create this impact, Clariant embodies the customer perspective, as well as their demands, and leverages regional market knowledge.

In 2022, Clariant followed up on this approach and shifted the focus even more toward its customers. By refining its sustainability priorities, it reinforced the commitment to work more closely with them, especially in the delivery of sustainable solutions and products. The aim is to go beyond »just chemistry« and offer a tangible benefit to the customers with any new product or formulation introduced to the market. And this is also reflected in the new company claim »Greater chemistry.«

In addition, the new organizational and leadership structure with fewer hierarchical layers and less complexity will help Clariant to continue to provide the best support for customers going forward. The new global company setup allows for more customer proximity in three business units that are headquartered in their respective key markets. With this corporate setup, Clariant started to structure the businesses around markets as opposed to product lines. This shift enables a more customer-centric and agile company.

Understanding customer needs

Creating beneficial partnerships with customers requires a deep understanding of their interests and needs. To promote a mindset supportive of this idea, Clariant announced new values in September 2022. Five values reflect the commitment to a strong and holistic company culture, and it is the first value that directly makes an important connection: Win with our customers, which in the day-to-day work translates into: customer satisfaction is key to Clariant's success.

Customer dialogue

Clariant aims to strengthen the customer experience further. Therefore, it increases interactions through ongoing dialogue with existing customers, new prospects, and other partners along the value chain to uncover new business opportunities. Its flagship customer dialogue project is the customer satisfaction survey, which is conducted every other year. It provides comprehensive customer feedback. Due to the ongoing Group-wide transformation processes in 2022, the next regular survey, however, was rescheduled for 2023.

A highlight event in 2022 was the → Clariant Roundtable on bio-based and segregated surfactants. For this event, Clariant brought together experts in the drive toward a net zero economy. Contents covered by external speakers included regulatory changes designed to encourage the transition (Carbon Trust), technologies required (nova-Institute), and how to inform and educate consumers on the journey (Mr. Goodvertising). The fruitful discussions with Christian Vang and participants focused on how the chemical industry and its customers can connect the dots between rapidly changing regulations and technologies. In addition, ways were considered on how to encourage the end consumer to play the most vital role of all, which is to change their consumption habits.

Clariant, in the Business Unit Catalysts, introduced a new digital customer survey tool called »Customer voice.« For the Business Unit Catalysts, a new digital customer survey tool called »MS Customer Voice« was introduced. With this new tool, feedback is being collected in real time after technical service and marketing events. This enables Business Unit Catalysts to directly and systematically gather feedback about participant satisfaction, as well as information about further/future business and service opportunities. So far, 61 feedback responses were collected for ACT (14) and Marketing (47).

The free online customer portal ClariHub, which was introduced in 2021 and used by the Business Unit Industrial & Consumer Specialties (ICS) to get into direct contact with its customers, has proven to be a popular and successful global tool again in 2022. Having achieved the mark of around 1 700 customers at the end of the reporting year, the ClariHub portal helps Clariant to immediately respond to customer inquiries, and in addition, it serves as »information hub« for Clariant customers with real-time ingredient data and »24/7 access« to various documentation. For example, users are enabled to track key metrics or find reference documents, such as MSDS and TDS files, ecolabel information, trend reports, or webinars. In addition, they are provided with relevant information such as FAQs and troubleshooting tips, as well as company and product details. While ClariHub serves as an extra channel for customer communication and queries, it is also helpful for Clariant to derive additional oversight and visibility. The portal in 2022 was extended with the latest insights from »BeautyForward,« the Clariant global trend platform for the Personal Care industry.

Clariant's customer relationship management system provides employees with a guided process, helping them to prepare and manage business opportunities in a transparent and productive manner. Following up on improving customer relationship management, a new feature was introduced in 2022, which allows for more comprehensive information to be collected and recorded by the commercial team, such as customer requests and contact details.

Identifying opportunities

In every Clariant 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 and sales functions. Clariant regularly analyzes market trends and demands. In addition, leads from the web and follow-up exchanges with the customers serve as a source of information regarding customer needs. As the direct point of contact, Clariant sales managers are trained and sensitive to find out more about customer demands. They document their assessments in the CRM, which serves as the tool to track further actions.

Customer relationships and COVID-19

In 2022, due to a zero-COVID policy in China, Clariant dealt with various restrictions related to this region. Overall, interactions were digital, or, if possible, they involved an increasing number of physical meetings again.

In China, Clariant started a comprehensive digitalization approach called »Dragon Boat« in 2021. »Dragon Boat« efforts are tailored to Chinese user behavior and Chinese search engines. The first projects focused on WeChat, the most popular local digital platform: A dedicated Chinese website and a chatbot for Business Units Additives and Industrial & Consumer Specialties enable Chinese customers to access product information and a digital interaction with Clariant.

Customer journey

In a global 2021 project, Business Unit Industrial & Consumer Specialties (ICS) mapped the customer journey for a typical buying process, from the first contact to delivery and invoicing. The project aimed to improve the customer experience, particularly in the form of responsiveness. From an inside-out point of view, the business unit analyzed the importance of individual touchpoints for customers and compared its performance against competitors. For this purpose, it conducted extensive qualitative interviews with key stakeholders in all regions.

An important outcome and key improvement from this evaluation is »ClariHub« (referred to above), offering easy access for customers to extensive product information. Because of this, it has become easier for customers to identify and select ingredients from the Clariant portfolio. The platform is under continuous improvement, and new functionalities are developed and offered frequently, like the recent developments of BeautyForward and ClariCoat.

With the launch of → »BeautyForward 6« in 2022, Clariant empowers the personal care industry to make natural ingredient choices. With the new → ClariCoat, customers are able to find additives for paint formulation with just a few clicks.

Data-driven strategies

Due to increasing raw material and energy costs, Business Unit ICS in 2022 continued the algorithm-based price optimization modeling. These algorithms recommend pricing corridors for individual customers and products. This automated process saves significant time for analysis and computation. The algorithm optimization continues further in 2023, expanding the data driven capabilities in identifying pricing outliers and value-based pricing opportunities.

Additional price management tools help the company to integrate different perspectives and information, to arrive at optimum prices, and to track them. In 2022, Clariant developed the »churn prediction tool,« using data and statistics to identify the risk of losing a specific customer business. This tool will remain relevant and valuable in times of increased market volatility.

Customer privacy

In 2022, Clariant received no substantial complaints from outside parties or regulatory bodies concerning breaches of customer privacy or losses of customer data. Similarly, Clariant is not aware of any identified leaks, thefts, or losses of customer data.

HUMAN AND LABOR RIGHTS

Clariant is firmly committed to protecting human and labor rights in all business operations. This includes the entire supply chain and all contracted workers. The company expects all suppliers and business partners to comply with these human and labor rights standards.

Management approach

The Sustainability Transformation team within Technology and Sustainability, together with the Human Resources, Legal, and Procurement departments, manage human and labor rights at Clariant.

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.

→ Read more about ESG Ratings & Rankings

Human and labor rights policies

Over the years, Clariant has built a comprehensive framework of policies, guidelines, and processes to ensure the implementation of its human and labor rights commitments.

The company's Human Rights Policy Statement is in line with the United Nations (UN) Human Rights Declaration and the International Labour Organization (ILO) Declaration on Fundamental Principles and Rights at Work. This policy statement applies to all direct operations and activities. It states clearly that Clariant expects its suppliers and contractors to uphold the same high standards.

Clariant's Code of Ethics also includes requirements regarding key human and labor rights. It is compulsory for the company's direct operations, including all joint ventures that it controls or in which it holds a majority interest.

Clariant's general terms and conditions of purchase refer to the company's Supplier Code of Ethics. It extends to all its suppliers and their contractors. As part of its collaboration in the Together for Sustainability (TfS) initiative, Clariant regularly assesses its suppliers in relation to social, governance and environmental topics. The assessment is performed by the ratings provider EcoVadis and includes an evaluation of a supplier's management system related to human rights.

Clariant's 2018 → Global Employment Policy and its employment standards guidelines protect workers' rights regarding nondiscrimination, forced labor, child labor, fair working conditions, freedom of association, privacy, effective remedies, and workplace health and safety. The documents are available in local languages. They are also part of the onboarding curriculum for all new employees.

Clariant supports collaborative initiatives that promote sustainability and respect for human and labor rights across the industry. The company is a signatory to the UN Global Compact and a member of the Together for Sustainability (TfS) initiative, and the Roundtable on Sustainable Palm Oil (RSPO).

Priorities 2022

Clariant regularly updates its human and labor rights framework in anticipation of upcoming legislation. In 2022, a focus was on preparing for increased due diligence due to the implementation of the German Supply Chain Act (Lieferkettensorgfaltspflichtengesetz), for which one German Clariant subsidiary will fall into the scope starting as of 2024. A separate project was set up for this, working on the amendment of risk assessment and risk management for own operations and for suppliers for the entity in scope. The objectives are to amend the risk assessment and risk management for suppliers, conduct a risk assessment for Clariant operations, and establish the required documentation and reporting, all with a focus on the German entity. According to timeline and planning, the project will be completed by mid-2023.

In addition, a cross-functional project (Compliance, Sustainability Transformation, Procurement, HR, Communication) started in January 2023 to develop a more comprehensive Human Rights Framework and to review and update associated policies. The goal is to further develop Clariant's governance structure and processes based on a benchmark analysis and mapping of the regulatory requirements and to monitor implementation of measures internally and within the supply chain.

Ensuring human and labor rights compliance in high-risk supply chains will remain a challenge and a priority for Clariant. This relates especially to supply chains for palm-based and other renewable-based materials.

Human and labor rights assessment

Clariant relies on well-established management and monitoring systems that enable the company to detect and mitigate potential human and labor rights risks. Addressing and closing identified gaps in this framework will be a priority for the coming years.

Clariant carried out a human rights due diligence assessment with the support of external human rights experts a few years ago. It evaluated not only potential human rights impacts of its operations and activities, but also the effectiveness of its management and monitoring systems.

Additionally, in a series of interactive working sessions, several key functions and departments prioritized their activities as to their scale and relevance to the business and their probability of having adverse effects on the human and labor rights of workers, communities, and other groups. Subsequently, Clariant carried out a rights assessment for several priority activities, including both internal and external risk factors, such as complex subcontracting arrangements and vulnerabilities of specific groups. A particularly thorough investigation took place for those areas identified as high-risk.

The assessment aggregated human and labor rights risk levels of countries and industries. It found that the company's potential impacts primarily relate to contract labor and supply chains for natural raw materials, particularly in regions with weak legal frameworks. For high-risk areas, it validated specific mitigation actions.

Human and labor rights in the supply chain

Clariant will continue to address supply chain risks connected to the geographic origin of particular raw materials. In 2020, Clariant reviewed its conflict minerals approach to ensure compliance with the new EU conflict minerals legislation.

Based on its 2021 Palm Oil Policy, Clariant started a comprehensive analysis of environmental and social sustainability regarding → palm-based raw materials. To facilitate the transformation in palm oil procurement, Clariant intensified its collaboration with suppliers to increase transparency in the palm oil value chain.

→ Read more in the chapter Bio-Based Economy

Contract labor

Clariant focuses on securing the same working conditions for contractors as for employees, and supports the freedom of association. As laid down in the Supplier Code of Ethics, contractors must have the right to strike and to be members of trade unions in accordance with national or local laws and practices. Within the Together for Sustainability (TfS) Initiative, Clariant assesses Human and Labor rights practices of its suppliers via the EcoVadis platform. This evaluation plays an important role in determining the extent to which Clariant appropriately mitigates adverse human and labor rights impacts.

Overall, 4 242 suppliers of Clariant have performed an EcoVadis assessment, including an assessment of their labor and human rights management systems and practices. The risk exposure, i.e., the percentage of suppliers with an overall EcoVadis score below Clariant's expectations, remains below the 10 % target. Suppliers that present a high or medium risk score are required to work on Corrective Actions and are reassessed after one or two years, respectively, in line with Clariant's Supplier Sustainability Journey. In 2022, 64 % of reassessed suppliers improved their score.

Regarding the tier 1 suppliers, Clariant knows of no cases in 2022 in which the freedom of association or the right to collective bargaining was jeopardized or breached.

Child, forced, or compulsory labor

Clariant condemns all forms of child labor and respects the rights of children. It expressly acknowledges International Labour Organization (ILO) conventions 138 (Minimum Age Convention) and 182 (Worst Forms of Child Labor Convention) as the minimum standard. Human Resources ensures that minimum age provisions of national labor laws and regulations are adhered to and that local Human Resources at Clariant workplaces use adequate and verifiable mechanisms for age verification.

Clariant assesses its suppliers in relation to child and forced labor via the EcoVadis platform. The company is not aware of any cases of child, forced, or slave labor in the company or with its suppliers.

Employee training and involvement

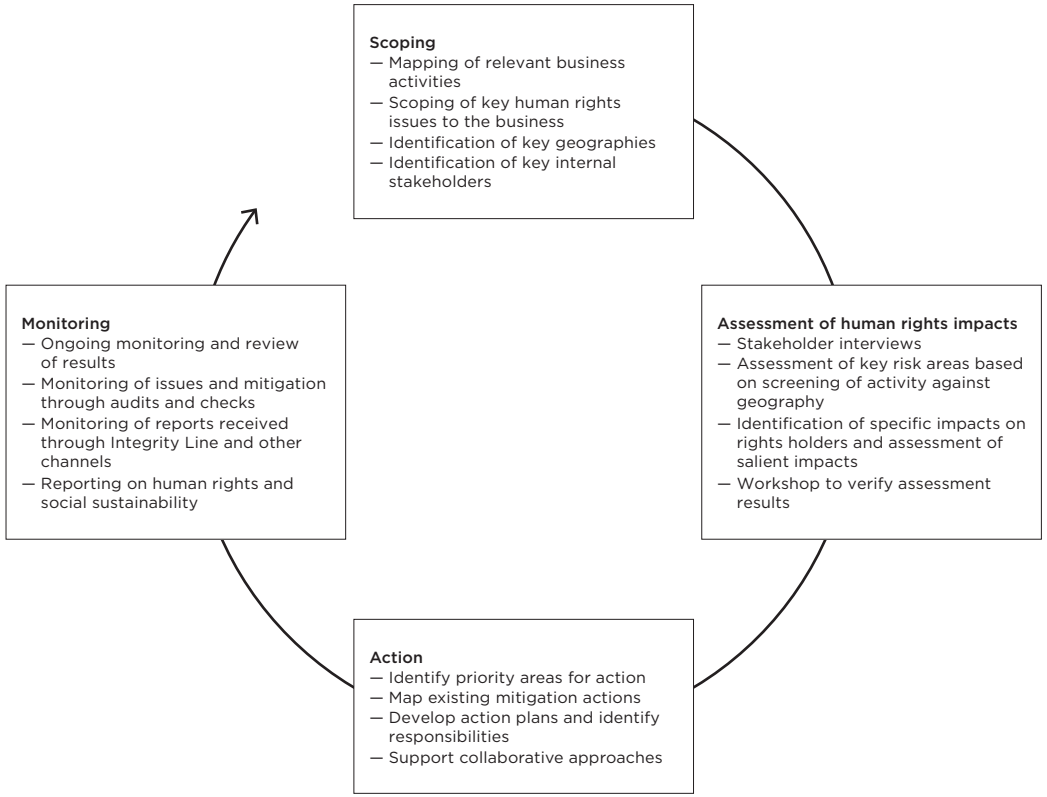
E-learning modules and internal trainings related to the Code of Ethics and to human and labor rights are mandatory for all employees. Participation in these trainings is registered with defaulters receiving a warning.

The company has established the »Clariant Integrity Line,« an independent, third-party operated channel. Clariant employees and external stakeholders can anonymously report all violations of the Code of Ethics, including discrimination and violations of human and labor rights. → Read more in the chapter Business Ethics and Compliance

Human and labor rights clauses in investment agreements and contracts

Investments are subject to Clariant's internal capital appropriation request process, and approvals are granted according to the Management Bylaws. Significant investments are subject to the approval of the Executive Steering Committee or its respective subcommittees and take into consideration financial, strategic, and sustainability criteria, which also include human and labor rights aspects.

017 **KEY ELEMENTS OF THE HUMAN RIGHTS DUE DILIGENCE PROCESS**



Planet

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»Achieving our goals is core to our journey. Helping our customers reach theirs is just as important. Like that we can together drive the global shift toward a sustainable world.«

Richard Haldimann, Chief Technology & Sustainability Officer

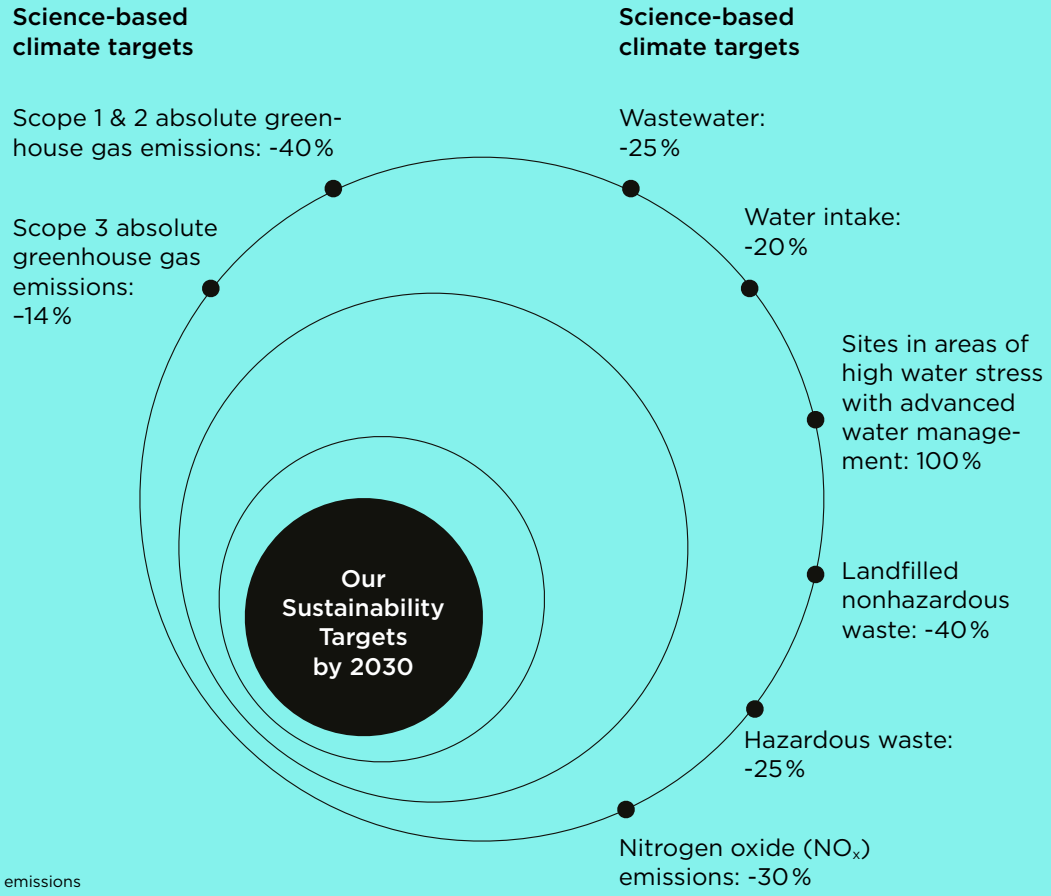
2022

0.64
m t
GHG emissions (Scope 1 & 2) CO_2 equivalents[1]

3.47
m t
Indirect GHG emissions (Scope 3) CO_2 equivalents

2 593
m kWh
Total energy consumption

[1] This includes 0.02 m t of biogenic CO_2 emissions



RESOURCE EFFICIENCY AND ENVIRONMENTAL PROTECTION

Sustainability is a core element of Clariant's purpose »Greater chemistry – between people and planet,« reflecting the company's commitment to environmental sustainability and ethical practice. Interest of investors, customers, and other stakeholders in sustainability topics has been on the rise for years and is growing further. The company follows a responsible approach to resources and the environment. It increasingly employs environmental management systems for responsible energy and water consumption, waste reduction, and the prevention of pollution, toxic and other emissions to air and soil, and further ecosystem impacts. Resource efficiency and environmental protection is also reflected in the 1+5 sustainability focus areas, particularly in »zero waste and pollution,« »fighting climate change,« and »increasing circularity.« Read more in the → Growth Opportunities from Sustainable Products and Solutions chapter. The corresponding technological and behavioral changes affect Clariant's complete value chain, from the raw material feedstock to the end-consumer markets.

The reduction of energy consumption and GHG emissions is a main focus in Clariant's Sustainability Transformation in the field of »fighting climate change.« Examples of this responsible approach to resources and the environment include the significant reduction of fossil fuels such as coal and oil in the Functional Minerals Business (as of January 2023: Adsorbents) through sun drying/natural drying programs at various locations in Europe and Asia. Following the success of exothermal reactions for heat integration in the production site at Gendorf, Germany, the installation of new larger heat exchangers has resulted in the purchase of less steam and a reduction of associated GHG emissions. → Read more in our section focusing on GHG emissions

Management approach

To minimize negative effects on the environment and to safeguard natural resources, Clariant relies on top management's attention and a corporate culture that prioritizes environmental stewardship.

PLANET OVERVIEW [1]

	Continuing operations	Discontinued operations	**Total 2022**	2021 [2]
Total greenhouse gas emissions (Scope 1 & 2, CO_2 equivalents) (in m t)	0.64	n.a.	0.64 [4]	0.82 [5]
Total indirect greenhouse gas emissions for purchased goods and services (Scope 3, CO_2 equivalents) (in m t) [6]	2.58	n.a.	2.58	3.19
Water intake (without »pass-through« water) (in m^3/t production)	2.24	n.a.	2.24	2.17
Wastewater generation (in m^3/t production)	1.62	n.a.	1.62	1.48
Sites in areas of high water stress with advanced water management (%)	75	n.a.	75	56
Landfilled nonhazardous waste (in kg/t production)	45.1	n.a.	45.1	51.5
Hazardous waste (in kg/t production)	11.3	n.a.	11.3	8.8
Nitrogen oxide (NO_x) emissions (in kg/t production)	0.12	n.a.	0.12	0.12
Energy consumption (in kWh/t production)	680	n.a.	680	733
Greenhouse gas emissions (Scope 1 & 2, CO_2 equivalents) (in kg/t production)	168	n.a.	168	185
Indirect greenhouse gas emissions (Scope 3, CO_2 equivalents) (in kg CO_2e/ CHF sales) [6]	0.67	n.a.	0.67	0.82
Total water intake (without »pass-through« water) (in m m^3)	9.5	n.a.	9.5	15.4 [3]
Total wastewater generation (in m m^3)	7.4	n.a.	7.4	11.2
Total quantity of waste (in thousand t)	270.4	n.a.	270.4	225.8
Total energy consumption (in m kWh)	2 592.5	n.a.	2 592.5	3 244.0

[1] Clariant follows the »control approach« in the consolidation of the data

[2] Every three years, Clariant validates environmental data from all production sites. The last full reporting campaign was in 2020, including estimated discontinued data for Business Unit Masterbatches for the first half-year. In interim years, including 2021, the reduced reporting scope comprises the larger sites responsible for at least 95 % of production.

[3] 2021 data is reported with a new definition of water intake without »pass-through« cooling water. Therefore, it is not comparable to previous years.

[4] This includes 0.02 m t of biogenic CO_2 emissions

[5] This includes discontinued operations

[6] Other green house gases (GHG) like CH_4, N_2O, HFCs are not relevant and therefore not included.

In 2022, Clariant incorporated its Environment, Safety, and Health Affairs (ESHA) department into the Service Unit Group Innovation & Sustainability from the Service Unit Group Operational Excellence, to align the organizational structure with the core importance of ESHA in realizing the sustainability transformation of the company. Specialized ESHA teams set the standards for environmental protection and resources. They ensure via audits that the executing business units and country organizations who have full operational responsibility adhere to them. There are quarterly coordination meetings between corporate, regional, and business unit ESHA teams. By 2022, all sites had achieved an external certification and operated along the ISO 14001 standard.

Clariant regularly monitors progress toward its sustainability targets. In 2021, the company developed a new internal dashboard, the »Sustainable Operations Cockpit« (SOC). The SOC shows the actual GHG emissions of every production site by energy category, enabling a monthly tracking of Scope 1 & 2 emissions by site, region, and business unit. This allows for a timely analysis of the impact of GHG emission reduction projects, the impact of production increases, and other production changes as well as to take corrective actions in case of target deviation. Such a detailed tracking has proven to be invaluable to get the organizational buy-in for bonus-relevant targets and to refine the medium-term CAPEX plans for emission reductions. In addition, the Clariant Project Tracking Tool (CPTT) tracks the implementation of individual improvement projects related to environmental performance and the related improvements themselves.

Scope 3 target achievement is monitored monthly by a Scope 3 dashboard. Quarterly progress for Scope 1, 2 and 3 emissions are discussed in the Global Innovation and Sustainability Council and in the Executive Leadership Team Meeting, and then presented to the Board of Directors.

Sustainability targets

In 2021, Clariant published sustainability targets under the lead of the Key Function Sustainability Transformation. In line with the Science-Based Targets initiative (SBTi), the company's → Science-Based Targets demand ambitious absolute reductions by 2030, compared to 2019:

— Scope 1 & 2 greenhouse gas emissions – 40 %
— Scope 3 greenhouse gas emissions from purchased goods and services – 14 %

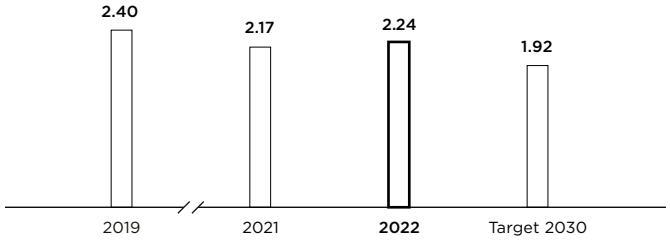
Furthermore, Clariant has set itself more sustainable operations targets for the period 2019–2030, measured by impact per ton of production:

— Water intake (without »pass-through« cooling water) – 20 %
— Wastewater generation – 25 %
— Share of sites in areas of high water stress that apply advanced water management 100 %
— Landfilled nonhazardous waste – 40 %
— Hazardous waste – 25 %
— Nitrogen oxide emissions – 30 %

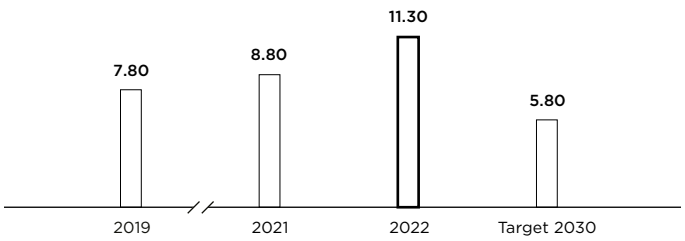
All business units have developed a roadmap toward these 2030 sustainability goals. In this context, they defined improvement projects, planned their implementation, calculated medium-term investments and specific intermediate reduction targets for 2025.

018 **PROGRESS TOWARD 2030 TARGETS**

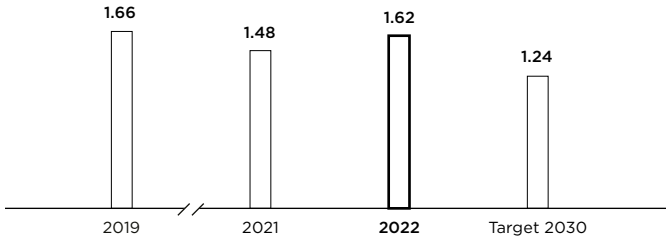
All diagrams refer to the production activities of continuing business only (=without Pigments).



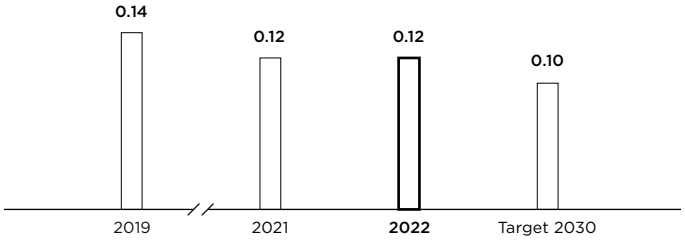
Water intake
in m³ per t produced goods, corresponding to -7 % since 2019



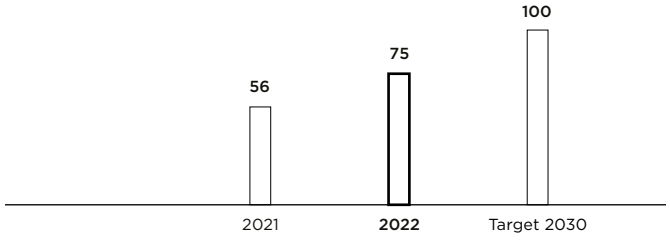
Hazardous waste generation
in kg per t produced goods, corresponding to +45 % since 2019



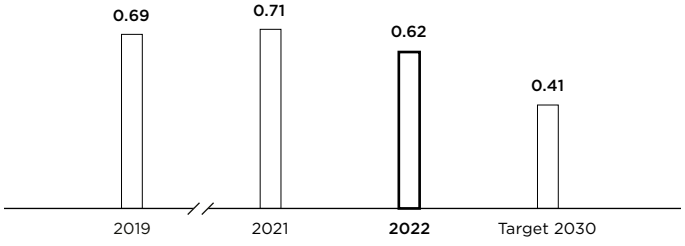
Wastewater generation
in m³ per t produced goods, corresponding to -2.5 % since 2019



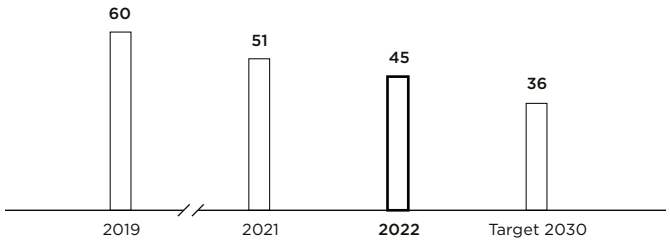
NO_x emissions
in kg per t produced goods, corresponding to -15 % since 2019



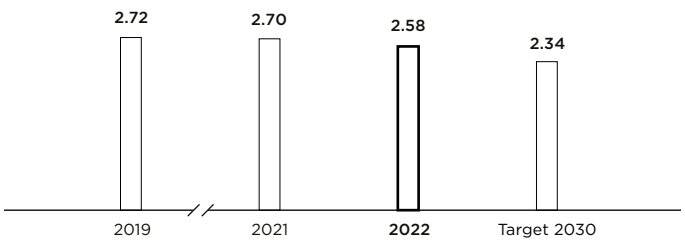
Sites in areas of high water stress that apply advanced water management
in %, target established in 2021



Scope 1 & 2 GHG emissions (excluding biogenic CO_2 emissions)
in mt CO_2e, corresponding to -10 % since 2019



Nonhazardous waste generation
in kg per t produced goods, corresponding to -25 % since 2019



Scope 3 GHG emissions for purchased goods and services (Category 1)
in mt CO_2e, corresponding to –5 % since 2019

Overall, guided by its ambitious targets, Clariant's environmental performance has improved significantly over the last 15 years. The investments related to environment, safety, and health amounted to CHF 36.6 million in 2022, including CHF 15.9 million for environmental protection. The expenditures for environment, safety, and health protection in operative facilities amounted to over CHF 110 million, including CHF 62 million for environmental protection.

Since 2019, CO_2 emissions (Scope 1 & 2) have decreased by 10 %. Year-on-year, Scope 1 & 2 emissions fell by 0.09 million t CO_2 in 2022. Various initiatives enabled the strong 13 % decrease. Scope 1 emissions were reduced by 0.035 million t CO_2 by replacing coal and diesel with solar/natural drying at various sites, replacing coal with biomass for steam generation at Bonthapally in India, and small-scale energy efficiency measures. Scope 2 emissions were reduced by 0.055 million tons of CO_2. Long-term power purchase agreements (PPAs) in Indonesia and the US contributed significantly to reducing GHG emissions, as did renewable electricity certificates (RECs) and solar panels installed at various sites. In addition, the switch from fossil fuels to renewable fuels and low-carbon fuels for steam generation by local steam suppliers had an impact on reductions. Finally, an investment in heat integration to recover energy from a highly exothermic reaction enabled the purchase of less steam from a third-party supplier.

AWARD

Clariant wins prestigious ACC Sustainability Leadership Award for success of its global climate campaign

For the second year in a row, the American Chemistry Council (ACC) acknowledged Clariant's efforts to reduce environmental impact by rewarding the company with the ACC Sustainability Leadership Award in the category »Environmental Protection.«

With a free load of its innovative nitrous oxide removal catalyst EnviCat®, Clariant helps ten nitric acid producers worldwide to cut more than 4 million tons of CO_2 equivalents annually. This corresponds to 95 % of their annual harmful nitrous oxide (N_2O) emissions. Translated into a more palpable number, this corresponds to the emissions of more than 860 000 gasoline passenger vehicles driven for one year. N_2O molecules remain in the atmosphere for an average of 114 years, which is 25 times longer than carbon molecules.

The Sustainability Leadership Award recognizes outstanding initiatives led by chemical industry visionaries advancing sustainability. The external panel of experts judged that Clariant is dedicated to developing innovative products that can considerably reduce its customers' environmental footprint. They applauded Clariant because of the impact the company's products make on helping create a better, more sustainable world.

Watch the video → EnviCat® N_2O

Other goals and targets

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). It creates a global vision and highlights the commitment of the industry to continuous improvement in the environmental, health, and safety performance of chemical producers worldwide.

Furthermore, Clariant adheres to its own goals and targets set in its Sustainability Policy, Code of Ethics, Internal ESHA Management System, ESHA Guidelines and Guides, internal audits, and Management Bylaws of the Executive Committee. They contain principles for environmental protection and prioritize measures that avoid or minimize negative environmental impacts. In 2020, the company finalized its internal quality audits, which are a central element of the ESHA management system.

Corporate programs of resource efficiency and environmental protection

To reduce energy consumption, minimize greenhouse gas emissions, and reduce waste streams, Clariant has set up long-running lead initiatives within the business units, such as eWATCH™ and the Clariant Production System Yield, Energy, Environment (YEE) initiative. Under the leadership of the program »Sustainable Operations,« a »core team for Sustainable Operations« consisting of members from Group Operational Excellence (GOE), Group Innovation & Sustainabaility (GIS), and business units has been established. The team meets biweekly and tracks progress toward annual targets and 2030 targets. There is an exchange regarding best practices, new regulatory developments, new policies and guidelines, and new technologies. As a result, further improvement projects have been identified and are currently being implemented.

eWATCH™

Since 2013, the program → eWATCH™ has helped to minimize energy consumption and increase energy efficiency. It is a process to analyze energy consumption across operations and to identify cost-saving opportunities. Using eWATCH™, Group Operational Excellence (GOE) systematically assesses site maturity and proposes improvement measures along three dimensions: operating system, management system, and employee system. GOE also supports business units in providing investment roadmaps and evaluating technical savings potential to ensure the company achieves its new 2030 targets.

The Clariant Energy Intelligence Guide (CEIG), a component of the eWATCH™ employee system, supports careful management of the company's energy demand. CEIG combines information, advice, best practices, and successful optimization projects, as well as key figures and tools that support energy efficiency. It enables users to systematically improve the energy efficiency of the equipment in use.

With its global initiative »eWATCH™ goes digital,« Clariant aims to profit from the latest measurement and monitoring technologies. They ensure full visibility and high granularity of energy generation and consumption. Analyses in this context show a savings potential of up to 10 % for energy and utilities as well as opportunities for lower costs and greenhouse gas emissions.

Through the Clariant Project Tracking Tool, Clariant measures the outcome of eWATCH™ by cost savings and project tracking (122 projects in 2022). Through the Sustainable Operations Cockpit, Clariant measures the outcome of eWATCH™ by energy consumption and CO_2 impact. Since 2013, Clariant has saved a total of CHF 35.9 million through eWATCH™ by implementing energy efficiency measures and energy-purchasing optimizations. In 2022 alone, the savings amounted to CHF 6 million.

Clariant Production System Yield, Energy, Environment (YEE) initiative

The Clariant Production System (CPS) is an important component of the Clariant Operational Excellence program. Its goal is to achieve the highest productivity and financial performance at the production sites by identifying, developing, and implementing good practices. Applying the CPS leads to improvements in safety, productivity, conversion costs, energy consumption, and product quality.

The Clariant Production System Yield, Energy, Environment (YEE) initiative is a holistic approach built on an organizational blueprint. The YEE team consists of four people, one of whom was contracted in 2022 to focus on energy. The team conducts Maturity Value Assessments, which analyze yield, energy, and the environment of a specific unit with the aim of finding the overall maximum performance. For example, it defines the way to increase yields, improve energy efficiency, and reduce waste streams by analyzing production processes and production units. Jointly with IGSM and ESHA, CPS assesses the site maturity against the blueprint through Operations Assessment audits to create a comprehensive picture of energy optimization potential.

Since its inception in 2012, YEE has saved more than CHF 60.5 million. In 2022 alone, YEE allowed for cost savings of CHF 6.2 million.

Energy

Clariant is continuously optimizing its energy consumption with dedicated energy efficiency programs, including capital expenditures into new energy efficient technologies. Although energy consumption depends on several variables, such as production levels, product mix, and production technologies, Clariant monitors absolute and relative energy consumption as one means to assess the effectiveness of its energy savings measures. The energy efficiency measures, combined with the switch to renewable energy, reduce Clariant's financial risks deriving from carbon pricing. Additionally, the sustainable products provided by the company help customers to save energy in their own production processes.

Clariant established the first Power Purchase Agreement (PPA) together with the site service provider Celanese at a site in Clear Lake (US), covering 20 % of the annual electricity demand.

For five sites in Indonesia – Cileungsi, Cimapag, Medan, Cikampek, and Tangerang – Clariant concluded a ten-year contract for green electricity supply (PPA) generated from geothermal heat.

Other sites like Baroda and Bonthapally, India; Heufeld, Germany; and Jiangsu and Jiaxing, China, partially use directly or indirectly self-generated renewable electricity.

For various sites, Clariant has been purchasing certificates for 100 % green electricity:

— Since 2019: Knapsack, Germany; Jacarei and Vitoria da Conquista, Brazil
— Since 2020: Aberdeen, UK; Novara, Italy; and Oberhausen, Germany
— Since 2021: Bakersfield, Midland, and Reserve, USA; and Suzano, Brazil
— Since 2022: Callao, Peru; Hoechst, Germany; Maipu, Chile; Louisville, USA; Jacarei and Ananindeua, Brazil; Santa Giusta and S'Aliderru, Italy

Furthermore, Clariant has certified some sites according to the new ISO 50001 standard for energy conservation. It passed the surveillance audits globally and prepared for the updated standard at sites, primarily in Germany and Spain. By the end of 2021, around 25 % of production sites (including discontinued business units) were certified, and Clariant produced more than 35 % of its production volume at sites certified with ISO 50001.

Energy consumption

Across the Group, Clariant records total energy consumption from energy sources. While the total energy consumption decreased by 2 % since 2019, the energy consumption per ton of produced goods has increased by 4 % due to product mix and lower production volume.

The company consumes energy in the form of process heat, steam, cooling, and electricity. With respect to process heat and steam, it uses direct primary energy sources to generate them or has them supplied by site service providers. Its main primary energy source is natural gas, while it uses coal only in very few locations. Clariant requires steam to heat reactors and separators, such as distillation columns. Wherever possible, it applies the remaining heat of the resulting condensate either for steam generation again or for internal heating purposes. The company also needs energy for drying as a part of its mineral processing. Clariant reduced its use of fossil fuels significantly through the sun-drying of betonite.

Electricity is necessary for electric motor drives in mixers, pumps, and other process-engineering equipment; for measurement and control technology; as well as for lighting. Clariant endeavors to increase its share of electricity obtained from renewable sources on an ongoing basis. In 2022, it was at 47 %, considering all measured energy sources.

ENERGY CONSUMPTION

	Continuing operations	Discontinued operations	**Total 2022**	2021 [1]	2020	2019 [1]	2018
Total energy consumption within the organization (in m kWh)	**2 593**	**n.a.**	**2 593**	**3 244**	**3 071** [2]	**3 204**	**3 209**
Relative energy consumption (in kWh/t production)	**680**	**n.a.**	**680**	**733**	**758**	**754**	**739**
Total fuel consumption within the organization (in m kWh)	**1 587**	**n.a.**	**1 587**	**1 859**	**1 653**	**1 795**	**1 781**
Oil	8	n.a.	8	70	49	60	83
Natural gas	1 211	n.a.	1 211	1 285	1 154	1 248	1 254
Diesel	83	n.a.	83	128	95	113	54
Energy crops (bagasse/briquettes)	34	n.a.	34	97	65	125	121
Other (e.g., coal, woodchips, waste)	251	n.a.	251	279	289	235	269
Total electricity consumption (in m kWh)	**518**	**n.a.**	**518**	**610**	**626**	**704**	**768**
Total steam consumption from outside the organization (in m kWh)	**488**	**n.a.**	**488**	**759**	**685**	**685**	**660**

[1] Every three years, Clariant validates environmental data from all production sites. The last full reporting campaign was in 2020, including estimated discontinued data for Business Unit Masterbatches for the first half-year. In interim years, including 2021, the reduced reporting scope comprises the larger sites responsible for at least 95 % of production.

[2] First half-year 2020 data for Business Unit Masterbatches are estimated based on the last full reporting campaign in 2017.

Reductions in energy requirements of products and services

Clariant evaluates the energy consumption of products through its Portfolio Value Program (PVP), which looks at energy consumption from raw materials to the use phase. The company aims to help its customers reduce their energy consumption. For this purpose, Clariant reworked its assessment criteria in 2021. A reviewed version of all criteria has been implemented in 2022. Full information on PVP is described in another chapter: → Read more in Growth Opportunities from Sustainable Products and Solutions.

Water

Water management is a key topic for the chemical industry, as it uses water as a product ingredient and in numerous production processes that result in the release of wastewater effluents. Efficient water management protects resources and saves costs in wastewater treatment.

The importance of water management differs according to local conditions. Clariant therefore sets water intake targets on the local level, while it monitors regulatory developments on a regional and national level. The company has implemented strict environmental regulations to ensure that its activities have no measurable impact on the surrounding flora and fauna.

Clariant's plants and office buildings are located almost exclusively in industrial parks or appropriate commercial districts with the required infrastructure. This includes a sufficient and stable water supply primarily from river water supplied via third parties, especially at large production sites. Before discharging the river water into the site's piping system, it passes through various filter systems.

Clariant also systematically tracks water-related business impacts in annual surveys to regional ESHA teams and, where necessary, engages with relevant stakeholders within the organization to deal with specific water-related impacts. Site, regional, business unit, and corporate ESHA teams assess if water-related impacts are taken care of and if sites are prepared for future emergencies, such as storms that can result in the suspension of operations.

Water withdrawal and intake

Clariant records the entire volume of water withdrawn and taken in. Since 2021, the company revised its definition of the Water Consumption indicator and renamed it as »water intake« to exclude pass-through cooling water (sustainability 2030 target KPI). In 2022, of the 9.5 million m^3 total water quantity that the company took in, it used about 13.2 % for cooling production plants, 70.4 % for production processes, and 16.4 % as a product component (sold with the product to customers) or for steam/ice generation, irrigation, or sanitary purposes. Water intake per ton

WATER WITHDRAWAL AND INTAKE

	Continuing operations	Discontinued operations	**Total 2022**	2021 [1]	2020	2019 [1]	2018
Total volume of water withdrawn (in m m^3)	**23.7**	**n.a.**	**23.7**	**42.5**	**40.8** [2]	**44.0** [2]	**49.0** [2]
Surface water	6.2	n.a.	6.2	6.8	6.3	7.5	8.0
Groundwater	4.3	n.a.	4.3	5.2	5.2	5.7	8.9
Seawater	0	n.a.	0	0.1	0.2	0.1	0.1
Third-party water	13.2	n.a.	13.2	30.4	29.0	30.9	31.9
Total water intake consumption (in m m^3)	**9.5**	**n.a.**	**9.5**	**15.4** [3]	**41.0**	**44.3**	**49.0**

[1] Every three years, Clariant validates environmental data from all production sites. The last full reporting campaign was in 2020, including estimated discontinued data for Business Unit Masterbatches for the first half-year. In interim years, including 2021, the reduced reporting scope comprises the larger sites responsible for at least 95 % of production.

[2] The sum of water withdrawal sources does not equal the total water withdrawn due to the exclusion of an insignificant amount of rainwater as a withdrawal source.

[3] 2021 data is reported with a new definition of water intake without pass-through cooling water. Therefore, it is not comparable to previous years.

of produced goods – one of the target KPIs – increased from 2.17 m^3 per ton in 2021 to 2.24 m^3 in 2022 due to significant volume effects and product mix.

For the majority of its operations, Clariant uses fresh water with a total dissolved solids (TDS) concentration of less than 1 000 mg/l. At only one site in Brazil, the company withdraws seawater and treats it before use, because there is no access to fresh water. The exact quality of the consumed water differs with each business and purpose and with the quality needed for the specific product portfolio and production process.

WATER DISCHARGE

	Continuing operations	Discontinued operations	**Total 2022**	2021 [1]	2020	2019	2018
Total volume of planned and unplanned water discharge to all areas (in m m^3)	**7.4**	**n.a.**	**7.4**	**11.2**	**11.4**	**11.9**	**12.6**
Surface water	3.5	n.a.	3.5	7.5	7.7	7.9	8.2
Groundwater	0	n.a.	0	n.a	n.a	n.a.	n.a.
Seawater	0.2	n.a.	0.2	0.5	0.4	0.5	0.5
Third-party water treatment	3.7	n.a.	3.7	3.1	3.2	3.5	3.6

[1] Every three years, Clariant validates environmental data from all production sites. The last full reporting campaign was in 2020, including estimated discontinued data for Business Unit Masterbatches for the first half-year. In interim years, including 2021, the reduced reporting scope comprises the larger sites responsible for at least 95 % of production.

Wastewater management

Clariant leads the water it has used in its various production processes into its comprehensive wastewater management. The company makes sure it follows local regulations regarding discharge limits at all production sites. It treats the priority substances of concern, as identified in the wastewater discharge permit, based on the type of industrial operation, not generalized at the Group level.

For assessing wastewater quality, it consolidates water quality indicators at the Group level, such as concentration of heavy metals, nitrogen and phosphorus compounds, soluble salts, total suspended solids (TSS) as well as biological (BOD) and chemical oxygen demands (COD), which are the indicators of organic content in wastewater. COD discharged in the wastewater decreased significantly from 2 046 t in 2021 to 709 t in 2022 due to lower produced quantities and discontinued businesses.

Before transferring the effluents to third-party or municipal wastewater treatment plants, Clariant often pretreats wastewater at its own sites in a multistage chemical and physical procedure. Only small amounts of heavy metals remain in the discharged effluent, with concentrations partly at or below detection limits. In combination with constant monitoring, this approach ensures that discharged wastewater does not impair receiving water bodies and ecosystems.

In 2022, wastewater generation per ton of production increased from to 1.48 m^3 per ton to 1.62 m^3 due to significant volume effects and product mix.

In 2022, Clariant was imposed six nonmonetary penalties for noncompliance with water discharge limits.

Water risk management

In 2017, Clariant undertook a Group-wide water risk assessment, employing the Aqueduct Water Risk Map developed by the World Resources Institute (WRI). The tool locates the sites in water stress areas and calculates an overall water-risk score as a combination of quantity, quality, and regulatory and reputational risks. Clariant shortlists all sites that fall under the risk category of medium at a minimum. Regional water risk assessments refine the global outcome further with specific knowledge of the sites' geography, water use, operations, revenue, and expenditure. Using this two-step risk assessment, Clariant then shortlists sites located in areas of high water risk and updates these water risk assessments every year.

The risk assessments revealed that in 2022 a fraction of Clariant production sites (<20 %) were situated in areas under water risk and that around 30 % of the total water intake was from sites identified to be under water risk/stress. Also, around 30 % of the total water discharge was to such sites. For these sites, the site management, together with the regional ESHA teams, has performed in-depth assessments since 2019 to conceptualize and execute water risk management at the site level. The aim is to manage risks responsibly, as the sustainability target KPIs for 2030 include a 100 % achievement of advanced water management at sites in areas of high water stress or risk. To ensure continuous operations in such areas, reducing water intake and increasing water reuse are essential.

At the Catalyst production site Cikampek in Indonesia, a detailed site-level water risk assessment was carried out in 2022 by the site operations, together with the country ESHA management. This detailed site-level assessment identified management measures for addressing long-term water risks.

Waste management

Waste management is critical for Clariant: It relates to the company's sustainability commitment and has a direct link to disposal costs. Clariant's waste management performance has improved continuously over recent years thanks to global programs and ongoing efforts at individual sites. During the development and manufacture of products, the company makes every effort to generate as little waste as possible. As part of the circular economy platform and according to its ESHA guideline on waste management, Clariant also tests options to use waste as a raw material, and always prioritizes waste avoidance, recycling, and reuse over disposal.

At the site level, the company minimizes waste generation through high-quality standards and comprehensive planning: Through the Yield, Energy, Environment (YEE) initiative, Clariant improves its yield and reduces its waste. It maintains waste cadasters at each production site and monitors the waste-related data in detail to enable proper classification and handling. Indicators include the weight of hazardous and nonhazardous waste by disposal method, the properties of waste components, and the number and volume of significant spills. Internal records document proper disposal according to local regulations.

Most of Clariant's waste generated is sent to third parties for treatment, recycling, or disposal by contractors approved by local regulators, who comply fully with requirements of transport and waste legislation. Clariant arranges transportation according to the plant the waste originates from, the amounts that accrued during the period, the properties of the waste components, and how the hazardous waste can be recycled or disposed of.

In 2022, Clariant's total waste generation decreased by 4.7%, falling from 74.4 kg to 70.9 per ton of production. The total waste generated decreased by 13% mainly due to production volumes impact as well as measures implemented to reduce non-hazardous waste. The increase in hazardous waste generated is due to waste reduction projects at different sites. In addition, nonhazardous waste decrease did not increase in proportion to the increase in production because more intermediates were sold in 2022 at Business Unit Functional Minerals sites. The total waste generated from production sites is not always directly dependent on the production volume, as the product portfolio changes influence the waste generated significantly. Most of Clariant's nonhazardous waste generated is from the neutralization of acidic wastewater in the Business Unit Functional Minerals.

WASTE BY TYPE AND DISPOSAL METHOD

in thousand t	Continuing operations	Discontinued operations	**Total 2022**	2021	2020	2019 [4]	2018
Total weight of hazardous waste, with a breakdown by the following disposal methods where applicable: [1]	**43**	**n.a.**	**43**	**59**	**63**	**61**	**55**
Recycling [2]	10	n.a.	10	13	17	16	23
Landfill [2]	2	n.a.	2	14	11	14	8
Treatment [2]	31	n.a.	31	33	35	31	37
Total weight of nonhazardous waste, with a breakdown by the following disposal methods where applicable: [1]	**227**	**n.a.**	**227**	**270**	**259**	**277**	**177**
Recycling [2]	14	n.a.	14	30	31	21	20
Landfill [2]	189	n.a.	189	226	221	248	148
Treatment [2]	24	n.a.	24	14	7	8	10
Total waste (hazardous and nonhazardous) [1]	**270**	**n.a.**	**270**	**329** [3]	**328**	**337** [5]	**232**
Total waste (hazardous and nonhazardous) (kg/t production) [1]	**71**	**n.a.**	**71**	**74**	**81**	**79** [5]	**53**

[1] Waste generated 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] The sum does not add up as the numbers are rounded.

[4] Every three years, Clariant validates environmental data from all production sites. The last full reporting campaign was in 2020, including estimated discontinued data for Business Unit Masterbatches for the first half-year. In interim years, including 2021, the reduced reporting scope comprises the larger sites responsible for at least 95% of production.

[5] All figures are rounded, resulting in discrepancies between the total waste generated and the breakdown figures.

Pollution prevention

Clariant is committed to operating sustainably and decreasing pollution that results from its business activities. Decreasing pollution is not only a social mandate, but also required by legislation in many countries around the world. By preventing pollution, Clariant decreases risks to human health and the environment. Consequently, this also reduces the risk of potential liabilities and negative impacts on the brand.

Safety management system

Guaranteeing the safety of people and the environment is Clariant's highest priority. An effective safety management system to identify, assess, and control risks in the production process is indispensable. In close cooperation with the European Process Safety Center (EPSC), Clariant has helped to develop a simple and representative measurement system with the aim of establishing an industry-wide standard.

The system records and systematically assesses smaller substance and energy releases to avoid major incidents. It categorizes them as process safety events (PSE) according to criteria stipulated by the International Council of Chemical Associations (ICCA) as part of the ongoing improvement of the process safety of production systems. In addition, PSE are investigated at the site level with Root Cause Analysis (RCA) techniques, and the measures are followed-up. If the PSE is considered significant (Score ≥ 3 points), the measures are followed-up at the corporate level.

SAFETY MANAGEMENT

	Total 2022	2021	2020	2019	2018
Process safety event rate [1]	0.36	0.46	0.36	0.48	0.46
Number of significant spills	9	6	17	2	4
Total volume of significant spills (m^3) [2]	12.88	13.24	78.69	1.30	6.70

[1] Process Safety Event rate = Number of Process Safety Events * 100 / FTEs

[2] 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 2022, Clariant's rate for Process Safety Events decreased significantly from 0.46 to 0.36. In total there were 43 cases, a decrease of 35% compared to the 66 cases of 2021. Of the 43 cases, 80% (34) had a low impact and, therefore, were in the lowest category. Significant process safety events for Clariant are those with a score of ≥ 3 points according to ICCA criteria. In 2022, Clariant had 9 cases considered significant, compared to 6 cases in 2021. However, the Process Safety Severity Rate is maintained in 0.63. After a process safety event, Clariant conducts an investigation to determine its root cause (using, e.g., fishbone or fault tree analysis) and establish corrective measures to avoid recurrence. The results and the measures are tracked at the site level and at the corporate level with the Corporate Reporting Tool (EBR@ILX) to ensure an effective implementation.

Personal and organizational causes represented 54% of the total PSE, whereas technical causes made up 44%. In 2022, the effective implementation of Management of Change and the first Process Safety Academy positively supported the reduction of PSE. For 2023, a new edition of Process Safety Academy will be conducted in APAC, and refresher trainings on the Safe Behavior program will be delivered.

For 2022, the number of significant spills increased from six to nine with a total volume of 12.88 m^3. Spills of liquids handled in Clariant's production plants are process safety events that fall under the ICCA criteria. They can be of a diverse nature, but in 2021, all of them were contained on-site in paved areas and were adequately retained and treated according to local waste regulations. Nobody was hurt as a result of the spills.

Protection of ecosystems

Ecosystems provide a variety of critical resources and services such as clean water, energy, recreational areas, and protection from flooding. Clariant aims to monitor and remedy all impacts in order to maintain invaluable ecosystems.

Operational sites in protected areas

Since all of Clariant's sites are located in industrial parks or areas designated as industrial zones by local municipalities, they usually do not affect vulnerable ecosystems. However, the company tracks the number of chemical production sites in biological reserves or in areas with a high biodiversity value. In 2022, there were none.

Significant impacts of activities, products, and services on biodiversity

If there are protected areas near Clariant's sites, the company makes sure to follow local regulatory guidelines to prevent pollution in the protected areas. Where possible, it extends its monitoring along the value chain, for example, by evaluating products with its → Portfolio Value Program (PVP), based on which all critical raw materials are specifically reviewed.

If there are unprotected areas, like forests, in the immediate vicinity, Clariant ensures that its production sites do not have any appreciable adverse effect on the surrounding flora and fauna by following all local rules and regulations.

Palm oil

Clariant is aware of the potential impact of palm oil and its cultivation on biodiversity. Therefore, the company is a member of the Roundtable on Sustainable Palm Oil (RSPO) and aims to prevent ecological degradation caused by the clearing of land for palm oil plantations. It emphasizes this palm oil policy in its first new Innovation Arena, which centers on the → bio-based economy.

Clariant promotes global palm oil policy

To raise awareness of the potential impact of palm oil and its cultivation on biodiversity, Clariant promoted the Global Palm Oil Policy within the procurement team in webinars, equipping the team to address Clariant's commitment in their day-to-day discussions with the suppliers.

Bentonite

At bentonite mining locations, Clariant exceeds social and community expectations regarding the conservation of surrounding ecosystems. Clariant's geologists develop plans to minimize environmental impact associated with drilling. This includes carefully removing the topsoil and overburden to preserve it for land restoration. During mining, Clariant ensures that the resident fauna can easily move to adjacent areas. It sun-dries the bentonite before transportation in order to reduce its weight.

When closing mines, Clariant collaborates with local experts to restore the land for forestry or agriculture. In certain areas (such as southern Bavaria), animals from the Red List of Threatened Species have repopulated after reclaiming. With these efforts, Clariant ensures healthy relationships with local communities and protects ecosystems.

CLIMATE PROTECTION

Climate change has been widely recognized as one of the greatest challenges of our time. Shifting weather, increased risk of flooding, and global warming might seriously impair society at large and, thus, Clariant's business and its markets. Clariant strives to be part of the solution by reducing greenhouse gas emissions and increasing efficiency. The company is fully committed to operating sustainably and decreasing pollution from its business activities.

Decreasing pollution is not only a social mandate, but also part of global legislation. Currently, legislators around the world are implementing measures to mitigate the adverse impacts of climate change. The first binding global step took place at the United Nations (UN) Climate Change Conference near Paris, France, in 2015. Subsequently, 193 states signed the Paris Agreement, which sets out a global framework to limit global warming to below 2 °C and to pursue efforts to limit global warming to 1.5 °C.

The European Union (EU) is implementing its European Green Deal program launched in 2020, with the aim to become climate-neutral by 2050. The EU's »Fit for 55« climate and energy package is a key legislative effort, targeting an overall reduction of greenhouse gas (GHG) emissions by at least 55% by 2030, compared to 1990. Likewise, in 2020, China announced that it would scale up its NDCs by adopting more vigorous policies and measures, strive to peak CO_2 emissions before 2030, and achieve carbon neutrality before 2060. China is taking pragmatic actions toward these goals. Thus, Clariant continuously monitors and controls air emissions across all global sites to ensure regulatory compliance. In mid-August 2022, US President Joe Biden signed the Inflation Reduction Act (the »Act«) into law in what the White House terms the country's »most aggressive« attempt at tackling the climate crisis. The Act aims to reduce carbon emissions by at least 40% by 2030 and transform the US' climate- and environment-related policies, including by expanding clean and renewable energy production.

Customers demand low-carbon alternatives and renewable energy sources to help them meet their net-zero targets, while an increasing number of financial players are requesting investor-grade data for non-financial information. The US Inflation Reduction Act contains unprecedented measures and incentives in support of GHG emission reduction, clean energy, and clean mobility. Climate protection often goes hand in hand with energy savings that reduce costs, strengthen competitiveness, and trigger business opportunities. Pollution prevention also adds value to the company by minimizing the risk of harming human health and the environment, thus reducing potential liabilities and negative impacts on the company's brand image.

Clariant constantly optimizes its own operations with regard to carbon and greenhouse gas emissions and pays attention to climate issues along its entire value chain and the life cycle of its products. It offers numerous sustainable products, ranging from catalysts and low-carbon glucamides to second-generation bioethanol. By actively contributing to a carbon-neutral economy, the company also helps its customers to foster climate protection through innovative products and solutions.
Read more on Clariant's award-winning EARTH technology in the chapter → Catalysts
Read more in on our Sustainable leadership award for EnviCat® N_2O-S climate campaign in the chapter → Resource Efficiency and the Business Review chapter → Catalysts

Management approach

Climate change management is the responsibility of Group Innovation & Sustainability (GIS). Within GIS, the Sustainability Transformation team and the Corporate Environmental, Safety, and Health Affairs (ESHA) team manage the topic. GIS works closely together with the business units and with other departments such as Group Procurement Services to reduce Clariant's operations and supply chain impacts and to deliver low-carbon solutions. Climate is among the topics regularly reported to the Innovation & Sustainability Council and to the Innovation & Sustainability Committee. Success in achieving climate targets is also linked to incentives in the Management Bonus Plan. Read more on our bonus plan → here and → here

Group Operational Excellence (GOE) is responsible for ensuring that climate and environmental data is being managed in response to increasing demands from the investor community. → Read more on TCFD

Climate policies

Clariant prepares for a net-zero roadmap. It pursues ambitious environmental goals and uses its own standards and guidelines for sustainable operations. In 2021, the company introduced science-based climate targets approved by the Science-Based Targets initiative (SBTi). These targets mark a significant step forward in Clariant's sustainability transformation journey. → Read more in the chapter Resource Efficiency

In 2021, the company also started to implement a roadmap to achieve its defined climate targets by delivering emission reduction projects. It created strategy roadmaps for Scope 1, 2 and 3 emission reductions and defined milestones.

In 2022, the focus was on executing the roadmap. A core team continuously evaluates the pipeline of ideas and drives the emission reduction projects forward. It also analyzes quarterly the achievements in reducing Scope 3 emissions in view of the target.

Clariant coupled the roadmap with additional measures, for example, an internal carbon-pricing system to improve its carbon footprint.

Furthermore, Clariant's efforts at carbon emission reductions are strongly embedded in the company's long- and short-term incentive plans. Since 2022, Scope 1 & 2 emission reduction has been a Key Performance Indicator (KPI) in the long-term incentive plan for the top management population. The short-term incentive plan for the management population includes a target on the reduction of Scope 3 emissions as one of the top priorities. The Scope 3 reduction will be strengthened under the new short-term incentive plans applicable from 2023 by increasing the weighting for this KPI as well as rolling out this KPI to a broader population. From 2024, Scope 1 & 2 reduction targets will be embedded as a KPI in the short-term incentive plan for the majority of employees directly involved in the production processes.

Clariant continuously collects and analyzes data on energy consumption and greenhouse gas emissions in its business units. For example, it runs energy management initiatives like → eWATCH™ and the → Yield, Energy, Environment (YEE) initiative. The company also runs the Portfolio Value Program (PVP), which integrates sustainability into the product portfolio and innovation pipeline. To enable customers to make informed purchasing decisions on products supporting the protection of climate, the PVP identifies solutions with climate-related benefits, with the best-in-class ones receiving the EcoTain® label. → Read more about Resource Efficiency

Facing planet's challenges with EcoTain®-benchmarked products

EcoTain® is Clariant's sustainability label to highlight products with outstanding sustainability performance. Based on the PVP screening, EcoTain® products significantly exceed sustainability market standards, offer best-in-class performance, and overall contribute to sustainability efforts of Clariant and Clariant customers. → Read more on the Portfolio Value Program

EMISSIONS

	Continuing operations	Discontinued operations	**Total 2022**	Continuing operations 2021	2021 [1]	Continuing operations 2020	Total 2020
Total emissions (in m tCO_2e)	**0.64**	**n.a.**	**0.64**	**0.71**	**0.82**	**0.69**	**0.83**
in kg/t production	168	n.a.	168	164	185	178	205
Gross direct (Scope 1) GHG emissions (in m tCO_2e)	0.32	n.a.	0.32	0.37	0.40	0.36	0.39
Biogenic CO_2 emissions	0.02	n.a.	0.02	n.a.	n.a.	n.a.	n.a.
Direct emissions (Scope 1) in kg/t production	84	n.a.	84	85	90	94	96
Gross market-based energy indirect (Scope 2) GHG emissions (in m tCO_2e)	0.30	n.a.	0.30	0.34	0.42	0.31	0.41
Gross location-based energy indirect (Scope 2) GHG emissions (in m tCO_2e)	0.21 [2]	n.a.	0.21 [2]	n.a.	n.a.	n.a.	n.a.
Indirect emissions (Scope 2) in kg/t production	79	n.a.	79	79	95	79	108

[1] Every three years, Clariant validates environmental data from all production sites. The last full reporting campaign was in 2020, including estimated discontinued data for Business Unit Masterbatches for first half-year. In interim years, including 2021, the reduced reporting scope comprises the larger sites responsible for at least 95 % of production.

[2] The value does not include 0.03 m tCO_2e relating to PPAs.

Reduction of Scope 1, 2, and 3 emissions

Clariant's ambitious climate targets provide for absolute reductions of its Scope 1, 2, and 3 emissions. With 2019 as the base year, the company aims to reduce Scope 1 & 2 emissions by 40 % and Scope 3 emissions from purchased goods and services by 14 % by 2030. Clariant's Scope 3, Category 1, emission target collectively covers more than two-thirds of the total mandatory Scope 3 emissions in conformance with the GHG Protocol Corporate Value Chain (Scope 3) Accounting and Reporting Standard.

These targets are approved by the Science-Based Target initiative (SBTi). Clariant's Scope 1, 2, and 3 emissions are calculated following the GHG Protocol standard, 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 follows the financial approach. → See the bar chart with the current status of targets

Scope 1 & 2 emissions

Clariant's direct greenhouse gas emissions (Scope 1) result mostly from combustion processes. They are proportional to the amount of carbon in the combusted fuels. To calculate them, the company uses the standard emission factors of the primary fuels defined by the Greenhouse Gas Protocol.

Clariant's indirect emissions (Scope 2) are due to external energy purchases in the form of electricity and steam. They correlate to the type of production and the quantity produced. Scope 2 emissions are calculated using either specific emissions factors of local suppliers or country grid factors published according to the standards of the Greenhouse Gas Protocol.

NITROGEN OXIDES (NO_x), SULFUR OXIDES (SO_x), AND OTHER SIGNIFICANT AIR EMISSIONS

Significant air emissions in tons, for each of the following:	Continuing operations	Discontinued operations	**Total 2022**	2021 [1]	2020	2019	2018
Total inorganic emissions	**681**	**n.a.**	**681**	**995**	**915**	**839**	**847**
NO_x	464	n.a.	464	566	540	613	618
SO_x	179	n.a.	179	323	248	172	180
Hydrogen chloride HCl	10	n.a.	10	35	45	33	33
Ammonia NH_3	28	n.a.	28	71	82	21	16
Total organic emissions (VOCs)	**305**	**n.a.**	**305**	**374**	**413**	**543**	**439**
Particle emissions (fine particles) (in t)	311	n.a.	311	3 671	293	201	294
Particle emissions (fine particles) (in g/t production)	82	n.a.	82	834	71	47	68

[1] Every three years, Clariant validates environmental data from all production sites. The last full reporting campaign was in 2020, including estimated discontinued data for Business Unit Masterbatches for first half-year. In interim years, including 2021, the reduced reporting scope comprises the larger sites responsible for at least 95 % of production.

New tool for tracking energy consumption and greenhouse gas emissions

Clariant created the Sustainable Operations Cockpit (SOC) to enable monthly tracking of energy consumption and greenhouse gas emissions. It also provides for more granular reporting using individual conversion factors at the site and plant level. All conversion factors are centrally managed to ensure data security and accuracy.

The new tool was introduced in two sessions attended by almost 200 employees, mainly from operations. They learned about the dos and don'ts to avoid data entry errors. The easy-to-use tool also enables data analysis and benchmarking as a basis for improvement. The tool was successfully audited.

AWARD

Clariant & Technip Energies' EARTH® technology for energy-efficient H_2 production wins first place – twice

EARTH® technology receives the ICIS Innovation Award 2022 for Best Process Innovation and the Hydrocarbon Processing Award 2022 for Best Refining Technology. The recuperative steam methane reforming technology combines high performance with cost-effective CO_2 reduction for large-scale hydrogen production. EARTH® is a pioneering drop-in solution, which was successfully installed at a world-scale H_2 plant in Europe with an expected capacity increase of up to 20 % at reduced CO_2 emissions and fuel consumption.

For internal and ISO 50001 reporting purposes, Clariant's eWATCH™ team works closely with site energy managers to calculate site-specific conversion factors. They help benchmark the carbon intensity of different energy sources and utilities and the efficiency of individual utility plants. Against this background, the company identifies opportunities for operational improvement toward the theoretical limit. To reduce Scope 1 & 2 emissions, it focuses on efficiency projects, purchases green electricity, and uses alternative, low-carbon fuels. → Read more in Resource Efficiency

Since 2019, Clariant's direct and indirect emissions decreased by 10 %. The Scope 1 & 2 emissions per ton of product decreased by 5 %. In 2022, Scope 1 & 2 emissions decreased by 13 % year-on-year and the Scope 1 & 2 emissions per ton of product decreased by 1 %. Energy efficiency measures, including heat integration and sun/natural drying, the transition from coal to renewable fuels, and the increase in the share of green electricity contributed to the strong decrease. Long-term power purchase agreements (PPAs) have been established in Indonesia and in the US and contributed significantly to the GHG reduction. In addition, solar panels were installed at various locations. The slowdown in the production volume of the second half-year in 2022 also had an impact on the reduction.

Emissions of ozone-depleting substances (ODS), nitrogen oxides (NO_x), sulfur oxides (SO_x), and significant others

At the Group level, air pollutants tracked include volatile organic compounds (VOCs), sulfur oxides (SO_x), particulates, and nitrogen oxides (NO_x). NO_x emissions from process and combustion sources are included as a KPI for the Clariant's sustainability 2030 targets. The company no longer uses ozone-depleting substances. If relevant, it reports cooling agents under the category »greenhouse gases.«

Scope 3 emissions

Most greenhouse gas emissions at Clariant are »Scope 3« emissions. In the context of the Group climate strategy, Clariant aims to reduce these emissions and has approved science-based targets for purchased goods and services (Category 1): Clariant has committed to reduce Scope 3 (Category 1) emissions from 2019 to 2030 by 14 %. As a baseline, 2019 was chosen, as it was identified as representative pre-pandemic business year that allowed to determine a first full year of Scope 3 emissions. In 2020 and 2021, Clariant analyzed the carbon footprint of purchased raw materials. In 2022, the company focused on priority suppliers, created supplier engagement resources, collected supplier-specific emission factors, and developed reduction plans. Together with other members of the Together for Sustainability (TfS) initiative, Clariant formed a workstream focused on increasing transparency and enabling emission reductions in the value chain. → Read more about TfS

Through its membership in the Together for Sustainability initiative, it contributed to the development of a chemical industry guideline on product carbon footprints and corporate accounting for Scope 3 emissions. The guideline, announced by Together for Sustainability in September, harmonizes PCF calculation approaches across the industry and is applicable to the vast majority of chemical products. In the future, this will allow consumers and the wider market to directly compare and assess the climate impact of products. Clariant is also part of the World Business Council for Sustainable Development's SOS 1.5 Pathfinder Framework on the methodological guidance for the calculation of avoided emissions. The overall aim is a harmonized and state-of-the-art methodology.

In 2021, Clariant undertook several steps to replace conventional raw materials with low-carbon alternatives. This includes the development of ethylene oxide derivatives from renewable sources in the joint venture with → India Glycols

Clariant uses standard emission factors based on data from verified sources, such as LCA databases GaBi (Sphere), Ecoinvent, and others to calculate its Scope 3, Category 1, emissions. If available from suppliers, it also considers supplier-specific emission factors after going through an internal validation process. For calculating the total CO_2 equivalent emissions, Clariant is using emission data from a data basis that considers characterization factor GWP from IPCC AR5 and expects its suppliers to provide emission factors following the same calculation method. CO_2 equivalent data therefore considers CO_2, CH_4, N_2O, HFCs, PFCs, SF_6 and NF_3. This monitoring allows the company to generate transparency, identify hotspots and reduction opportunities in its value chain, influence suppliers, and induce innovation.

Between 2021 and 2022, Clariant's Scope 3 emissions from continuing business decreased by 4%, reflecting the several initiatives implemented, especially on purchased goods and services. Compared to 2019, in 2022 Scope 3 emissions from continuing business decreased by 7%, while purchased goods and services emissions decreased by 5%. Clariant measures the emission intensity by total reported Scope 3 CO_2 equivalent emissions in relation to the group wide total sales in CHF. The emission intensity of Clariant 2022 continuing business decreased by 19% compared to 2021. Compared to 2019, the Scope 3 emission intensity decreased by 21%. This reflects the improvement projects executed during the year. These projects included the purchase of raw materials with lower product carbon footprint as well as increasing the quality and transparency of emission factors of Clariant's purchased goods and services. Projects are executed in all business segments, in alignment with the business strategies. In total, the activities summed up to a significant portion of the overall reduction in Scope 3, Category 1 emissions compared to the 2021 baseline. Simultaneously, there have been contrary effects, e.g., clarity on emission factors, resulting in higher values. Supplier engagement to support emission reduction remains a key priority for the next few years, as the chapter → Working together for a better footprint describes. Transparency and availability of validated and credible supplier specific emission factors of the raw materials purchased gain importance in order to make informed decisions and to execute the strategic roadmap. → Read more about TfS

INDIRECT (SCOPE 3) GHG EMISSIONS [1]

	Continuing operations	Discontinued operations	**Total 2022**	2021 continuing operations	2021 [2]	2020 continuing operations	Total 2020
Gross indirect (Scope 3) GHG emissions (in m t CO_2e)	**3.47**	**n.a.**	**3.47**	**3.61**	**4.31 [3]**	**3.34**	**4.20**
Gross indirect (Scope 3) GHG emissions (in kg CO_2e/CHF sales)	**0.67**	**n.a.**	**0.67**	**0.83**	**0.82**	**0.87**	**0.81**
Purchased goods and services	2.58	n.a.	2.58	2.70	3.19 [3]	2.46	3.12
Fuel- and energy-related activities (not included in Scope 1 or Scope 2)	0.18	n.a.	0.18	0.16	0.32	0.13	0.27
Upstream transportation and distribution	0.14	n.a.	0.14	0.11	0.12	0.11	0.12
Downstream transportation and distribution	0.13	n.a.	0.13	0.14	0.15 [3]	0.12	0.12
End-of-life treatment of sold products	0.44	n.a.	0.44	0.50	0.52	0.52	0.56

[1] Scope 3 emissions are calculated following the GHG Protocol standard
[2] The Scope 3 data does not include all related Süd-Chemie India Pvt. Ltd. emissions.
[3] All figures are rounded, resulting in discrepancies between the total emissions and the breakdown figures.

Due to SBTi and GHG protocol requirements, biogenic CO_2 uptake emissions have been separately identified for purchased good and services and are therefore not included in this category. Clariant is in the process of collecting information on biogenic carbon to be able to disclose the biogenic carbon emissions in the future.

In 2022, the company has introduced its automated product carbon footprint calculator »CliMate.« »CliMate« allows to calculate the product carbon footprint (PCF) of the portfolio, based on standardized production recipes. »CliMate« has been developed together with Mibcon. The automated carbon footprint calculator »CliMate« enables Clariant to offer consistent cradle-to-gate greenhouse gas (GHG) emission data for hundreds of finished products and solutions from across its whole portfolio, in line with the ISO 14067 norm. The powerful new tool is based on leading standards for PCF calculations and is set to be in line with the Together4Sustainability guideline on calculating product carbon footprints. »CliMate« has also been validated by the independent organization TÜV Rheinland. Clariant's internal team of experts used existing GHG tracking system information and combined it with its product recipes to develop this bespoke solution with support from industry specialists. »CliMate« will enable Clariant to showcase, in a consistent way, PCF improvements over time as it

continues to achieve ongoing reductions in emissions within its own operations and from purchased goods and services. The information provided by the calculations will also be used by Clariant to uncover improvement opportunities within its supply chains. Clariant's current PCF portfolio coverage will expand to ever-wider application areas as supporting information becomes increasingly available from suppliers through the company's supplier engagement program. Clariant continues to engage with its raw material suppliers so that they might share their carbon footprint data and demonstrate the greenhouse gas emission reductions Clariant expects from its strategic suppliers.

Educational webinars introduce »CliMate« tool to internal audiences

The new automated product carbon footprint calculator »CliMate« enables Clariant to offer consistent cradle-to-gate greenhouse gas (GHG) emission data for hundreds of finished products and solutions from across its whole portfolio.

In two webinars, the company introduced the tool, e.g., to the sales and procurement teams, product development, or the support teams. In the 45-minutes sessions, addressing about 140 employees each, participants learned about climate change, its context to Clariant portfolio, as well as the capabilities of the tool and how it can be used.

In a second webinar, Clariant employees learned more about the complexity of performing product carbon footprints and the value the tool has for customers, including providing reliable carbon footprint data using state of the art calculation approach validated by → TüV Rheinland, which can be used as basis calculating the specific carbon footprint of Clariant products. The webinar also highlighted how the PCF Clariant is providing its customers with, is influencing their Scope 3 emissions.

All training sessions were recorded for the internal learning platform and made available to employees for self-learning.

→ Read more on the Clariant website

To provide extensive reporting for the Dow Jones Sustainability Index (DJSI) and the Carbon Disclosure Project (CDP), Clariant voluntarily reports on its Scope 3 emissions. It focuses on the categories deemed most relevant for its business: the greenhouse gas emissions from purchased raw materials, 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. These categories cover almost 70 % of all Scope 3 emissions.

Task Force on Climate-Related Financial Disclosures

The framework developed by the Task Force on Climate-Related Financial Disclosures (TCFD) provides a systematic framework to manage and report on the risks, opportunities, mitigations, and governance resulting from the impacts of the climate crisis. The TCFD recommends four core elements: governance, strategy, risk management, and metrics and targets. Clariant recognizes that climate change has an impact on its operations and markets, and vice versa. Since the beginning of 2021, the company has been a supporter of TCFD and in 2022 deepened the analysis of its climate-related risks and opportunities, assisted by an external consultant. Using specific risk analysis software from the reinsurance provider MunichRe and IPCC World Atlas data, Clariant developed a comprehensive and detailed outlook of the exposure toward various physical risks and opportunities in the value chains it operates in.-

Clariant's approach for its second TCFD reporting year was led by the Sustainability Transformation team, and developed together with the business units and departments such as Enterprise Risk Management, Communications, Operations, Environmental Safety and Health Affairs (ESHA), and Procurement. Risk and opportunity assessment workshops were complemented by a gap analysis and an alignment of governance and reporting.

In the coming years, Clariant envisions a deep dive even further into the risks and opportunities assessment, including their financial quantification, and a more detailed development of climate strategies.

1. Governance

1. a. Describe the Board's oversight of climate-related risks and opportunities

Within Clariant's purpose, sustainability and innovation are key pillars of the success of the company. Sustainability transformation of the company is, on the one hand, transforming its operations toward climate neutrality and overall sustainability, and on the other hand, developing sustainable products which in return support Clariant's customers in their sustainability transformation, helping them to achieve their sustainability targets. With sustainability, one of the key drivers to steer the company's strategy and portfolio, the Board of Directors ultimately monitors the company's opportunity and risk management performance – including environmental opportunities and risks. It advises the Clariant Executive Leadership Team (ELT) in quarterly Innovation and Sustainability Committees (ISC) as well as during the annual performance cycle. Subject of discussion are sustainability-related policies, reporting obligations, and strategies, with a focus on portfolio implications in Environmental, Social, and Governance (ESG) areas. The agenda of the ISC relates to Clariant's 1+5 sustainability focus areas, including climate-related topics. It also monitors the progress on sustainability KPIs, including Scope 1, 2, and 3 emission reductions and the corresponding roadmaps. It is chaired by a designated member of the Board and is composed of four members of the Board, including the Chairman of the Board as well as the CEO and Chief Technology & Sustainability Officer (CTSO) *ex officio*.

In addition, the Chief Sustainability & Technology Officer oversees and manages climate risks and opportunities across the company and is part of the Executive Leadership Team.

1. b. Describe Management's role in assessing and managing climate-related risks and opportunities

Clariant is committed to reducing its footprint and helping customers and downstream users improve their sustainability performance, as well as to procuring sustainably manufactured raw materials. The governance structure reflects Clariant's responsibility for a sustainable future: at the beginning of 2021, Clariant changed its organizational structure to improve the integration of sustainability and innovation. The Group Innovation & Sustainability (GIS) unit and the Innovation & Sustainability Committee and Council set sustainability and climate targets as well all strategies, while also ensuring their execution. The highest governance level for climate-related risks and opportunities is the Board of Directors' Innovation & Sustainability Committee (see previous paragraph). The Innovation & Sustainability Council ensures that climate-related aspects are considered in the company's strategy and operations. The Council meets quarterly and reports relevant climate-related outcomes, including risks and opportunities, to the Board of Directors' Innovation & Sustainability Committee. It is chaired by the Chief Technology & Sustainability Officer and includes the CEO, the Chair of the Innovation & Sustainability Committee, the Head of Sustainability Transformation, the innovation heads of the business units, and the head of the GIS Program Management Office as permanent members.

The Head of Sustainability Transformation reports directly to the CTSO, and his or her responsibility covers climate-related topics, sustainability-driven innovation excellence (iGarage), as well as sustainability reporting, including the engagement with ESG rating agencies. Clariant has committed itself to SBTi targets for Scope 1, 2 and 3 (Category 1) to achieve emission reductions (Scope 1 & 2: 40 % and Scope 3, Category 1: 14 %) by 2030. The implementation and execution of the defined roadmaps to achieve the targets and to manage risks and opportunities is within the responsibility of the different businesses and functions.

At an operational level, the Corporate Sustainability Transformation team manages and coordinates two core teams, which steer the Scope 1, 2, and 3 purchased goods and services emissions. These teams include business unit representatives and relevant functions. Their mission is to support the development of concrete roadmaps for progressing in Clariant's climate targets, and to identify investment needs, risks, and mitigation activities.

The teams periodically report progress as well as risks and proposed mitigations to the Innovation & Sustainability Council and Committee for guidance. Risk mitigation proposals are reported by the teams to the Executive Leadership Team for approval.

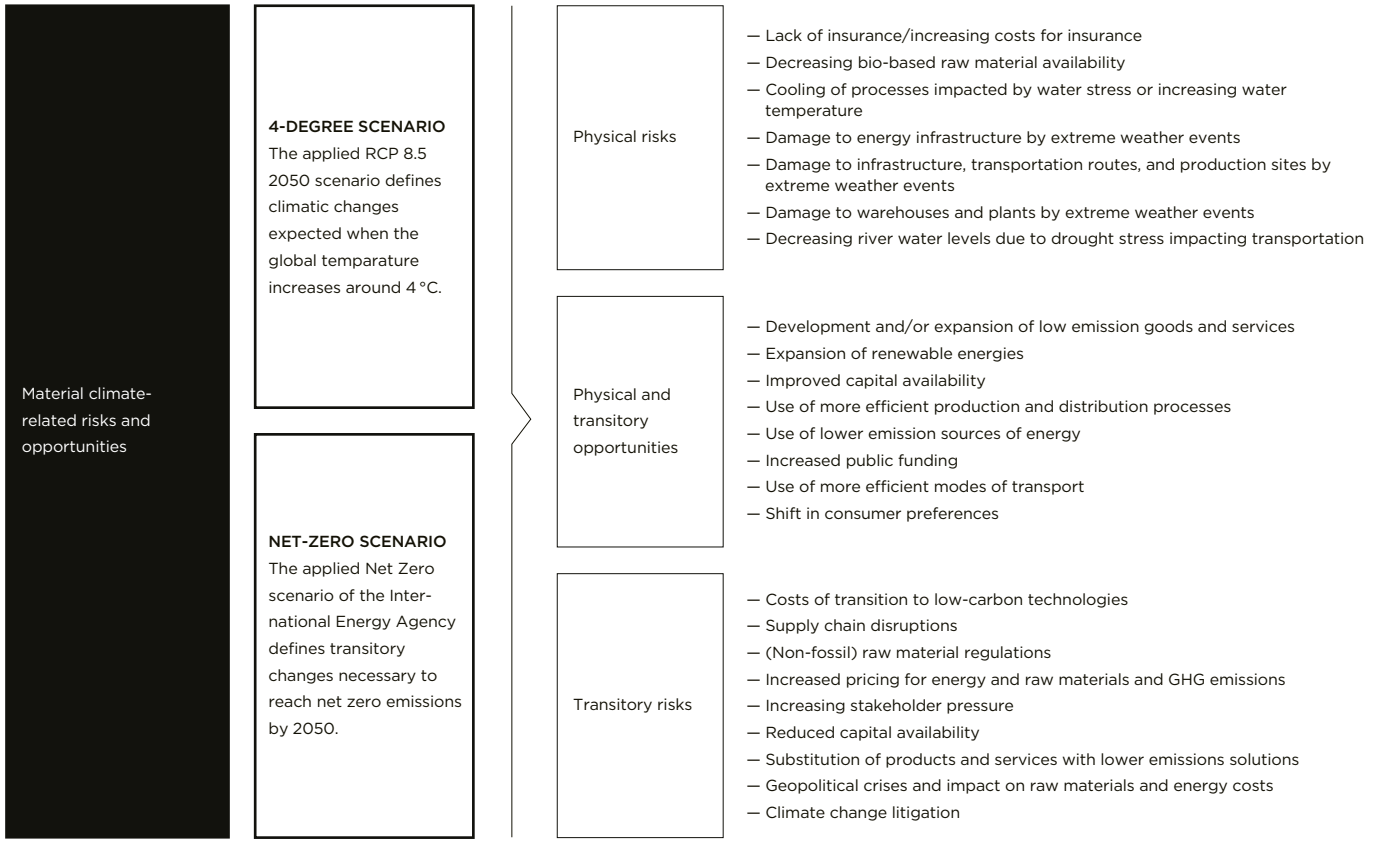
Climate target achievement on Scope 1, 2 and 3 is additionally incentivized by → short- and long-term bonus schemes

2. Strategy

2. a. Describe the climate-related risks and opportunities the organization has identified over the short, medium, and long term

Clariant categorizes climate-related, business-relevant risks and opportunities into physical risks, transitory risks, and physical and transitory opportunities. Physical risks comprise events such as extreme weather, storms, and heavy precipitation but also chronic changes in climatic conditions, such as temperature changes or sea level rise. Transition risks, which arise in connection with the transition to a lower carbon economy, emerge in policy and legal,

019 **MATERIAL RISKS AND OPPORTUNITIES**



technology, market, and reputational risks. Examples are changing political frameworks, technological developments, and changing market expectations. But both physical and transitory risks also bring along opportunities with climate mitigation solutions as a focus area for Clariant. They arise in the areas of resource efficiency, energy sources, products and services, markets, and resilience. More information on Clariant's risks and opportunities, including counter initiatives, can be found in → Figure 019

Most material risks and opportunities

a. Physical risks:

a. 1. Limited insurance capacity / increasing costs for insurance

— Major risk: The increasing frequency and severity of natural catastrophes combined with an accumulation of risks at certain location has led insurance companies to carry significant losses. The financial ability of insurance companies to cover such scenarios can be expected to come to a limit. As a consequence, steep increases in insurance premiums can be expected, as well as the inability to transfer such risks.
— Main initiatives: Risk mitigation measures such as flood defense improvement, business continuity planning, etc. will consequently need to be gradually enhanced where risk transfer mechanisms are no longer available.

a. 2. Process constraints associated with water stress or increasing water temperature

— Major risk: Many manufacturing processes require cooling with river water. Low water levels or river water temperature increase can lead to the interruption of production and loss of business.
— Main initiatives: Clariant has been conducting comprehensive water stress assessments since 2017. Risk mitigations include water efficiency improvements as well as enhanced cooling technologies and energy recovery projects.

b. Transitory risks:

b. 1. Increased prices for energy and raw materials

— Major risk: Geopolitical crises, carbon pricing, and energy shortages would lead to higher operational expenditures and high fossil fuel price dependency.
— Main initiatives: Clariant is actively diversifying its supplier landscape and increasing the share of renewable energies to become more independent of fossil fuels. In its strategies for raw materials, Procurement also relies on multi-sourcing to achieve optimum purchase prices through competition. Digital market analysis as well as regular strategy meetings to assess the raw materials situation are established. Additionally, replacing fossil-based raw materials through low-carbon alternatives reduces dependency of fossil-based price driver.

b. 2. Costs of transition to low-carbon technologies and products

— Main risk: High expenditures required for development of sustainable products, reliable energy supply, and sustainable raw materials, which can impact the company's overall profitability.
— Main initiative: Investments in sustainable long-term green electricity Power Purchase Agreements increase supply security and optimized expenditures. Another approach of Clariant is to increase efficiency by leveraging → cross-industry collaborations and thereby simultaneously increasing the scope and chances for success of innovative and sustainable solutions. Clariant is actively participating in industry forums like the Low-Carbon Emitting Technology Initiative of the World Economic Forum (WEF) to find further cross-industry collaborations.

c. Opportunities:

— *c. 1. Development and expansion of products with low product carbon footprint (PCF).* An increased need for products with low PCF by customers can be expected. Clariant has developed an automated product carbon footprint calculator (CliMate) which allows to provide the relevant information to the customers. Combined with Clariant's commitment to achieve its Scope 1, 2 and 3 targets, it positions Clariant to offer products with improved PCF along with the required data transparency.
— *c. 2. Use of more efficient production and processes:* A significant share of Clariant's sales, particularly in the adsorbents and catalysts portfolio, is based on products that contribute to the reduction of carbon emissions. The demand in emission reduction and energy efficiency is expected to increase, strengthening the company's competitive position on the market.

2. b. Describe the impact of climate-related risks and opportunities on the organization's businesses, strategy, and financial planning

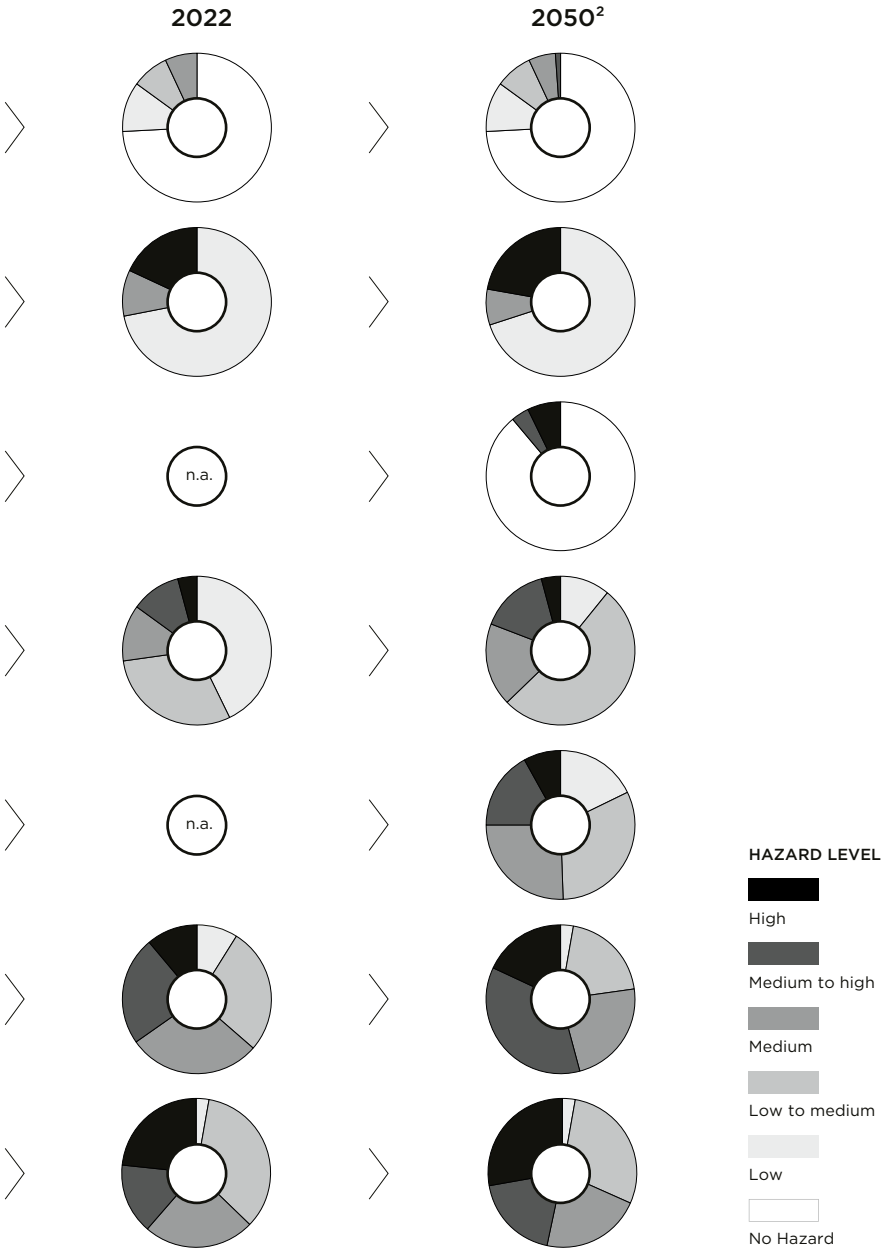
Climate-related risks and opportunities have influenced Clariant's strategy and financial planning in several areas, among which:

— Products and services: Clariant's carbon footprint is mostly coming from its Scope 3 emissions (>84 % in 2022), so the company's strategy is not only focused on its own operations, but also covers the value chain. Considering that more than 80 % of the environmental impacts of a product is determined at the design stage. Clariant carries out a comprehensive life cycle-based sustainability assessment of its products during the development phase using Clariant's Portfolio Value Program (PVP), including an assessment of the impact of the product on climate change across the life cycle of the product. This allows to identify those products that have a particularly beneficial impact on GHG emissions compared to the industry standards or the most recent product generation;

— Supply chain: More than 62% of Clariant's 2022 carbon footprint is derived from purchased raw materials. In the future, an increasing share of renewable raw materials will replace fossil-based resources, potentially leading to a reduced product carbon footprint. Starting in 2019 a dedicated workstream was put in place to develop a roadmap to reduce Clariant's Scope 3 emissions. It started with a deep-dive analysis with a group of internal experts to evaluate the main emission sources, followed by the collection of potential ideas for emission reduction. These ideas were prioritized in terms of technical approval needs, influenceability by Clariant, and potential cost impacts. A systematic approach to engaging with value chain partners is ongoing, with several webinars and questionnaires being sent out for collection of emission factors and emission reduction plans;
— Investment in R&D: Clariant's climate strategy also aims to boost and incentivize low-carbon innovations, such as the sunliquid® technology and Carbon2Chem® (aimed at using emissions from steel production as raw material for chemicals);
— Operations: At an operational level, Clariant's Scope 1 & 2 together represent approximately 16% of the company's carbon footprint. Although they are lower than the Scope 3, the influence for emission reduction activities is higher. Clariant aims to reduce the absolute Scope 1 & 2 emissions by –40% until 2030 (base year: 2019). In addition, in 2021, Clariant has introduced an internal carbon price for major capital expenditures to factor into decision-making, ensuring resource allocation toward low-carbon technologies and product offerings, while mitigating the risk of increasingly costly regulations.

Clariant's corporate carbon intensity (as measured in tons CO_2e per mCHF sales) is relatively low compared to the company's peers. With the main initiatives mentioned above and further quantitative assessments, Clariant can react to both risks and opportunities in different scenarios and is well set up to overcome the climate challenges ahead.

020 **CLIMATE PORTFOLIO ASSESSMENT**[1]



[1] Figures refer to the share of locations taken into account
[2] 4-Degree Scenario (IPCC, RCP 8.5)

2. c. Describe the resilience of the organization's strategy, taking into consideration different climate-related scenarios, including a 2 °C or lower scenario

Clariant has conducted a qualitative assessment of its climate-related risks and opportunities using different climate-scenarios. For physical risks and opportunities, scenarios from the Intergovernmental Panel on Climate Change (IPCC) 5th Assessment Report were used, called RCP scenarios. The Representative Concentration Pathways (RCP) apply different greenhouse gas concentration and radiation, which can be translated into various global temperature increases:

— RCP 2.6: Well-below-2-degree scenario
— RCP 4.5: 2.5-degree scenario
— RCP 8.5: 4-degree scenario

The scenarios take into consideration different short- to long-term time horizons between 2030 and 2100. For transitory risks and opportunities, the Net Zero Emission scenario (NZE) of the International Energy Agency (IEA) has been applied. It shows a pathway to achieve net zero CO_2 emissions by 2050, mainly driven by energy, innovation, and technological changes. It is therefore consistent with limiting global temperature increase in line with the Paris Agreement and allows Clariant to make scenario-based assumptions about the impacts and risks and opportunities associated with the transition to net zero CO_2 emissions by 2050.

In 2022, workshops were carried out to review all relevant TCFD recommended risks and opportunities, including specific impacts for Clariant, potential financial impacts, the likelihood and size of impact to determine materiality, and the identification of main initiatives that address the identified material risks and opportunities. For the workshop, Clariant focused on two climate scenarios to be prepared for, either transitory risks and opportunities (NZE scenario) or a more extreme scenario (RCP 8.5 as 4-degree-scenario) where physical risks materialize the strongest. The result of the analysis, i.e., Clariant's material risks and opportunities, is described in the climate-related risks and climate-related opportunities tables. In 2023, this analysis will be further developed to include quantitative assessments.

3. Risk management

3. a. Describe the organization's processes for identifying and assessing climate-related risks

Identifying and assessing climate-related risks and opportunities at Clariant is performed by a TCFD project team, led by the Sustainability Transformation team and complemented by experts from Enterprise Risk Management, Communications, Operations, Environmental Safety and Health Affairs (ESHA), and Procurement. In 2022, the TCFD-specific project team involved an external consultant to take the next step in risk and opportunity assessment and conducted a workshop to identify relevant climate-related risks and opportunities. This enhanced risk and opportunity (R&O) assessment comprises a physical risk analysis of the company's sites (see → Figure 020), sales, and sourcing regions. The risk analysis of Clariant sites was prepared using the »Climate Change Edition« of the »Location Risk Intelligence« software from reinsurer Munich Re. It is based on the RCP scenarios for atmospheric greenhouse gas concentrations from the latest IPCC Assessment Report (IPCC AR5, 2014). In up to three climate scenarios (RCP 2.6, RCP 4.5, and RCP 8.5) and time horizons (2030, 2050, 2100), the tool analyses site-specific hazard exposure for various acute and chronical hazards, such as sea level rise and wildfires.

For the risk analysis of Clariant's sales and sourcing regions, regional information from the IPCC's Interactive World Atlas was used to identify physical hazards. This allows to identify which sales and sourcing regions are in danger and could impact the company's supply chain reliability. For both sales and sourcing regions, the analysis identified mean temperature changes, maximum temperature increase, and heavy precipitation as the main risks.

3. b. Describe the organization's processes for managing climate-related risks

In Clariant's risk assessment process, the risk analysis was enhanced by an impact assessment where risk consequences were classified in terms of financial impact. Based on the estimated financial impact, Clariant qualitatively assessed the materiality of identified climate-related risks and opportunities. The TCFD analysis in 2023 will include financial exposure estimates in alignment with the company's risk assessment process.

3. c. Describe how processes for identifying, assessing, and managing climate-related risks are integrated into the organization's overall risk management

The responsible entity for Clariant's ERM and risk assessment process has been continuously involved in the climate-risk and opportunity assessment to ensure that concepts and processes are aligned where possible. For example, a financial impact classification similar to the ERM process has been applied. Clariant will assess how to integrate the continuous management of climate change-related risks and opportunities in future.

4. Metrics and targets

4. a. Disclose the metrics used by the organization to assess climate-related risks and opportunities in line with its strategy and risk management process

Clariant's climate-related metrics and targets are available in the chapter »Environmental protection and resource efficiency« as well as in »Climate protection« in the → CDP Questionnaire, and on the → company's website.

4. b. Disclose Scope 1, Scope 2, and, if appropriate, Scope 3 greenhouse gas (GHG) emissions, and the related risks

Scope 1 & 2 emissions are calculated monthly with the »Sustainable Operations Cockpit« (SOC). Scope 3 emissions are monthly updated in the Scope 3 dashboard for purchased goods.

4. c. Describe the targets used by the organization to manage climate-related risks and opportunities and performance against targets

Since the 2021 financial year, Clariant's emission reductions have been part of short-term and long-term incentive remuneration. Scope 1 & 2 emission targets are part of the CLIP (Clariant Long-Term Incentive Plan) for members of the Executive Committee and Global Management. Scope 3 emission targets are part of the Management Level employees' incentive plan. To reduce climate-related risks in the future, Clariant introduced a carbon pricing scheme for all major capital expenditures that applies a monetary value on greenhouse gas emissions. → Read more in Sustainability Targets

CIRCULAR ECONOMY

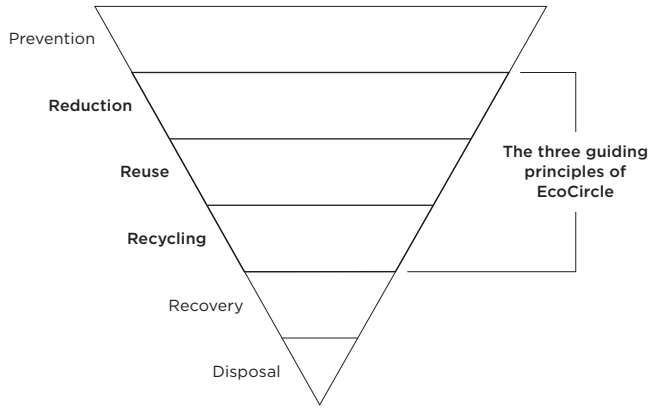
In a circular economy, reduced materials used for renewable, durable, and reparable products and solutions based on recycled input materials that are employed as long as possible are provided. At the end of their sustainable life, the input materials are fully recovered or recycled, which reduces their ecological impact. The circular economy is the necessary alternative to the current linear economic model and stems from increasing awareness of planetary resource limits. It is driven by sustainability ambitions and policy objectives linked to climate change, environmental protection, and the sustainable use of finite resources.

Management approach

Group Innovation & Sustainability (GIS) provides the framework and supports the business units in their circular economy efforts and has established resource efficiency and sustainable production targets for 2030. They are reported under the topic → Environmental Protection and Resources

All business units and several company functions, among them Sustainability Transformation, evaluate the opportunities offered by an increasingly circular economy.

021 **WASTE HIERARCHY PRINCIPLES**



Clariant reviews risks and opportunities associated with the circular economy as part of its corporate strategy management process. This structured approach further outlines, anchors, and advances the topic within Clariant's business units. The company has embedded circularity in its update of the Portfolio Value Program 2.0, incorporating circularity from raw material usage to production and finally to anticipating the impact to end of life. Thus, Clariant's product innovation supports recycling and products that do not hinder recycling. Additionally, Clariant uses raw materials which are based on recycling, such as waste materials from agricultural processes or recycled materials (e.g., ethylene derived from recycled plastic/rubber or metals).

With Clariant products mainly used in further production steps, the end of life of the final application is not always easy to assess.

Circularity is increasingly becoming a subject of upcoming regulation. One example, which will impact the complete value chain, is the Ecodesign for Sustainable Product Regulation (ESPR or Sustainable Product Initiative), which will reshape amongst others the requirements on circularity criteria. Additionally, the Revision of the Packaging and Packaging Waste Directive (PPWD) will have an impact on recyclability definitions and recycling rates. This offers opportunities for new products, but will also require an evaluation of the impact, for instance, on plastic packaging used for the transportation of chemicals. Clariant is also closely monitoring the evolution of waste management policies in major economies like the US and China, including important aspects such as recycling strategies, the role of chemical recycling, or product specific regulations.

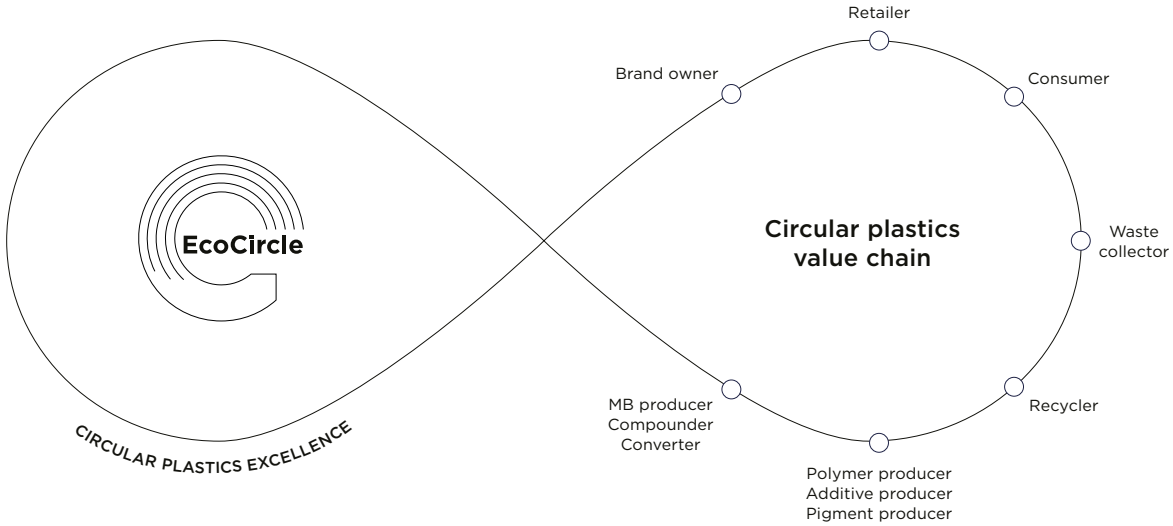
Circular Economy is increasingly in the focus of all the value chain players, especially of customers and end-users, as brand owners and OEMs strive for circularity. Clariant is actively collaborating in the EU Commission-driven Circular Plastics Alliance (CPA), in several industry collaborations such as the Alliance to End Plastic Waste (AEPW), and the Polyolefine Circular Economy Platform (PCEP) as well as in industry projects such as → REVOLUTION and → STEP

Clariant's contributions to a circular economy

Clariant contributes to a circular economy by:

- offering a continuously expanding product portfolio that enables a circular economy
- exploring promising options, partnerships, and areas for growth and innovation
- increasing the eco-efficiency of its production processes
- choosing waste and renewable resources instead of virgin or fossil resources, where suitable
- redesigning processes
- reducing water and energy use
- practicing closed-loop recycling at its sites

022 **ECOCIRCLE - BEYOND A PRODUCT FOCUS, COLLABORATING ALONG THE VALUE CHAIN**



In its 2021 Strategic Management Process, Clariant defined Circular Solutions as one of its four Innovation Areas. The circular economy goes beyond the company's own operations, affecting its complete value chain. This approach also includes analyzing the full life cycle of products and business models. Ongoing circulation of materials and products benefits business and the environment. A circular economy has the potential to create additional business opportunities and product or service developments. → Read more in Business Growth and Profitability

Since 2019, Clariant has focused on the circular plastics economy in its company-wide EcoCircle initiative. It is driven by the »Sustainability Transformation« organizational unit and extends to the company's entire value chain, individual projects being led by the business units. At dedicated sites, in 2022, Clariant further intensified its efforts to develop specialty products for a circular plastics economy.

→ Read more about EcoCircle
→ Read more on the Design4Circularity project

Clariant is particularly committed to preventing the release of plastic waste in oceans, rivers, and other natural systems. The company offers solutions for mechanical recycling, dissolution and depolymerization processes, and chemical recycling. Its wide range of innovative stabilizers and compatibilizers supports obtaining higher-value plastics from recycling streams, while other products make materials more durable or improve existing and novel recycling processes.

Clariant is convinced that moving toward a more sustainable plastics sector is critical to the industry's success. However, a fully circular plastics chain requires reliable collection systems around the globe, improved sorting, increased rates of recycling, and enhanced quality of recyclates. Different stakeholder needs, consumer behaviors, and expectations must be aligned. Existing production processes and chemical compositions need to be adapted to circularity needs.

EcoCircle is well recognized and provides solutions along three guiding principles: reducing, reusing, and recycling plastic. The initiative is considered a best-practice example in the industry and includes presentations, customer workshops, and publications such as the Global Goals Yearbook. Clariant's commitment to plastics recycling along its value chain and advocacy for EcoCircle also resulted in outside recognition: The company earned the 2020 China GoldenBee Corporate Social Responsibility (CSR) award, presented by China Sustainability Tribune and GoldenBee, a pioneer network of CSR and sustainable development in China.

Clariant addresses customers' unmet needs

With more awareness of resource limitation, support for the circular economy as a necessary alternative to the current linear economic model is increasing. Clariant's Business Unit Industrial & Consumer Specialties (since January 2023: Care Chemicals) develops particular circular economy products. To foster the momentum of the circular economy, Clariant launched Safewing®, the deicing and anti-icing fluids that have a superior environmental profile thanks to their fully biodegradable additive packages and low surfactant content. In addition, Clariant developed a special on-site recycling program so that up to 70 % of the glycol can be reused in the production of deicing fluids. Due to its global presence, Clariant has the logistic capability to provide regional airports with very short lead times.

In 2022, Clariant also launched an innovative portfolio of flexible, custom solutions for the emerging market of chemical plastics recycling. Not only does this help to reduce the environmental burden created by plastic waste that would otherwise be incinerated or landfilled, but it also provides for the sustainable production of valuable chemicals. The new products are designed for the purification of pyrolysis oil made from hard-to-recycle mixed plastic waste. Producers benefit from highly efficient impurity removal to achieve pyrolysis oil that is compatible with ethylene plants.

Read more on the → innovative HDMax catalysts and Clarit™ adsorbents

AWARD

Clariant part of awarded cross-industry initiative for recyclable cosmetics packaging

Design4Circularity wins 2022 → SUSTAINABLE PACKAGING AWARD

With the award-winning project »Design4Circularity,« Clariant helped move circular plastic packaging forward. In a first and unique collaboration for the Personal Care industry, Clariant, Siegwerk, Borealis, and Beiersdorf combined expertise to tackle the challenge of creating recyclable consumer packaging, based on 100 % retrieved plastic packaging waste, for cosmetics applications. The pioneering initiative provided innovations and insights for the different design aspects to encourage others to also follow design-for-circularity principles. The cross-industry collaboration is targeting the achievement of truly circular packaging by incorporating full life cycle thinking in each development step, to create a new standard for the industry. Circular packaging supports reduced plastic waste, less use of new/virgin plastic material, and reduced climate impact. In November, »Design4Circularity« received the Sustainable Packaging Award.

Clariant brought expertise to the project by designing and developing a high-performing additives package, »Addworks,« additive solutions to protect polyolefin post-consumer recyclate (PCR) quality and prevent polymer chains from breakdown at each mechanical recycling step. This delivered high-value recycling material which repeatedly hit the high-end criteria of Personal Care-related consumer packaging. This innovation, in combination with the proper source of recyclate material, allowed the increase in PCR content in cosmetic bottles to 100 %.

Projects and initiatives with external partners

Clariant is engaged in various projects and activities that promote a more resource-efficient and sustainable circular society. The company supports policymakers' targets and customers' sustainability ambitions by collaborating with industry partners across the value chain. For example, → InReP – An Integrated approach towards Recycling of Plastics (ispt.eu), is a joint project of science and industry with 36 partners from the value chain, where Clariant is participating in the field of chemical recycling. Clariant is also involved in the EU project → REVOLUTION. In that context, the Business Unit Additives (since January 2023: Adsorbents & Additives) contributes to the value chain consortium to increase the efficiency and the range of electric vehicles by utilizing advanced materials and more efficient production processes (including artificial intelligence). The project targets the entire life cycle of products, including their design, and promotes circular economy processes, such as an increased content of recycled material, in various automotive use cases. Clariant is also engaged in the cluster Process4Sustainability and the Renewable Carbon Initiative.

→ Read more on the Renewable Carbon Initiative

Process4Sustainability – Joining forces for industries' transformation toward climate neutrality

One project Clariant is involved in is Process4Sustainability at Industriepark Hoechst, Germany. This cluster, of which Clariant is a founding member, fosters circularity to achieve carbon neutrality and is funded by the Hessian state government and the European Regional Development Fund. It is a network of companies in the process industry, of research institutions, and social innovation partnerships. The cluster's goal is to proactively shape the transformation process to carbon neutrality. It offers companies practical knowledge adapted to their individual needs about the levers of carbon neutrality, new markets, and innovative business models:

It measures the regional carbon footprint and identifies levers for climate neutrality for the long-term reduction of carbon emissions, designing paths to more resource-efficient production and to switching to alternative energy and raw material sources.

It identifies technical solutions through technology assessments and concrete demonstration projects in the fields of green steam, recycling, and wastewater technologies.

It addresses new business models for circular economy as well as possible public-private partnership models through international expert workshops.

It fosters networking activities and creates a platform that promotes cooperation between different actors (industry, research, NGOs, start-ups, politics, society) on the topic of sustainability and climate-neutral technologies; it establishes innovation partnerships and connects solution providers.

It increases innovative capacity and competitiveness through joint project development and public funding, e.g., by reviewing public tenders and giving support in the application process.

It assumes the public representation of interests and the external communication on climate-neutrality issues in the process industry.

→ Read more on Process4Sustainability

MATERIALS USED BY WEIGHT OR VOLUME

in m t	Continuing operations	Discontinued operations	**Total 2022**	2021 [2]	2020 [1]	2019	2018
Total weight or volume of materials that are used to produce the organization's primary products and services during the reporting period	4.08 [3]	n.a.	4.08 [3]	4.90	4.10	4.50	4.60
Total production	3.80	n.a.	3.80	4.43	4.10	4.25	4.34

[1] Figure restated

[2] Every three years, Clariant validates environmental data from all production sites. The last full reporting campaign was in 2020, including estimated discontinued data for Business Unit Masterbatches for the first half-year. In interim years, including 2021, the reduced reporting scope comprises the larger sites responsible for at least 95 % of production.

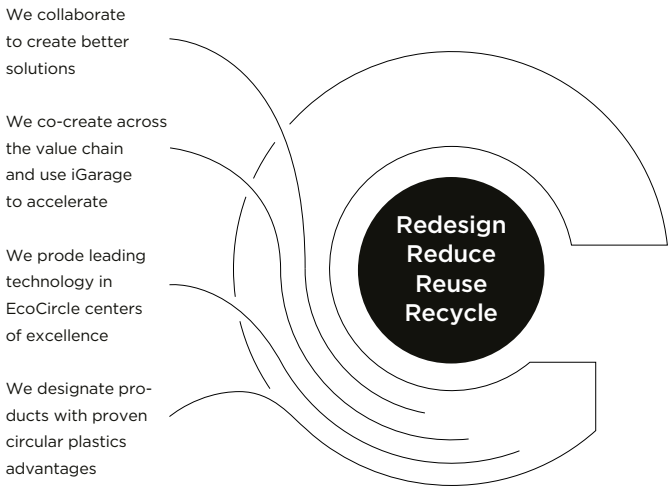
[3] In 2022, less than 5% of materials used were made of renewable raw materials.

Clariant helps promote the use of renewable raw materials

In 2022, Clariant joined the Renewable Carbon Initiative (RCI). RCI aims to speed up the transition from fossil carbon to renewable carbon for all organic chemicals and materials. Joining the RCI shows Clariant's commitment to driving forward innovative sustainability practices. The membership in the RCI allows Clariant to expand on its own solutions in the field of renewable carbon as well as collaborate more closely with partners, suppliers, and the industry at large in driving this matter forward. → Read more on the RCI

Organic chemistry will always depend on carbon since it is integral to the creation of chemicals and materials that are essential in almost all industries. The most promising solution is to reuse carbon already found in materials or in the atmosphere. For a range of its products, Clariant already uses viable alternative carbon sources, such as biomass, CO_2 and recycling streams.

023 **ECOCIRCLE – THE APPROACH TO CIRCULAR SOLUTIONS**



At a glance: sources of renewable carbon

Clariant is a founding member of the Alliance to End Plastic Waste (AEPW), together with some 70 other members along the plastics value chain. Its mission is to clear plastic waste from the environment by cleaning up bodies of water; building infrastructure to collect, manage, and recycle waste; promoting new technologies; and engaging with nongovernmental organizations, businesses, and communities. Clariant supports the Alliance's goals with innovation projects that enable design for recycling or the commercialization of chemical recycling, and by actively participating in its working structure. As an AEPW member, Clariant indirectly supports the collection, sorting, and recycling of plastic waste.

Securing fit-for-purpose mechanically recycled feedstock – both post-industrial and post-commercial – that can meet key plastic applications requirement is a key industry challenge, preventing broader use of recyclate in critical applications, such as cosmetic or detergent HDPE bottles. In fact, the industry tends to use customized quality of recyclates for an individual application – which is not conducive to developing high efficiency and economies of scale and both cost and quality optimization. Furthermore, variability of feedstock and the lower level of expertise in polymer design and control of quality means that the quality of recyclates produced from mechanical recycling falls short of the high-quality standards required for large-scale convertor operations and stringent performance targets.

In this forum, Clariant has been actively participating in shaping a program that starts from the value chain and aims to understand the critical performance requirements for the key applications while defining the benefits to the industry. It addresses how the Alliance can best support in establishing clarity of the required quality for recyclates suitable for use in high-volume applications. On this basis, the forum can drive a step change. As a follow-up, it can achieve continuously improved availability of recyclates and recycling rates.

In the Low-Carbon Emitting Technology Initiative of the World Economic Forum, Clariant particularly supported the workstreams Biomass Utilization and Waste Processing of Plastic Waste.

Furthermore, Clariant joined the EU Circular Plastics Alliance (CPA) in 2021, whose goal is to boost the EU market for recycled plastics to 10 million tons by 2025. Clariant's strategy in the CPA is to combine the design option for reduction, recycling, and reuse with solutions for mechanical or chemical recycling.

The company is chairing the Cefic Sustainable Product Issue Team and is represented in a number of other industry association's bodies such as Cefic's Bioeconomy Network of Experts or the Circular Economy Working Group.

Production materials

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 because of purity or safety standard requirements. Clariant supports the expansion of chemical recycling technologies to increase the availability of recycled raw materials for its business units.

Reclaimed products and packaging materials

Clariant mostly provides reusable packaging, which customers can return 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.

BIO-BASED ECONOMY

»Bio-based economy« refers to efforts that make the economy sustainable by using biological resources, for example, by replacing fossil materials with biomass.

Currently, around 95 % of all industrially manufactured goods rely on fossil resources. However, governments worldwide have set targets for environmental and climate protection. With its »Policy framework on bio-based and bio-plastics,« the European Commission aims to develop a comprehensive policy framework on the sourcing, labeling, and use of bio-based plastics, as well as on the use of biodegradable and compostable plastics. Regarding the industrial production process, the Commission adopted the Communication »Sustainable Carbon Cycles.« Its aspirational goal is that by 2028, any ton of CO_2 captured, transported, used, and stored by industries should be reported and accounted for from its origin; by 2030, at least 20 % of the carbon used in the chemical and plastic products should come from sustainable nonfossil sources; and by 2030, 5 million tons of CO_2 should be annually removed from the atmosphere and permanently stored through technological solutions.

The bio-based economy is increasingly recognized as a way to live within the limits of our planet. Tomorrow's economy depends on today's shift to the bio-economy, and this shift comes with a responsibility: to harvest and process biological resources efficiently in a way that preserves ecosystems and biodiversity and that respects human rights. Clariant has taken on this responsibility.

Through its Portfolio Value Program (PVP), Clariant assesses the sustainability profile of the product and project portfolio. More information can be found in the → PVP chapter. In 2022, the company conducted a methodology update, which raised the ambition on bio-economy relevant topics. From an early stage of the innovation project until commercialization, the use of renewable raw materials is assessed, also considering whether they are food-competing, genetically modified, or have an impact on biodiversity.

Clariant supports projects like SPIRAL (Small Producer Inclusivity and Resilience Alliance) to foster sustainability in bio-economy supply chains. SPIRAL connects global key players in the oil palm industry to support the inclusion of small farmers in the global supply chain and promote sustainable farming methods. The Clariant Foundation, an independently managed, purely philanthropic nonprofit organization, funds organizations and projects across the globe, e.g., two projects focused on sustainability in Indonesian palm oil plantations.

Need for action: Indonesian palm oil plantations

Clariant is a supporter of sustainability-related projects on Indonesian palm oil plantations and engages in activities as part of the collaborative initiative → Action for Sustainable Derivatives, where Clariant is a member. Exemplary projects are in relation to fostering women's rights in supply chains or aim at stopping deforestation. The projects are supported by the Clariant Foundation:

HERrespect: fostering women's rights in supply chains

Global supply chain companies are an important employer of women – they represent the majority of the workforce. Many of these female workers experience a low status in the workplace and in society, high levels of harassment, and violence. Violence, which can be economic, emotional, physical, or sexual, deprives women of their basic human rights and compromises their well-being. The issue requires increased attention and awareness, and Clariant and its customers are placing an increased emphasis on social aspects and human rights due diligence in the supply chain.

In 2022, the → ASD (Action for Sustainable Derivatives) in collaboration with → BSR (Business for Social Responsibility) launched HERrespect, a unique pilot that addresses gender-based violence, e.g., in Indonesian palm oil plantations. The project is part of the initiative HERprojects™ and strives to empower women and make sure that women are able to engage in decent and dignified work by bringing together global brands, suppliers, and NGOs. More than 1 000 workplace interventions have been initiated across 17 countries since 2007.

Read more on → HERrespect

The Mosaik Initiative: stopping deforestation

Forest destruction is a threat to the whole planet. Awareness of this issue is high among consumers and media. Most deforestation is linked to meat, soy products, and palm oil. In 2022, the Action for Sustainable Derivatives (ASD), in collaboration with Business for Social Responsibility (BSR) and Inobu, an Indonesian nonprofit research institute established in 2014, launched the next phase of its Mosaik initiative in Central Kalimantan, Indonesia. This five-year project aims to protect and restore landscapes while improving the welfare of farmers and indigenous people. The Mosaik initiative focuses not only on certifying palm oil but also on making the production of commodities more sustainable and inclusive.

In 2022, Clariant completed the integration of the Brazilian Personal Care Specialties company Beraca into its portfolio, offering a full range of active and natural origin ingredients. Beraca is a leading provider of natural ingredients ethically sourced from the Amazon rainforest and other Brazilian biomes. With the Sociobiodiversity Enhancement Program®, shared value is created for the company, customers, communities, and other stakeholders. Through this, Beraca can connect Brazilian local communities to its clients, offering transparency, full traceability, give-back projects, with true positive impact by keeping the forest standing, protecting the wildlife, and water resources.

Clariant encourages supplier communities to work with different native species so that many species have economic value and thus the vegetation is conserved. Besides, there are contracts with suppliers that have as a requirement the respect for environmental laws and that on-site monitoring is carried out according to necessity.

The communities are closely monitored by the Biodiversity team, and assessments of associations and cooperatives are carried out from the point of view of quality, sustainability, and compliance. Contracts are signed with supplier communities with labor and environmental clauses, and meetings are held with all members presenting the Supplier Code of Conduct, which mainly deals with good labor and social practices.

Clariant complies with the Brazilian Forest Code. It requires landowners to maintain 35 % to 80 % of their land under native vegetation.

Management approach

Within Clariant, Group Biotechnology was integrated in 2022 into the Business Segment Biofuels & Derivatives. The Global Innovation and Sustainability Council (GISC) and the Board of Director's Innovation and Sustainability Committee oversee the topic.

The business units manage opportunities and engagements with stakeholders, create business opportunities, and initiate new product designs. The business unit contract R&D centers work on finding bio-based solutions and on developing products.

Clariant is going to enhance its corporate management approach to the bio-based economy in the near future. This will include a review of all policies and goals.

Bio-based economy policies

The company has recently defined the bio-based economy as one of its four Innovation Arenas based on three pillars: procuring raw materials, increasing the use of bio-based materials, and developing products that support a bio-economy (e.g., processing waste oil into fuels).

Clariant's focus on a bio-based economy is a distinguishing feature within the chemical industry. The company improves the sustainable profile or supports the improvement of Scope 3 at customers.

Clariant has set Scope 1, 2, and 3 emission reduction targets for 2030 in accordance with the → Science-Based Targets initiative. Bio-based products and materials play a central role in achieving these objectives, as they often have a favorable emission profile.

→ Read more on our sustainability designator TERRA
→ Read more on VITA sustainable surfactants

In December 2021, Clariant published its Global Policy on Sustainable Palm Oil, which sets forth commitments for the sourcing of sustainable palm oil, i.e., transitioning to source 100 % certified palm-based materials according to the Roundtable on Sustainable Palm Oil (RSPO) certification or equivalent. The policy also focuses on supplier requirements such as compliance with the No Deforestation, No Peat, No Exploitation (NDPE) approach. Achieving the commitments by 2025 is facilitated largely by increased transparency in the value chain, which Clariant encourages actors along the value chain to pursue. Clariant sources RSPO certified palm oil and palm kernel oil derivatives according to the RSPO Mass Balance allocation concept/scheme. Its ultimate goal is to shift all palm-related purchases to sustainable alternatives.

Since 2013, Clariant has been a partner in the Bio-based Industries Consortium (BIC). BIC represents the private sector in two public-private partnerships with the European Commission: the Bio-based Industries Joint Undertaking (2014–2020) and its successor, the Circular Bio-based Europe Joint Undertaking (2021–2027). They set goals to establish and demonstrate new sustainable circular and bio-based value chains.

Clariant has participated in the initiative »Sustainable Palm Oil and Traceability in Sabah« (SPOTS). During its participation, Clariant implemented action plans regarding the sustainability of its palm oil supply chain. They include working on the transparency of supply chains and providing support services to independent smallholders to improve their income and quality of life.

As a member of the → Action for Sustainable Derivatives (ASD), Clariant does a transparency exercise to assess how the company's portfolio is exposed to risky areas. In 2022, for the first time, the company engaged with its 20 most important suppliers within ASD by using the Sustainable Palm Index (SPI) Tool. The SPI is an evaluation scorecard for suppliers of palm-based derivatives and aims to assess the level of commitments, process, and achievements in terms of sustainable sourcing practices. It is a self-disclosure questionnaire with independent verification based on desk information. The evaluation is conducted by Transitions. Through this assessment, Clariant achieved an understanding about the level of compliance of their main suppliers. At the same time, Clariant was evaluated as a supplier itself and was evaluated as compliant. → Read more about supplier evaluation in Supply Chain Resiliency

Research for sustainable materials

Clariant has established contract R&D centers and biotechnology facilities to test a variety of different feedstocks and to turn them into high-performing, sustainable solutions. Within Clariant, Group Biotechnology was integrated into the Business Line Biofuels & Derivatives in 2022. It also partners with experts in its value chains to sustainably source and process plant ingredients. It also produces second-generation bioethanol under the sunliquid® brand. In October 2021, the construction of the first full-scale commercial cellulosic ethanol plant for sunliquid® in Podari, Romania, was completed.

In 2022, the Business Area Natural Resources continued its search for sustainable raw materials with an improved carbon footprint or toxicity profile. The Exolit® OP, Licowax®, and Licocene® Terra ranges, for example, are based on certified renewable ethylene and propylene from biomass feedstock, such as non-food-competing residue oils, helping to reduce the consumption of fossil resources.

One focus in 2022 was to scale up the sunliquid® process. The plant in Podari produced the first commercial amounts of second-generation bioethanol. The scale-up, however, also revealed some engineering challenges, which are being addressed but which are slowing the ramp-up to name plate capacity of the plant. This prompted taking an impairment to account for the revised plan in the fourth quarter.

Another focus was the scale-up of the rice bran wax-based coatings platform, which experienced rapid growth throughout the year, prompting a capacity expansion. This platform is replacing fossil-based waxes with wax derivatives based on a wax side stream from the production of rice bran oil. The resulting products have a lower carbon footprint, show excellent performance, and benefit from the inherent properties of the natural source being biodegradable or compostable and thus preventing the formation of microplastics.

In the Business Area Care Chemicals, Clariant unveiled new Vita bio-based surfactants, which are used for personal care products such as shampoo or detergents. More information can be found in the chapter → Care Chemicals of the Business Report.

In the Business Units Functional Minerals, Additives (since January 2023: Adsorbents & Additives), and Catalysts, Clariant continued to provide key ingredients and catalysts for the production of sustainable aviation fuels (SAF). For more sustainable products, see the chapter → Catalysts

The Business Unit Additives (since January 2023: Adsorbents & Additives) collaborates with the English biomaterials company Floreon, which develops and markets proprietary polylactic acid (PLA)-based compounds which are suitable also for durable and demanding applications such as flame-retarded home appliances, possibly replacing benchmark fossil-based materials with a significantly less positive carbon footprint. These polymers are mechanically tougher than traditional PLA, they deliver significant energy savings in processing, and are industrially compostable. Clariant's additives improve these biopolymers' performance and processing characteristics.

→ Read more in the Business Report's chapter Natural Resources

Certifications

Clariant considers bio-certifications when buying raw materials, especially the International Sustainability & Carbon Certification (ISCC) and the REDcert certifications. Palm-based materials are evaluated using the RSPO Mass Balance certification.

The plants of the Business Unit Additives in Knapsack and Frankfurt (both in Germany) received the ISCC Plus and REDcert certification for the mass-balance approach used in the production of product ranges containing biomass feedstocks. Both certifications are recognized schemes for validating the chain of custody and traceability of sustainable biomass, biofuels, and bioliquids in production processes.

Contribution to value creation

Clariant expects that regulations will increasingly stipulate the use of bio-based products. Moreover, there is also a high customer demand for sustainable bio-based products in Clariant's key markets, such as the personal or home care markets. Consumers are increasingly aware of climate change and related issues and are willing to pay a premium for sustainable products. This demand for bio-based chemicals will even grow in the coming years. Clariant is ready to meet this demand by protecting nature and maintaining high social standards.

To this end, Clariant considers the complete value chain – from the raw material feedstock to basic chemical manufacturers and the company's direct customers. For example, using waste streams from bio-based product processing is a promising way to connect industries and to avoid trade-offs.

Portfolio and procurement

Sustainability-driven innovation will support Clariant's average annual growth by approximately 1–2 %, with a focus on bio-based products, on decarbonization, and on circularity. At the end of 2022, more than 20 % of Clariant's portfolio was bio-based, enabled bio-based processes, or supported the transformation of bio-based raw materials. This spans most of Clariant's businesses, including care chemicals, bio-based additives, bioethanol production, and vegetable oil purification. With the → Portfolio Value Program (PVP), Clariant continuously screens its portfolio based on 39 criteria, including bio-economy, to ensure that it aligns with sustainability principles.

Across all business areas, Clariant procured more than 4 800 different raw materials. In 2022, only 15.9 % of purchased raw materials stemmed directly or indirectly from crude oil. About 26.6 % were derived from natural raw materials such as bentonite, and 4.12 % were made of renewable raw materials. The remaining materials were either base or specialty chemicals or nonchemicals. The most frequently purchased bio-based raw material was vegetable oil (e.g., palm oil and palm kernel oil), followed by wood pulp, starch, and bioethanol. In 2022, purchases of these products amounted to CHF 449 million, representing 20.9 % of direct spend.

ESG Ratings and Rankings

Clariant fosters a culture of proactive and transparent communication to address the concerns and expectations of all stakeholders. This proactiveness and transparency is key to forming reliable trust-based relationships. All stakeholders are regularly consulted on the company's activities, targets, and sustainability performance, which is well reflected in its sustainability ratings and rankings.

CARBON DISCLOSURE PROJECT

In 2022, Clariant continues to consistently participate in the Carbon Disclosure Project (CDP) Climate Change and Water Security reporting programs since its initial 2007 participation. The CDP publishes the greenhouse gas emissions (GHG) of the world's largest corporations. In 2022, Clariant was rated higher than the Chemicals sector average for Climate Change and improved its score in Forests – Palm Oil with respect to 2021.

Since 2015, Clariant has consistently achieved a score of B– or higher in the categories Climate Change and Water Security.

DOW JONES SUSTAINABILITY INDICES

Clariant is a member of the Dow Jones Sustainability Index (DJSI) Europe and is assessed as one of the most sustainable companies in its sector.

The listing in the index comes as the result of Clariant's participation in the Global Corporate Sustainability Assessment (CSA) by S&P, an annual evaluation of corporate sustainability practices focusing on both industry-specific and financially material criteria. Clariant is also a member of the S&P Sustainability Yearbook 2023.

MSCI

The Morgan Stanley Capital International (MSCI) ESG Rating measures the company's resilience to industry-specific, material long-term environmental, social, and governance (ESG) risks. MSCI uses a rules-based methodology to identify industry leaders and laggards according to their exposure to ESG risks and how well they manage those risks relative to peers. In 2022, Clariant remains rated in the AA category, which is assessed as a leader among 66 companies in the specialty chemicals industry.

SUSTAINALYTICS

In 2022, Clariant's sustainability activities were evaluated by the leading and reputable rating agency Sustainalytics. The agency uses industry-specific criteria to examine the social, environmental, and corporate governance activities of companies. It assesses the extent to which a company is exposed to material ESG issues, and how the company manages the related manageable and idiosyncratic risks. For 2022, Clariant was rated with an ESG Risk Rating of 21.2, which ranks Clariant in a position of 31 out of 539 companies in the chemicals industry group.

ECOVADIS

Clariant's sustainability performance is evaluated regularly by EcoVadis. This widely recognized third-party online assessment focuses on four key areas: environment, labor practices, fair business practices, and sustainable procurement. EcoVadis is the partner for evaluation and improvement of supplier sustainability performance selected by → Together for Sustainability (TfS), the chemical industry initiative for sustainable supply chain management. Clariant ranks among the top 2 % EcoVadis performers in its sector and across industries, with an outstanding performance in the sustainable procurement category.

FURTHER RATINGS AND RANKINGS

Euronext Vigeo Europe 120 Index

As one of 120 European companies, Clariant is included in the → Euronext Vigeo Europe 120 Index. This index consists of companies with an advanced environmental, social, and governance performance.

FTSE4Good Index

The Financial Times and the London Stock Exchange (FTSE) created the → FTSE4GOOD INDEX Series in 2001 in response to increasing focus on corporate social responsibility. FTSE rates companies for inclusion in the index on the basis of their performance in the environmental, social, and governance dimensions. In the reporting year, Clariant was listed in the FTSE4Good Index thanks to its leading ESG practices.

ISS ESG

→ Institutional Shareholder Services (ISS) is a global leading provider of corporate governance market intelligence for investors and corporations, and issues regular corporate ESG ratings on the basis of up to 100 rating criteria. In 2022, Clariant reached the »Prime« status as an industry leader.

SXI Swiss Sustainability 25

Clariant is listed in the → SXI Swiss Sustainability 25 Index, which consists of the best 25 companies from the Swiss index SMI expanded®. Ranking according to sustainability is outsourced to a third-party research provider.

Indices

Clariant reports in accordance with internationally recognized frameworks to create transparency and comparability. For 16 years, Clariant's reporting has been based on the Global Reporting Initiative (GRI). Since 2013, Clariant has committed to the United Nations Global Compacts and reports annually on its contribution to the 10 principles. Additionally, the company publishes information on climate risks in line with the Task Force on Climate-related Financial Disclosures (TCFD). Clariant also reports in accordance with the guidelines of the Sustainability Accounting Standards Board (SASB) for the first time.

GLOBAL REPORTING INITIATIVE CONTENT INDEX

Reporting according to the Global Reporting Initiative (GRI) is integral to Clariant's Reporting Hub 2022, providing comprehensive insights into 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.

Statement of use: Clariant has reported in accordance with the GRI standards for the period of 1 January to 31 December 2022.
GRI 1: Foundation 2021

		Omission			
Disclosures	Location	Requirement(s) Omitted	Reason	Explanation	External Assurance
General disclosures					
GRI 2: General Disclosures 2021					
2-1 Organizational details	→ Publication Details → Clariant Locations				
2-2 Entities included in the organization's sustainability reporting	→ Financial Report, 24. Segment Information → 36. Important Subsidiaries				
2-3 Reporting period, frequency, and contact point	Annual. 1 January-31 December 2022. Point of contact for the Integrated Report: Alessandro Canalis, alessandro.canalis@clariant.com				
2-4 Restatements of information	Any restatement of previously reported data is explained in a footnote under the respective disclosure.				
2-5 External assurance	→ Independent Limited Assurance Report				
2-6 Activities, value chain, and other business relationships	→ Business Report, Value Creation at the Group Level → Supply Chain Resiliency				
2-7 Employees	→ People Overview, New Employee Hires and Employee Turnover				
2-8 Workers who are not employees	→ Occupational Health and Safety				
2-9 Governance structure and composition	→ Corporate Governance Report, 1. Principles of Corporate Governance, → 8. Group Management, → Business Report, Introducing the Executive Leadership Team				
2-10 Nomination and selection of the highest governance body	→ Corporate Governance Report, 7. Internal Organizational Structure				
2-11 Chair of the highest governance body	→ Corporate Governance Report, 5.2.1. Günter von Au				
2-12 Role of the highest governance body in overseeing the management of impacts	→ Business Report, Operating an Integrated Business Model				
2-13 Delegation of responsibility for managing impacts	→ Corporate Governance Report, 7. Internal Organizational Structure				
2-14 Role of the highest governance body in sustainability reporting	→ Corporate Governance Report, 7. Internal Organizational Structure				
2-15 Conflicts of interest	→ Business Ethics and Compliance				
2-16 Communication of critical concerns	→ Business Ethics and Compliance				

		Omission			
Disclosures	Location	Requirement(s) Omitted	Reason	Explanation	External Assurance
2-17 Collective knowledge of the highest governance body	→ Corporate Governance Report, 5. Board of Directors				
2-18 Evaluation of the performance of the highest governance body	→ Corporate Governance Report, 7. Internal Organizational Structure				
2-19 Remuneration policies	→ Compensation Report, Compensation principles and structures → Ratio of basic salary and remuneration of women and men				
2-20 Process to determine remuneration	→ Compensation Report, Compensation principles and structures				
2-21 Annual total compensation ratio	→ Compensation Report, CEO Compensation Level vs Average Employee				
2-22 Statement on sustainable development strategy	→ Business Report, Letter to Stakeholders, Interview with the CEO				
2-23 Policy commitments	→ Business Ethics and Compliance				
2-24 Embedding policy commitments	→ Business Report, A Purpose-Led Strategy				
2-25 Processes to remediate negative impacts	→ Supply Chain Resiliency				
2-26 Mechanisms for seeking advice and raising concerns	→ Business Ethics and Compliance				
2-27 Compliance with laws and regulations	→ Business Ethics and Compliance → Product Stewardship				
2-28 Membership associations	→ Innovation and Technological Advances → Diversity, Equity, and Inclusion → Climate Protection → Circular Economy				
2-29 Approach to stakeholder engagement	→ Business Report, A Purpose-Led Strategy				
2-30 Collective bargaining agreements	→ Employee Engagement and Well-Being				
Material topics					
GRI 3: Material Topics 2021					
3-1 Process to determine material topics	→ Business Report, Business Model and Strategy				
3-2 List of material topics	→ Business Report, Business Model and Strategy				
Economic performance					
GRI 3: Material Topics 2021					
3-3 Management of material topics	→ Business Growth and Profitability				
GRI 201: Economic Performance 2016					
201-1 Direct economic value generated and distributed	→ Business Growth and Profitability				
201-2 Financial implications and other risks and opportunities due to climate change	→ Risk and Crisis Management				
201-3 Defined-benefit plan obligations and other retirement plans	→ Employee Engagement and Well-Being				

		Omission			
Disclosures	Location	Requirement(s) Omitted	Reason	Explanation	External Assurance
Market presence					
GRI 3: Material Topics 2021					
3-3 Management of material topics	→ Management approach				
GRI 202: Market Presence 2016					
202-2 Proportion of senior management hired from the local community	→ Employee Engagement and Well-Being				→ KPMG CH
Procurement practices					
GRI 3: Material Topics 2021					
3-3 Management of material topics	→ Supply Chain Resiliency				
GRI 204: Procurement Practices 2016					
204-1 Proportion of spending on local suppliers	→ Supply Chain Resiliency				→ KPMG CH
Anti-corruption					
GRI 3: Material Topics 2021					
3-3 Management of material topics	→ Management approach				
GRI 205: Anti-corruption 2016					
205-1 Operations assessed for risks related to corruption	→ Business Ethics and Compliance				
205-2 Communication and training about anti-corruption policies and procedures	→ Business Ethics and Compliance				→ KPMG CH
205-3 Confirmed incidents of corruption and actions taken	→ Business Ethics and Compliance				
Anti-competitive behavior					
GRI 3: Material Topics 2021					
3-3 Management of material topics	→ Management approach				
GRI 206: Anti-competitive Behavior 2016					
206-1 Legal actions for anti-competitive behavior, anti-trust, and monopoly practices	→ Business Ethics and Compliance				→ KPMG CH
Tax					
GRI 3: Material Topics 2021					
3-3 Management of material topics	→ Financial Report, 4.3 – Income tax and other taxes				
GRI 207: Tax 2019					
207-1 Approach to tax	→ Financial Report, 4.3 – Income tax and other taxes				
207-2 Tax governance, control, and risk management	→ Financial Report, 10. Taxes				
207-3 Stakeholder engagement and management of concerns related to tax	→ Financial Report, 10. Taxes				
207-4 Country-by-country reporting		GRI 207-4	Information unavailable/incomplete	Data is not available at country level	

		Omission			
Disclosures	Location	Requirement(s) Omitted	Reason	Explanation	External Assurance
Materials					
GRI 3: Material Topics 2021					
3-3 Management of material topics	→ Management approach				
GRI 301: Materials 2016					
301-1 Materials used by weight or volume	→ Climate Protection				→ KPMG CH
301-2 Recycled input materials used	→ Climate Protection				
301-3 Reclaimed products, and their packaging materials	→ Climate Protection				
Energy					
GRI 3: Material Topics 2021					
3-3 Management of material topics	→ Management approach				
GRI 302: Energy 2016					
302-1 Energy consumption within the organization	→ Resource Efficiency and Environmental Protection				→ KPMG CH
302-2 Energy consumption outside of the organization	→ Resource Efficiency and Environmental Protection				→ KPMG CH
302-3 Energy intensity	→ Resource Efficiency and Environmental Protection				→ KPMG CH
302-4 Reduction of energy consumption	→ Resource Efficiency and Environmental Protection				
302-5 Reductions in energy requirements of products and services	→ Resource Efficiency and Environmental Protection				
Water and effluents					
GRI 3: Material Topics 2021					
3-3 Management of material topics	→ Management approach				
GRI 303: Water and Effluents 2018					
303-1 Interactions with water as a shared resource	→ Resource Efficiency and Environmental Protection				
303-2 Management of water discharge-related impacts	→ Resource Efficiency and Environmental Protection				
303-3 Water withdrawal	→ Resource Efficiency and Environmental Protection	303-3 b. breakdown of the total withdrawal from areas with water stress	Information unavailable/incomplete	Data not available	→ KPMG CH
303-4 Water discharge	→ Resource Efficiency and Environmental Protection	303-4 c. breakdown of the total water dicharge to areas with water stress	Information unavailable/incomplete	Data not available	→ KPMG CH
303-5 Water consumption	→ Resource Efficiency and Environmental Protection				

		Omission			
Disclosures	Location	Requirement(s) Omitted	Reason	Explanation	External Assurance
Biodiversity					
GRI 3: Material Topics 2021					
3-3 Management of material topics	→ Management approach				
GRI 304: Biodiversity 2016					
304-1 Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas	→ Resource Efficiency and Environmental Protection				
304-2 Significant impacts of activities, products and services on biodiversity	→ Resource Efficiency and Environmental Protection				
304-3 Habitats protected or restored	→ Resource Efficiency and Environmental Protection				
304-4 IUCN Red List species and national conservation list species with habitats in areas affected by operations	→ Resource Efficiency and Environmental Protection				
Emissions					
GRI 3: Material Topics 2021					
3-3 Management of material topics	→ Management approach				
GRI 305: Emissions 2016					
305-1 Direct (Scope 1) GHG emissions	→ Resource Efficiency and Environmental Protection				→ KPMG CH
305-2 Energy indirect (Scope 2) GHG emissions	→ Resource Efficiency and Environmental Protection				→ KPMG CH
305-3 Other indirect (Scope 3) GHG emissions	→ Resource Efficiency and Environmental Protection				→ KPMG CH
305-4 GHG emissions intensity	→ Resource Efficiency and Environmental Protection				→ KPMG CH
305-5 Reduction of GHG emissions	→ Resource Efficiency and Environmental Protection				→ KPMG CH
305-6 Emissions of ozone-depleting substances (ODS)	→ Resource Efficiency and Environmental Protection				→ KPMG CH
305-7 Nitrogen oxides (NO_x), sulfur oxides (SO_x), and other significant air emissions	→ Resource Efficiency and Environmental Protection				→ KPMG CH
Waste					
GRI 3: Material Topics 2021					
3-3 Management of material topics	→ Management approach				
GRI 306: Waste 2020					
306-1 Waste generation and significant waste-related impacts	→ Resource Efficiency and Environmental Protection				
306-2 Management of significant waste-related impacts	→ Resource Efficiency and Environmental Protection				
306-3 Waste generated	→ Resource Efficiency and Environmental Protection				→ KPMG CH
306-4 Waste diverted from disposal	→ Resource Efficiency and Environmental Protection				→ KPMG CH
306-5 Waste directed to disposal	→ Resource Efficiency and Environmental Protection				→ KPMG CH

		Omission			
Disclosures	Location	Requirement(s) Omitted	Reason	Explanation	External Assurance
Supplier environmental assessment					
GRI 3: Material Topics 2021					
3-3 Management of material topics	→ Management approach				
GRI 308: Supplier Environmental Assessment 2016					
308-1 New suppliers that were screened using environmental criteria	→ Supply Chain Resiliency				
308-2 Negative environmental impacts in the supply chain and actions taken	→ Supply Chain Resiliency				→ KPMG CH
Employment					
GRI 3: Material Topics 2021					
3-3 Management of material topics	→ Management approach				
GRI 401: Employment 2016					
401-1 New employee hires and employee turnover	→ Employee Engagement and Well-Being				→ KPMG CH
401-2 Benefits provided to full-time employees that are not provided to temporary or part-time employees	→ Employee Engagement and Well-Being				
401-3 Parental leave	→ Employee Engagement and Well-Being				→ KPMG CH
Labor/management relations					
GRI 3: Material Topics 2021					
3-3 Management of material topics	→ Management approach				
GRI 402: Labor/Management Relations 2016					
402-1 Minimum notice periods regarding operational changes	→ Employee Engagement and Well-Being	b. No mention in the collective bargaining agreements	Information unavailable/incomplete	Data not available	
Occupational health and safety					
GRI 3: Material Topics 2021					
3-3 Management of material topics	→ Management approach				
GRI 403: Occupational Health and Safety 2018					
403-1 Occupational health and safety management system	→ Occupational Health and Safety				
403-2 Hazard identification, risk assessment, and incident investigation	→ Occupational Health and Safety				
403-3 Occupational health services	→ Occupational Health and Safety				
403-4 Worker participation, consultation, and communication on occupational health and safety	→ Occupational Health and Safety				
403-5 Worker training on occupational health and safety	→ Occupational Health and Safety				
403-6 Promotion of worker health	→ Occupational Health and Safety				

		Omission			
Disclosures	Location	Requirement(s) Omitted	Reason	Explanation	External Assurance
403-7 Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	→ Occupational Health and Safety				
403-8 Workers covered by an occupational health and safety management system	→ Occupational Health and Safety				→ KPMG CH
403-9 Work-related injuries	→ Occupational Health and Safety				→ KPMG CH
403-10 Work-related ill health	→ Occupational Health and Safety				→ KPMG CH
Training and education					
GRI 3: Material Topics 2021					
3-3 Management of material topics	→ Management approach				
GRI 404: Training and Education 2016					
404-1 Average hours of training per year per employee	→ Employee Engagement and Well-Being				→ KPMG CH
404-2 Programs for upgrading employee skills and transition assistance programs	→ Employee Engagement and Well-Being				
404-3 Percentage of employees receiving regular performance and career development reviews	→ Employee Engagement and Well-Being				→ KPMG CH
Diversity and equal opportunity					
GRI 3: Material Topics 2021					
3-3 Management of material topics	→ Management approach				
GRI 405: Diversity and Equal Opportunity 2016					
405-1 Diversity of governance bodies and employees	→ Diversity, Equity, and Inclusion				→ KPMG CH
405-2 Ratio of basic salary and remuneration of women to men	→ Diversity, Equity, and Inclusion				
Non-discrimination					
GRI 3: Material Topics 2021					
3-3 Management of material topics	→ Management approach				
GRI 406: Non-discrimination 2016					
406-1 Incidents of discrimination and corrective actions taken	→ Diversity, Equity, and Inclusion				→ KPMG CH

		Omission			
Disclosures	Location	Requirement(s) Omitted	Reason	Explanation	External Assurance
Freedom of association and collective bargaining					
GRI 3: Material Topics 2021					
3-3 Management of material topics	→ Management approach				
GRI 407: Freedom of Association and Collective Bargaining 2016					
407-1 Operations and suppliers in which the right to freedom of association and collective bargaining may be at risk	→ Human and Labor Rights				
Child labor					
GRI 3: Material Topics 2021					
3-3 Management of material topics	→ Management approach				
GRI 408: Child Labor 2016					
408-1 Operations and suppliers at significant risk for incidents of child labor	→ Human and Labor Rights				
Forced or compulsory labor					
GRI 3: Material Topics 2021					
3-3 Management of material topics	→ Management approach				
GRI 409: Forced or Compulsory Labor 2016					
409-1 Operations and suppliers at significant risk for incidents of forced or compulsory labor	→ Human and Labor Rights				
Supplier social assessment					
GRI 3: Material Topics 2021					
3-3 Management of material topics	→ Management approach				
GRI 414: Supplier Social Assessment 2016					
414-1 New suppliers that were screened using social criteria	→ Supply Chain Resiliency				
414-2 Negative social impacts in the supply chain and actions taken	→ Supply Chain Resiliency				→ KPMG CH
Customer health and safety					
GRI 3: Material Topics 2021					
3-3 Management of material topics	→ Management approach				
GRI 416: Customer Health and Safety 2016					
416-1 Assessment of the health and safety impacts of product and service categories	→ Product Stewardship				
416-2 Incidents of non-compliance concerning the health and safety impacts of products and services	→ Product Stewardship				→ KPMG CH

		Omission			
Disclosures	Location	Requirement(s) Omitted	Reason	Explanation	External Assurance
Marketing and labeling					
GRI 3: Material Topics 2021					
3-3 Management of material topics	→ Management approach				
GRI 417: Marketing and Labeling 2016					
417-1 Requirements for product and service information and labeling	→ Product Stewardship				
417-2 Incidents of non-compliance concerning product and service information and labeling	→ Product Stewardship				→ KPMG CH
417-3 Incidents of non-compliance concerning marketing communications	→ Product Stewardship				→ KPMG CH
Customer privacy					
GRI 3: Material Topics 2021					
3-3 Management of material topics	→ Management approach				
GRI 418: Customer Privacy 2016					
418-1 Substantiated complaints concerning breaches of customer privacy and losses of customer data	→ Customer Relationships				→ KPMG CH

SUSTAINABILITY ACCOUNTING STANDARDS BOARD INDEX

The Sustainability Accounting Standards Board (SASB) provides 77 Industry Standards to guide the disclosure of financially material sustainability information. By publishing a SASB Index in alignment with the Chemicals Standard, Clariant reports for the second time on the predefined material topics and their associated metrics for the typical company in an industry.

Topic	Accounting Metric	Code	References to chapters and sections of Clariant's Integrated Reporting 2022	Comments or references to further publicly available information
Greenhouse Gas Emission	Gross global Scope 1 emissions, percentage covered under emissions-limiting regulations	RT-CH-110a.1	→ Scope 1 & 2 emissions	0.65 % of gross global Scope 1 emissions are covered under emissions-limiting regulations.
	Discussion of long-term and short-term strategy or plan to manage Scope 1 emissions, emissions reduction targets, and an analysis of performance against those targets	RT-CH-110a.2	→ Strategy	
Air Quality	Air emissions of the following pollutants: (1) NO_x (excluding N_2O), (2) SO_x, (3) volatile organic compounds (VOCs), and (4) hazardous air pollutants (HAPs)	RT-CH-120a.1	→ Table Nitrogen Oxides (NO_x), Sulfur Oxides (SO_x), and other Significant Air Emissions, → Reduction of Scope 1, 2, and 3 emissions, → Sustainability targets	No reporting of HAPs.
Energy Management	(1) Total energy consumed, (2) percentage grid electricity, (3) percentage renewable, (4) total self-generated energy	RT-CH-130a.1	→ Energy consumption	No reporting of total self-generated energy.
Water Management	(1) Total water withdrawn, (2) total water consumed, percentage of each in regions with High or Extremely High Baseline Water Stress	RT-CH-140a.1	→ Water withdrawal and intake	
	Number of incidents of noncompliance associated with water quality permits, standards, and regulations	RT-CH-140a.2	→ Water risk management	
	Description of water management risks and discussion of strategies and practices to mitigate those risks	RT-CH-140a.3	→ Water risk management, → Wastewater management	
Hazardous Waste Management	Amount of hazardous waste generated, percentage recycled	RT-CH-150a.1	→ Table Waste by Type and Disposal Method	
Community Relations	Discussion of engagement processes to manage risks and opportunities associated with community interests	RT-CH-210a.1	→ Regulatory compliance → Supplier evaluation	
Workforce Health & Safety	(1) Total recordable incident rate (TRIR) and (2) fatality rate for (a) direct employees and (b) contract employees	RT-CH-320a.1	→ Table Occupational Accidents	
	Description of efforts to assess, monitor, and reduce exposure of employees and contract workers to long-term (chronic) health risks	RT-CH-320a.2	→ Occupational Health and Safety programs and training → Hazard identification, risk assessment, and incident investigation	
Product Design for Use-phase Efficiency	Revenue from products designed for use-phase resource efficiency	RT-CH-410a.1		Revenue not reported.
Safety & Environmental Stewardship of Chemicals	(1) Percentage of products that contain Globally Harmonized System of Classification and Labeling of Chemicals (GHS) Category 1 and 2 Health and Environmental Hazardous Substances, (2) percentage of such products that have undergone a hazard assessment	RT-CH-410b.1		(1) Not reported (2) 100 %
	Discussion of strategy to (1) manage chemicals of concern and (2) develop alternatives with reduced human and/or environmental impact	RT-CH-410b.2	→ Portfolio Value Program	

Topic	Accounting Metric	Code	References to chapters and sections of Clariant's Integrated Reporting 2022	Comments or references to further publicly available information
Genetically Modified Organisms	Percentage of products by revenue that contain genetically modified organisms (GMOs)	RT-CH-410c.1	→ Genetically modified organisms	
Management of the Legal & Regulatory Environment	Discussion of corporate positions related to government regulations and/or policy proposals that address environmental and social factors affecting the industry	RT-CH-530a.1	→ Business Ethics and Compliance → Priorities 2022 → TCFD → 3. Financial risk management	
Operational Safety, Emergency Preparedness & Response	Process Safety Incidents Count (PSIC), Process Safety Total Incident Rate (PSTIR), and Process Safety Incident Severity Rate (PSISR)	RT-CH-540a.1	→ Safety management system	
	Number of transport incidents	RT-CH-540a.2		In 2022, Clariant had 6 transport incidents.
Activity Metric	Production by reportable segment	RT-CH-000.A	→ Table Business Model → Business Area Care Chemicals → Business Area Catalysis → Business Area Natural Resources	

TASK FORCE ON CLIMATE-RELATED FINANCIAL DISCLOSURES INDEX

Since January 2021, Clariant has been an official supporter of the Task Force on Climate-related Financial Disclosures (TCFD). The Reporting Hub 2022 features TCFD-related disclosures for the second time. The TCFD framework makes it possible to systematically manage and report on the risks, mitigations, and governance resulting from the threats of a changing climate. The Task Force recommends four core elements: governance, strategy, risk management, and metrics and targets.

Recommendations	Recommended Disclosures	References to chapters and sections of Clariant's Integrated Reporting 2022	Comments or references to further publicly available information
Governance Disclose the organization's governance around climate-related risks and opportunities.	Describe the board's oversight of climate-related risks and opportunities.	→ Governance	→ CDP Climate Change – C1.1b
	Describe management's role in assessing and managing climate-related risks and opportunities.	→ Governance	→ CDP Climate Change – C1.2
Strategy Disclose the actual and potential impacts of climate-related risks and opportunities on the organization's businesses, strategy, and financial planning where such information is material.	Describe the climate-related risks and opportunities the organization has identified over the short, medium, and long term.	→ Strategy	→ CDP Climate Change – C2.1a → CDP Climate Change – C2.3 → CDP Climate Change – C2.3a → CDP Climate Change – C2.4 → CDP Climate Change – C2.4a
	Describe the impact of climate-related risks and opportunities on the organization's businesses, strategy, and financial planning.	→ Strategy	→ CDP Climate Change – C2.3a → CDP Climate Change – C2.4a → CDP Climate Change – C3.1 → CDP Climate Change – C3.2b → CDP Climate Change – C3.3 → CDP Climate Change – C3.4
	Describe the resilience of the organization's strategy, taking into consideration different climate-related scenarios, including a 2 °C or lower scenario.	→ Strategy	→ CDP Climate Change – C3.2 → CDP Climate Change – C3.2a → CDP Climate Change – C3.2b
Risk Management Disclose how the organization identifies, assesses, and manages climate-related risks.	Describe the organization's processes for identifying and assessing climate-related risks.	→ Risk management	→ CDP Climate Change – C2.1 → CDP Climate Change – C2.2 → CDP Climate Change – C2.2a
	Describe the organization's processes for managing climate-related risks.	→ Risk management → Table Climate-related Opportunities → Table Climate-related Risks	→ CDP Climate Change – C2.1 → CDP Climate Change – C2.2
	Describe how processes for identifying, assessing, and managing climate-related risks are integrated into the organization's overall risk management.	→ Risk management	→ CDP Climate Change – C2.1 → CDP Climate Change – C2.2
Metrics and Targets Disclose the metrics and targets used to assess and manage relevant climate-related risks and opportunities where such information is material.	Disclose the metrics used by the organization to assess climate-related risks and opportunities in line with its strategy and risk management process.	→ Metrics and targets → New sustainability targets	→ CDP Climate Change – C4.2 → CDP Climate Change – C4.2a → CDP Climate Change – C4.2b → CDP Climate Change – C9.1
	Disclose Scope 1, Scope 2, and, if appropriate, Scope 3 greenhouse gas (GHG) emissions, and the related risks.	→ Metrics and targets → Reduction of Scope 1, 2, and 3 emissions	→ CDP Climate Change – C6.1 → CDP Climate Change – C6.3 → CDP Climate Change – C6.5 → CDP Climate Change – C6.5a
	Describe the targets used by the organization to manage climate-related risks and opportunities and performance against targets.	→ Metrics and targets → New sustainability targets → Reduction of Scope 1, 2, and 3 emissions	→ CDP Climate Change – C4.1 → CDP Climate Change – C4.1a → CDP Climate Change – C4.1b → CDP Climate Change – C4.2 → CDP Climate Change – C4.2a → CDP Climate Change – C4.2b

UNITED NATIONS GLOBAL COMPACT INDEX

Clariant has been a member of the United Nations Global Compact (UNGC) since 2013 and reports on its contribution to the ten principles of the Global Compact in this Communication on Progress (COP).

Topic	Principles	References to chapters and sections of Clariant's Integrated Reporting 2022
Human Rights	1: Businesses should support and respect the protection of internationally proclaimed human rights; and	→ Human and Labor Rights → Supply chain policy → Bio-Based Economy
	2: make sure that they are not complicit in human rights abuses.	→ Policies and guidelines
Labor	3: Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining	→ Contract labor
	4: the elimination of all forms of forced and compulsory labor;	→ Child, forced, or compulsory labor
	5: the effective abolition of child labor; and	→ Child, forced, or compulsory labor
	6: the elimination of discrimination in respect of employment and occupation.	→ Diversity, Equity, and Inclusion → Management approach
Environment	7: Businesses should support a precautionary approach to environmental challenges;	→ Management approach → Sustainability targets
	8: undertake initiatives to promote greater environmental responsibility; and	→ Corporate programs of resource efficiency and environmental protection
	9: encourage the development and diffusion of environmentally friendly technologies.	→ Bio-Based Economy → Circular Economy → Product Stewardship
Anti-Corruption	10: Businesses should work against corruption in all its forms, including extortion and bribery.	→ Business Ethics and Compliance

Independent limited assurance report on selected quantitative and qualitative Sustainability Information of Clariant AG

To the Board of Directors of Clariant AG

We have undertaken a limited assurance engagement on Clariant AG's (hereinafter "Clariant") following selected quantitative and qualitative Sustainability Information published in the "Review on Performance, People and Planet" section of Clariant's Integrated Report 2022 for the financial year from the 1st of January 2022 to the 31st of December 2022 (hereinafter "Sustainability Information"):

- Classification of 2022 sales indicators on page 10
- Integrity line indicators on page 18
- Communication and training on anti-corruption policies and procedures indicators on page 19
- Production sites and facilities indicators on page 20
- Raw material procurement indicators on page 20
- Percentage of suppliers assessed via Ecovadis indicator on page 21
- Negative environmental and social impacts in the supply chain indicators on page 22
- Innovation and technological advances indicators on page 25
- Sustainability portfolio classification on page 13
- People overview indicators on page 35
- Average hours of training per year per employee indicators on page 37
- Percentage of employees receiving regular performance and career development indicators on page 38
- New employee hires and employee turnover indicators on page 41
- Proportion of senior management hired from the local community indicator on page 42
- Parental leave indicators on page 42
- Diversity of governance bodies and employees indicators on page 45
- Number of incidents of discrimination indicator on page 45
- Number of employees by age group indicators on page 45
- Management functions indicators on page 46
- Breakdown of employees per nationality indicators on page 46
- FTEs by region indicators on page 47
- Work-related injuries indicators on page 49
- Occupational accidents indicators on page 49
- Employees covered by an occupational health and safety management system indicators on page 51
- Occupational accidents by region indicators on page 51
- Occupational accidents of contractors indicators on page 51
- Planet overview indicators on page 58
- Energy consumption indicators on page 62
- Water withdrawal and intake indicators on page 62
- Water discharge indicators on page 63
- Waste by type and disposal method indicators on page 64
- Safety management indicators on page 65
- Emissions indicators on page 67
- Nitrogen Oxides (NOx), Sulfur Oxides (SOx) and other significant air emissions indicators on page 68
- Indirect (Scope 3) GHG emissions indicators on page 69
- Materials used by weight or volume indicators on page 77

Our assurance engagement does not extend to information in respect of earlier periods or to any other information included in Clariant's Integrated Report 2022 or any other Report, including any images, audio files or embedded videos.

Our Limited Assurance Conclusion

Based on the procedures we have performed as described under the *'Summary of the work we performed as the basis for our assurance conclusion'* and the evidence we have obtained, nothing has come to our attention that causes us to believe that the Sustainability Information in Clariant's Integrated Report 2022 for the financial year from the 1st of January 2022 to the 31st of December 2022 is not prepared, in all material respects, in accordance with the Global Reporting Initiative (GRI) Standards and Clariant's own reporting criteria as described in the "Review on Performance, People and Planet" section of Clariant's Integrated Report 2022.

We do not express an assurance conclusion on information in respect of earlier periods or to any other information included in Clariant's Integrated Report 2022 or any other Report, including any images, audio files or embedded videos.

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Understanding how Clariant AG has Prepared the Sustainability Information

The GRI Standards and the criteria described and summarized in the "Review on Performance, People and Planet" section of Clariant's Integrated Report 2022 have been used as criteria references for the Sustainability Information. Consequently, the Sustainability Information needs to be read and understood together with these standards and criteria.

Inherent Limitations in Preparing the Sustainability Information

Due to the inherent limitations of any internal control structure, it is possible that errors or irregularities may occur in disclosures of the Sustainability Information and not be detected. Our engagement is not designed to detect all internal control weaknesses in the preparation of the Sustainability Information because the engagement was not performed on a continuous basis throughout the period and the audit procedures performed were on a test basis.

Clariant's Responsibilities

The Board of Directors of Clariant is responsible for:

- Selecting or establishing suitable criteria for preparing the Sustainability Information, taking into account applicable law and regulations related to reporting the Sustainability Information;
- The preparation of the Sustainability Information in accordance with the criteria (GRI and the criteria described and summarized in the "Review on Performance, People and Planet" section of Clariant's Integrated Report 2022); and
- Designing, implementing and maintaining internal control over information relevant to the preparation of the Sustainability Information that is free from material misstatement, whether due to fraud or error.

Our Responsibilities

We are responsible for:

- Planning and performing the engagement to obtain limited assurance about whether the Sustainability Information is free from material misstatement, whether due to fraud or error;
- Forming an independent conclusion, based on the procedures we have performed and the evidence we have obtained; and
- Reporting our independent conclusion to the Board of Directors of Clariant.

As we are engaged to form an independent conclusion on the Sustainability Information as prepared by the Board of Directors we are not permitted to be involved in the preparation of the Sustainability Information as doing so may compromise our independence.

Professional Standards Applied

We performed a limited assurance engagement in accordance with International Standard on Assurance Engagements 3000 (Revised) *Assurance Engagements other than Audits or Reviews of Historical Financial Information*, issued by the International Auditing and Assurance Standards Board.

Our Independence and Quality Control

We have complied with the independence and other ethical requirements of the *International Code of Ethics for Professional Accountants (including International Independence Standards)* 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 behavior.

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.

Our work was carried out by an independent and multidisciplinary team including assurance practitioners and sustainability experts. We remain solely responsible for our assurance conclusion.

Summary of the Work we Performed as the Basis for our Assurance Conclusion

We are required to plan and perform our work to address the areas where we have identified that a material misstatement of the Sustainability Information is likely to arise. The procedures we performed were based on our professional judgment. Carrying out our limited assurance engagement on the Sustainability Information included, among others:

- Assessment of the design and implementation of systems, processes and internal controls for determining, processing and monitoring sustainability performance data, including the consolidation of data;

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- Inquiries of employees responsible for the determination and consolidation as well as the implementation of internal control procedures regarding the selected disclosures;
- Inspection of selected internal and external documents to determine whether quantitative and qualitative information is supported by sufficient evidence and presented in an accurate and balanced manner;
- Assessment of the data collection, validation and reporting processes as well as the reliability of the reported data on a test basis and through testing of selected calculations;
- Analytical assessment of the data and trends of the quantitative disclosures included in the scope of the limited assurance engagement;
- Assessment of the consistency of the disclosures applicable to Clariant with the other disclosures and key figures and of the overall presentation of the disclosures through critical reading of Clariant's Integrated Report 2022.

The procedures performed in a limited assurance engagement vary in nature and timing from, and are less in extent than for, a reasonable assurance engagement. Consequently, the level of assurance obtained in a limited assurance engagement is substantially lower than the assurance that would have been obtained had we performed a reasonable assurance engagement.

KPMG AG

Silvan Jurt

Licensed audit expert

Cyrill Kaufmann

Licensed audit expert

Zurich, 01 March 2023

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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.

→ Glossary

CLARIANT

2022

Corporate Governance Report

Greater chemistry

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The Integrated Report consists of five reports that cover important aspects of our business. They can be read in conjunction with each other. Together, the reports provide a full picture of our ability to create long-term value.

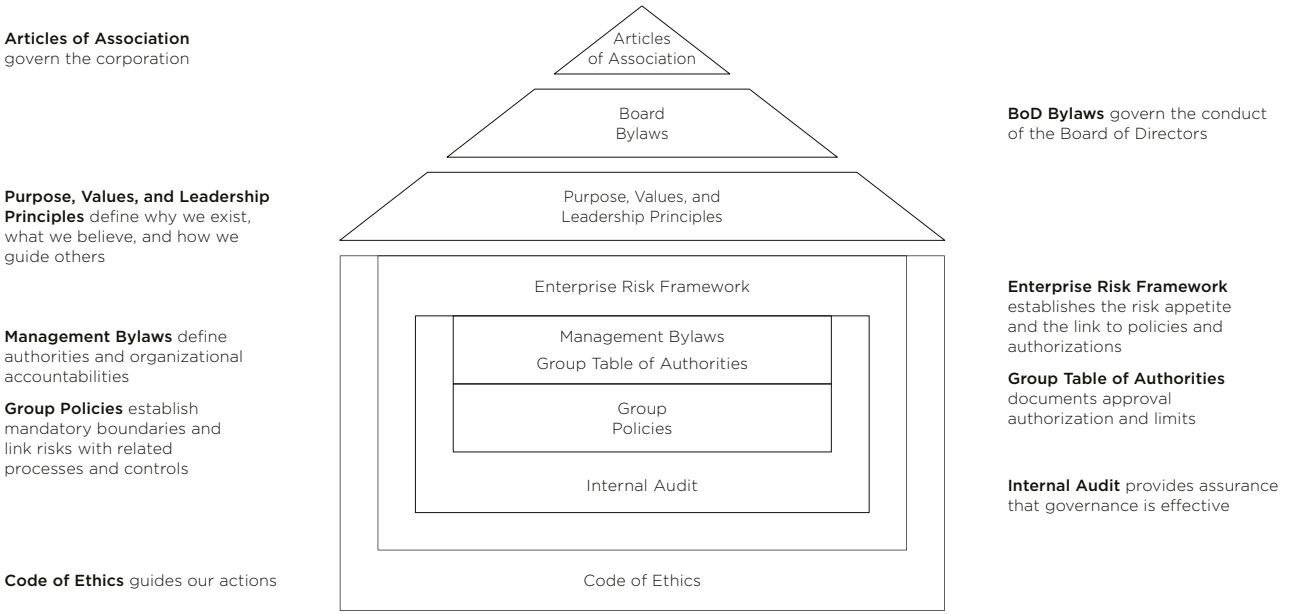
Corporate Governance Report 2022

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 of the Board of Directors, the organizational Group regulations of the Clariant Group, and the Clariant Code of Ethics. 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 Ethics can be viewed at www.clariant.com/corporate-governance.

001 **GROUP CHARTER HOUSE COMPRISES ALL MAIN GOVERNANCE ELEMENTS**



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. These companies' shares are not publicly traded.

[Note: Clariant Chemicals (India) Ltd was sold as part of the divestment of Clariant's pigment business, the Business Unit Pigments, on 3 January 2022. Clariant Chemicals (India) Ltd, in which Clariant owned 51 %, was a publicly traded company based in Airoli, Navi Mumbai, India, and listed on the Bombay Stock Exchange (»BSE«) and the National Stock Exchange (»NSE«) in India.]

The important subsidiaries of Clariant Ltd are listed in note 36 of the Notes to the consolidated financial statements of the Clariant Group in the Financial Report 2022.

The Group conducts its business through five business units: Additives, Catalysts, Functional Minerals, Industrial & Consumer Specialties, and Oil and Mining Services. It reports its continuing operations in the following three business areas: Care Chemicals, Catalysis, and Natural Resources (i.e., Functional Minerals, Oil and Mining Services, and Additives). The Business Unit Pigments was divested on 3 January 2022.

[Note: As of 1 January 2023, the Group conducts its business through three newly formed business units: The new Business Unit »Care Chemicals« (consisting of the two former Business Units Industrial & Consumer Specialties and Oil and Mining Services), the new Business Unit »Catalysts« (consisting of the former Business Unit Catalysts), and the new Business Unit »Adsorbents & Additives« (consisting of the two former Business Units Additives and Functional Minerals).]

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 2022, 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	31.50 % [1]
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. SABIC has not changed its participation of 31.5 % since then. The difference between this figure (i.e., 31.5 %) and the 32.35 % stated for 2021 corresponded to the amount of treasury shares held by Clariant Ltd as of 31 December 2021, which had 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. Said Governance Agreement expired at the Annual General Meeting dated 24 June 2022 and consequently the treasury shares of Clariant Ltd have not to be aggregated to the shares held by SABIC any longer.

[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 2022 financial year 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

As of 31 December 2022, Clariant Ltd itself held shares in treasury, corresponding to 0.88 % of the share capital.

3. CROSS-SHAREHOLDINGS

There are no cross-shareholdings.

4. CAPITAL STRUCTURE

4.1. Capital

As of 31 December 2022, the fully paid-in nominal share capital of Clariant Ltd totaled CHF 863 041 917.40 and was divided into 331 939 199 registered shares, each with a par value of CHF 2.60. Clariant Ltd shares have been listed on the SIX Swiss Exchange since 1995 (symbol: CLN, ISIN CH0012142631). Clariant Ltd does not issue nonvoting equity securities (Genussscheine or Partizipationsscheine). Based on the closing price of the Clariant share of CHF 14.65 on 31 December 2022, the company's market capitalization at year-end amounted to CHF 4 862 909 265. Except for the share capital reductions in 2021 and 2022 as a consequence of the distributions through capital reductions by way of par value reduction (see below → section 4.3 of the Corporate Governance Report 2022), there was no change in the capital structure of Clariant Ltd in the last three years (2020 to 2022).

4.2. Conditional capital

The company's share capital may be increased by no more than CHF 9 910 903.60 by issuing the remaining 3 811 886 registered shares, each with a par value of CHF 2.60, 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 at www.clariant.com/en/Company/Corporate-Governance/Articles-of-Association.

4.3. Distribution through capital reduction by way of par value reduction

In the 2022 calendar year, a distribution in the total amount of CHF 0.40 per share was decided on by the Annual General Meeting. The total amount of CHF 131 685 448.40 was paid out on 12 September 2022.

A table with additional information on the distribution of capital reserves can be found in note 17 of the Financial Report 2022.

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 apply to nominees who fail to disclose the identity of the persons they represent and whose shareholding exceeds 2%. www.clariant.com/en/Company/Corporate-Governance/Articles-of-Association

4.6. Options

There are no options or option rights.

4.7. General Blackout Periods

The periods during which information and data is prepared for publication (»Closed Periods« or »General Blackout Periods«) will be determined and expressly notified to all insiders each year. The Closed Periods cover the following periods:

- Before publication of the half-year and the full-year results;
- Before publication of the quarterly reporting;
- The periods shortly before the disclosure to the markets of inside information related to the Clariant business.

Upon receiving such inside information, the primary insiders (which include members of the Board of Directors, the Executive Management, and employees having access to inside information, e.g., in the accounting, finance, investor relations, and law departments) are entered in a register, and the register generates an »Insider Trading message« to these insiders. It is particularly stated that no transactions in Clariant securities shall be made during Closed Periods, and it is further made clear that the trading prohibition and the obligation of confidentiality will be in effect, irrespective of whether or not the publication of the inside information concerned is likely to have a significant effect on the value of Clariant securities. Noncompliance may not only entail disciplinary measures but also result in criminal charges.

5. BOARD OF DIRECTORS

5.1. General information

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. Members of the Board are elected individually by the Annual General Meeting for a term of one year.

All members of the Board of Directors are considered to be independent in accordance with best-practice standards, in particular the »Swiss Code of Best Practice for Corporate Governance«. No member of the Board of Directors exceeded any of the maximum number of mandates as set forth in Article 38 of the Articles of Association, except for Abdullah Mohammed Alissa (whose term ended at the Annual General Meeting dated 24 June 2022) in accordance with the transitional provision, Article 44, in the Articles of Association (www.clariant.com/en/Company/Corporate-Governance/Articles-of-Association).

5.2. Members of the Board of Directors

5.2.1 Günter von Au, German citizen

Function at Clariant: Chairman of the Board of Directors; Non-executive Member of the Board of Directors
Born: 1951
Year of first election: 2011[1]
Independency: Independent
Experience: CEO; Chemical Industry; Strategy; Operational

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.

[1] The election at the Annual General Meeting in 2011 was subject to the condition that Günter von Au would step down from his position as the CEO of the Management Board of Süd-Chemie AG – which he did on 31 March 2012. Günter von Au actually joined the Board of Directors of Clariant Ltd on 1 April 2012, i.e., shortly after the 2012 Clariant Annual General Meeting, which took place on 27 March 2012.

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 in listed companies:
Mandates according to Article 38 para. 1 lit. a): None.

Mandates in unlisted companies:
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.

5.2.2. Abdullah Mohammed Alissa, Saudi Arabian citizen

Function at Clariant: Vice-Chairman from 29 June 2020 until the Annual General Meeting dated 24 June 2022; Non-executive Member of the Board of Directors
Born: 1956
Year of first election: 2018
Independency: Independent (nominated by SABIC International Holdings B.V.)
Experience: CEO; M&A; Chemical Industry; Strategy; Operational

Professional career: Abdullah Mohammed Alissa holds a Bachelor of Science degree in industrial engineering and a Master of Science degree 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 the Chairman of the Board of Riyad Bank, is also the Chairman of Assila Investments Company, AMIAS Holding Co., and Abdullah Mohammed Alissa Consulting Engineers. He previously held positions of Chairman of National Medical Care Co., Chairman of Arabian Cement, and Vice-Chairman of Etihad Etisalat (Mobily), 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 in listed companies:
Mandates according to Article 38 para. 1 lit. a): Two:
- Saudi Basic Industries Corporation (SABIC), Saudi Arabia
- Riyad Bank, Saudi Arabia

Mandates in unlisted companies:
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

5.2.3. Ahmed Mohammed Al Umar, Saudi Arabian citizen

Function at Clariant: Vice-Chairman of the Board of Directors since the Annual General Meeting dated 24 June 2022; Non-executive Member of the Board of Directors
Born: 1964
Year of first election: 2022
Independency: Independent (nominated by SABIC International Holdings B.V.)
Experience: Chemical Industry; M&A

Professional career: Ahmed Mohammed Al Umar holds a bachelor's degree in business administration from the King Abdulaziz University, Saudi Arabia, and an executive Master of Business Administration (MBA) degree from the King Fahad University of Petroleum and Minerals, Saudi Arabia. Since 2019, he has also been a Certified Board Director.

He started his career with SABIC in 1987 as an Operations & Information Analyst in the controlling department, followed by management positions in SABIC's fertilizer business unit. From 1999 to 2006, he was General Manager in the CEO Office, responsible for Special Projects. Between 2006 and 2015, he held several senior management positions, including General Manager Sales & Marketing – Aromatics & Olefins of SABIC's chemicals business unit (2006-2008), General Manager SABIC Asia-Pacific (2008-2010), Vice President and Head of SABIC Asia-Pacific (2010-2011) as well as Vice President of SABIC's global oxygenates business unit (2011–2015). From 2015 to 2020, Ahmed Mohammed Al Umar was Vice President of Joint Venture Affairs. Since 2020, he has been Vice President Joint Venture Affairs and M&A and is responsible for all global merger and acquisition deals, as well as SABIC's external growth and strategy from the initiation of deals to the execution of transactions. In addition, he oversees SABIC's interest in all its global investments. He also manages all JV agreements, renewals of existing JVs, managing partners' relations, and the JVs' governance and control frameworks.

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 in listed companies:
Mandates according to Article 38 para. 1 lit. a): None.

Mandates in unlisted companies:
Mandates according to Article 38 para. 1 lit. b): Five:
- Saudi Methanol Company, Saudi Arabia
- Gulf Petrochemical Industries Co (GPIC), Sitra, Bahrain
- Nusaned Investment Company, Saudi Arabia

— SABIC Fujian, China
— GCC Board Directors Institute (BDI)

Mandates according to Article 38 para. 1 lit. c): None.

5.2.4. Nader Ibrahim Alwehibi, Saudi Arabian citizen

Function at Clariant: Non-executive Member of the Board of Directors until the Annual General Meeting dated 24 June 2022
Born: 1980
Year of first election: 2020
Independency: Independent (nominated by SABIC International Holdings B.V.)
Experience: M&A; Chemical Industry

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 was the Assistant Governor for Insurance Affairs with the General Organization for Social Insurance (GOSI) of Saudi Arabia until 31 December 2021 and has been working for the Gulf Catering Company since 2 January 2022. 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 in listed companies:
Mandates according to Article 38 para. 1 lit. a): Two:
— Saudi Basic Industries Corporation (SABIC), Saudi Arabia
— Riyad Bank, Saudi Arabia

Mandates in unlisted companies:
Mandates according to Article 38 para. 1 lit. b): None.
Mandates according to Article 38 para. 1 lit. c): Two:
— Mudad, Saudi Arabia
— Future of Work, Saudi Arabia

5.2.5. Roberto Césare Gualdoni, German and Italian citizen

Function at Clariant: Non-executive Member of the Board of Directors since the Annual General Meeting dated 24 June 2022
Born: 1956
Year of first election: 2022
Independency: Independent (nominated by SABIC International Holdings B.V.)
Experience: CEO; Chemical Industry; M&A

Professional career: Roberto Césare Gualdoni holds a master's degree in industrial engineering from the University of Buenos Aires, Argentina, as well as an MBA from INSEAD in Fontainebleau, France. He started his professional career in 1983 as a Commercial Coordinator for the global seamless steel pipe business at Tenaris in Buenos Aires, Argentina. In 1987, he joined BASF, where he held various management positions over the years, including Group Vice President of the foam products business unit from 1998 to 2001, Group Vice President of the engineering plastics Europe business unit from 2001 to 2005, Senior Vice President of Global Procurement Basic Products from 2006 to 2007, and Senior Vice President Global Procurement Raw Materials from 2007 to 2010. In 2010, he became President of BASF's styrenics business unit, which merged with INEOS units to form the Styrolution Group, a global leader in styrenics for the automotive, electronics, household appliances, construction, and healthcare industries. Here, he served as CEO from 2011 to 2014.

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 in listed companies:
Mandates according to Article 38 para. 1 lit. a): One:
— Synthomer plc, Harlow, UK

Mandates in unlisted companies:
Mandates according to Article 38 para. 1 lit. b): Two:
— CABB, Sulzbach,Germany
— American Aerogel Corp., Rochester, USA

Mandates according to Article 38 para. 1 lit. c): One:
— Arceegee Consulting, Wachenheim, Germany.

5.2.6. Calum MacLean, British citizen

Function at Clariant: Non-executive Member of the Board of Directors until the Annual General Meeting dated 24 June 2022
Born: 1963
Year of first election: 2018
Independency: Independent (nominated by SABIC International Holdings B.V.)
Experience: CEO; M&A; Chemical Industry; Operational

Professional career: Calum MacLean holds a Bachelor of Science degree (with honors) 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. He was Chief Executive Officer of Synthomer plc (UK FTSE 250 listed), a speciality chemicals company, from January 2015 until 1 November 2021. 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 until 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 PetroChina). 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 in listed companies:
Mandates according to Article 38 para. 1 lit. a): One:
— Saudi Basic Industries Corporation (SABIC), Saudi Arabia

Mandates in unlisted companies:
Mandates according to Article 38 para. 1 lit. b) and c): None.

5.2.7. Thilo Mannhardt, German citizen

Function at Clariant: Non-executive Member of the Board of Directors
Born: 1954
Year of first election: 2020
Independency: Independent
Experience: CEO; M&A; Chemical Industry; Operational

Professional career: Thilo Mannhardt studied aeronautical and space engineering and received a master's degree from the Technical University of Berlin, Germany, where he also completed his PhD in 1985. In addition, he received a postgraduate certificate in business administration 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 Member of the Board 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 on the Advisory Council of PE Victoria Capital. He was a Member of the Board of Directors and CEO of Ultrapar SA from 2011 until 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 in listed companies:
Mandates according to Article 38 para. 1 lit. a): One:
— C&A Modas S.A., Brazil

Mandates in unlisted companies:
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

5.2.8. Geoffery Merszei, Canadian and Swiss citizen

Function at Clariant: Non-executive Member of the Board of Directors
Born: 1951
Year of first election: 2018
Independency: Independent (nominated by SABIC International Holdings B.V.)
Experience: CEO; CFO/Audit; M&A; Chemical Industry; Operational

Professional career: Geoffery Merszei holds a Bachelor of Science degree 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 until 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 Member of the Board of the Chemical Financial Corporation and as a trustee and Member of the Executive Committee of the United States Council for International Business.

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 in listed companies:
Mandates according to Article 38 para. 1 lit. a): None.

Mandates in unlisted companies:
Mandates according to Article 38 para. 1 lit. b): None.
Mandates according to Article 38 para. 1 lit. c): One:
— Zolenza AG, Switzerland

5.2.9. Eveline Saupper, Swiss citizen

Function at Clariant: Non-executive Member of the Board of Directors
Born: 1958
Year of first election: 2016
Independency: Independent
Experience: M&A; Strategy

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 in listed companies:
Mandates according to Article 38 para. 1 lit. a): Three:
— Flughafen Zürich AG, Switzerland

— Georg Fischer AG, Switzerland
— Forbo Holding AG, Switzerland

Mandates in unlisted companies:
Mandates according to Article 38 para. 1 lit. b): One:
— Stäubli Holding AG, Switzerland

Mandates according to Article 38 para. 1 lit. c): Four:
— Mentex Holding AG, Switzerland
— UZH [University of Zurich] Foundation, Switzerland
— Tourismus Savognin Bivio Albula AG, Switzerland
— Foundation Piz Mitgel Val Surses, Switzerland

5.2.10. Naveena Shastri, American citizen

Function at Clariant: Non-executive Member of the Board of Directors since the Annual General Meeting dated 24 June 2022
Born: 1964
Year of first election: 2022
Independency: Independent (nominated by SABIC International Holdings B.V.)
Experience: M&A; Chemical Industry

Professional career: Naveena Shastri holds a bachelor's degree in history and political science from Bangalore University, India; a law degree from Cambridge University, England; and an LL.M. from Harvard University.

She worked for Dresdner Kleinwort Benson Investment Bank and, before that, at Linklaters in London in their project finance department. Naveena Shastri is currently the Vice President & General Counsel of SABIC, a position that she has held since 1 January 2017. As a key senior executive leader for SABIC, she has primary responsibility for managing the legal, compliance, and corporate governance aspects of SABIC on a global basis, providing strategic counsel to SABIC's executive leadership and leading and developing the global legal team. Naveena Shastri also leads SHE, the SABIC Women's Network, globally and is an active champion of SABIC's diversity and inclusion initiatives. She is based in Houston, Texas, USA. Prior to becoming SABIC's General Counsel, Naveena Shastri was the Chief Regional Counsel for the Americas region as well as the legal business partner for SABIC's specialties strategic business unit. She was also a key member of these leadership teams.

She has also held a variety of senior roles in the legal organization of SABIC in the Americas and with GE Plastics in the United States and India.

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.

5.2.11. Peter Steiner, German citizen

Function at Clariant: Non-executive Member of the Board of Directors
Born: 1959
Year of first election: 2016
Independency: Independent
Experience: CEO; CFO/Audit; M&A; Operational

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 in listed companies:
Mandates according to Article 38 para. 1 lit. a): Two:
— Wienerberger AG, Austria
— Zeal Network SE, Germany

Mandates in unlisted companies:
Mandates according to Article 38 para. 1 lit. b) and c): None.

5.2.12. Claudia Suessmuth Dyckerhoff, German citizen

Function at Clariant: Non-executive Member of the Board of Directors
Born: 1967
Year of first election: 2016
Independency: Independent
Experience: Strategy; Operational; Innovation

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 in listed companies:
Mandates according to Article 38 para. 1 lit. a): Two:
— Roche Holding AG, Switzerland
— Ramsay Health Care (Sydney), Australia

Mandates in unlisted companies:
Mandates according to Article 38 para. 1 lit. b): Two:
— QuEST Global Services Pte. Ltd., Singapore
— Edugreen Education & Services Ltd., Kolkata, India (start-up)

Mandates according to Article 38 para. 1 lit. c): Six:
— 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
— Huma Therapeutics Limited, London, UK
— Kinderhilfe Kambodscha e.V., Aachen, Germany

5.2.13. Susanne Wamsler, US citizen

Function at Clariant: Non-executive Member of the Board of Directors
Born: 1961
Year of first election: 2015
Independency: Independent
Experience: Strategy; Innovation

Professional career: Susanne Wamsler studied at Princeton University in Princeton, New Jersey, USA, graduating with a degree in political economy. From 1984 until 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.

5.2.14. Konstantin Winterstein, German citizen

Function at Clariant: Non-executive Member of the Board of Directors
Born: 1969
Year of first election: 2011
Independency: Independent
Experience: CEO; Operational

Professional career: Konstantin Winterstein studied at the Technical Universities of Darmstadt and Berlin, where he completed a degree in production engineering. In 2004, he received his MBA from INSEAD in Fontainebleau and Singapore. From 1997 until 2014, he held various positions with the BMW Group. Since 2014, he has been a Member of the Management Board of Ringmetall SE 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 in listed companies:
Mandates according to Article 38 para. 1 lit. a): One:
— Ringmetall SE, Germany

Mandates in unlisted companies:
Mandates according to Article 38 para. 1 lit. b): One:
— GFT Holding GmbH, Germany

Mandates according to Article 38 para. 1 lit. c): None.

5.3. 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 are 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, the Vice-Chairman, and the other members. No member of the Board of Directors held a senior management position at Clariant Ltd or any current or former Clariant Group company in the last five years or has any significant business relationship with Clariant Ltd or any other Clariant Group company.

The members of the Board of Directors constitute the following committees:

— Nomination Committee
— Compensation Committee[1]
— Audit Committee
— Innovation and Sustainability 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 Steering 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.

[1] As elected by the Annual General Meeting

BOARD OF DIRECTORS – COMMITTEE RESPONSIBILITIES AND MEETINGS

Member of the Board of Directors	Nomination Committee		Audit Committee		Compensation Committee		Innovation and Sustainability Committee	
Number of meetings in 2022	3	*	9	*	6	*	6	*
Günter von Au	■ since June 2020	3					■ since April 2021	6
Abdullah Mohammed Alissa	since 7 April 2021 ■ until 24 June 2022	3						
Nader Ibrahim Alwehibi					from 7 April 2021 ■ until 24 June 2022	3		
Ahmed M. Al Umar	■ since 24 June 2022	0 **						
Roberto Gualdoni							■ since 24 June 2022	4
Calum MacLean							from 7 April 2021 ■ until 24 June 2022	2
Thilo Mannhardt							■ since 7 April 2021	6
Geoffery Merszei			■ since 16 October 2018	9				
Eveline Saupper			since 2016 ■ until 24 June 2022	7	■ since 16 October 2018	6		
Naveena Shastri					since 24 June 2022	3		
Peter Steiner	■ since 2016	3	■ since 2016	9				
Claudia Suessmuth Dyckerhoff			■ since 24 June 2022	3	■ since 16 October 2018	6		
Susanne Wamsler	■ since 7 April 2021	3					■ since 7 April 2021	6
Konstantin Winterstein			from 2012 until April 2016 ■ and since March 2017	9	■ since 7 April 2021	6		

■ Chairperson
■ Member
* Number of meetings attended in 2022
** no NC meetings since 24 June 2022

The **Nomination Committee** (NC) comprises the Chairman, the Vice-Chairman, and other members of the Board of Directors, as elected by 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, as well as for the position of CEO and for the other members of the Executive Steering Committee, and prepares the corresponding recommendations. The NC considers and submits to the Board of Directors the CEO's proposals concerning candidates for Executive Steering Committee positions. The composition of the Board of Directors as well as of the Executive Steering Committee already fulfills the gender requirements of article 734f of the revised Swiss Code of Obligations (effective 1 January 2023). The NC also reviews, at least annually, the independence of all members of the Board of Directors as well as the membership and structure of its committees and presents its assessment to the Board of Directors for final determination. More information can be found at:
www.clariant.com/committees

The **Compensation Committee** (CoC) comprises at least three 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. The CoC 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 Steering Committee, subject to the approvals of the total compensations by the Annual General Meeting. The CoC also adjusts the development of the compensation structures to changing conditions, as necessary. In this context, the long-term incentive program for the Executive Steering Committee and the senior management team is also aligned with current market and business developments, and corresponding adjustments are made, if required. Furthermore, the CoC reviews fringe benefit regulations and dismissal regulations with the CEO, the CFO and the other members of the Executive Steering Committee and takes note of the planned direct and indirect compensation packages of the Heads of Global Functions reporting to the CEO, 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 Compensation Report 2022, → section 1, and at www.clariant.com/committees.

The **Audit Committee** (AC) comprises two to four members of the Board of Directors, all of whom must be independent and non-executive members of the Board of Directors. A majority of the members of the AC , including the chair, should have financial and accounting experience. The AC meets at least four times a year. The CFO and representatives of the external auditor are invited to Audit Committee meetings. 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 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. The AC will also be responsible for the review of the report on non-financial matters pursuant to article 964c of the revised Swiss Code of Obligations (effective 1 January 2023). Further, 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 Ethics. 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. Furthermore, the heads of Internal Audit and Risk Management, the Group Compliance Officer, and Clariant's General Counsel report on a regular basis to the Audit Committee. More information can be found at:
www.clariant.com/committees

The **Innovation and Sustainability Committee** (ISC) comprises two to four members of the Board of Directors, ideally with professional experience in the domains of technology and innovation management, research and development, and sustainability, including climate risk management.

The ISC acts as an advisory body to the Board of Directors and the Chief Executive Officer (CEO). It supports the Board of Directors and the CEO in matters of innovation and sustainability strategy, climate risk management, growth fields, innovation processes, innovation pipeline, enabling technology platforms, relevant intellectual property, and capability-related decisions. The ISC meets as often as necessary for the company's business or at the request of any of its members, but in any case at least four times per year. The Chair of the ISC reports regularly to the Board of Directors on the activities and findings of the ISC and provides updates on Clariant's Scope 1, 2, and 3 emissions as well as measures implemented to further reduce Clariant's emissions.

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;
— Approving and reviewing 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 2022, the Board of Directors held five meetings in person (three in Switzerland, one in Germany, and one in Saudi Arabia) and seven meetings by video conference/phone. All twelve Board meetings held in 2022 were attended by all members of the Board (resulting in an attendance rate of 100.0%). The company's strategy is reviewed and further developed once a year. Members of the Executive Committee (as of 1 July 2022: the Executive Steering Committee) and the General Counsel are invited to attend the meetings of the Board of Directors. As of 1 July 2022, members of the Executive Leadership Team are also invited to these meetings depending on the agenda topics. The views of external and internal consultants are heard, if necessary, in the case of projects of considerable scope.

Further, in each Board meeting, the Board of Directors receives updates regarding the economy, the environment, and people so that it can review the effectiveness of Clariant's processes and identify and manage its impact in these three areas. The Board also receives monthly reports regarding Clariant's performance, key projects, and DART (Days Away, Restricted, or Transferred) rate. The Board of Directors also directly engages with stakeholders by providing feedback during Board meetings and follows up with stakeholders if questions arose during the Board meeting.

BOARD OF DIRECTORS MEETINGS

Number of meetings in 2022	12	[1]
Directors		
Günter von Au	12	100.0 %
Abdullah Mohammed Alissa until 24 June 2022	7	100.0 %
Ahmed M. Al Umar since 24 June 2022	5	100.0 %
Nader Alwehibi until 24 June 2022	7	100.0 %
Roberto Gualdoni since 24 June 2022	5	100.0 %
Calum MacLean until 24 June 2022	7	100.0 %
Thilo Mannhardt	12	100.0 %
Geoffery Merszei	12	100.0 %
Eveline Saupper	12	100.0 %
Naveena Shastri since 24 June 2022	5	100.0 %
Peter Steiner	12	100.0 %
Claudia Suessmuth Dyckerhoff	12	100.0 %
Susanne Wamsler	12	100.0 %
Konstantin Winterstein	12	100.0 %

[1] Individual attendance rate during term

7.4. Management of the Group

7.4.1. Management of the Group until 30 June 2022

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 was 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), 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 Unit Pigments as a discontinued operation, the six business units (five business units since the closing of the divestment of the Business Unit Pigments on 3 January 2022) were the highest-level operating units within the Group. They had global responsibility for the activities assigned to them, particularly sales, marketing, product management, and production. The business units also had global responsibility for short- and long-term revenue and earnings generated from the operations and assets assigned to them. This included fully exploiting existing business potential, identifying new business opportunities, and pursuing the active management of their products and services portfolio. The business units' activities were complemented and supported by Compliance and global Service Units (e.g., Procurement, Finance, Information Technology, Legal, Human Resources, Communications, and Group Innovation & Sustainability).

7.4.2. Management of the Group since 1 July 2022

The Board of Directors has delegated the executive management of the Clariant Group to the CEO and the other members of the Executive Steering Committee. The Executive Steering 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 Steering 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 Steering 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 Steering Committee is supported by the Executive Leadership Team, consisting of the members of the Executive Steering Committee as well as the heads of global functions appointed by the CEO as permanent members. The role of the Executive Leadership Team is to support the Executive Steering Committee in its decision-making process by promoting dialogue among its members, enabling information to be exchanged, and creating awareness of the Group's environment. The Executive Steering Committee is also 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), 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 Unit Pigments as a discontinued operation, the five 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 Compliance and global Service Units (e.g., Procurement, Finance, Information Technology, Legal, Human Resources, Communications, and Group Innovation & Sustainability).

7.5. Information and control instruments vis-à-vis the Executive Steering Committee

The Board of Directors ensures that it receives sufficient information from the Executive Steering 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 Steering 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 Steering Committee are invited to attend meetings of the Board of Directors to report on the business units under their responsibility;
- The members of the Board of Directors are entitled to request information from members of the Executive Steering Committee or any other Clariant senior manager.

7.6. Board committees

The members of the Board of Directors constitute the following committees:

- Nomination Committee
- Compensation Committee[1]
- Audit Committee
- Innovation and Sustainability Committee

For further information, please refer to → section 7.1 of the Corporate Governance Report.

[1] As elected by the Annual General Meeting

BOARD OF DIRECTORS – COMMITTEE MEETINGS

	Number of meetings	Average duration in h	CEO/CFO invited	Other attendees
Board of Directors	12	2–7	yes	Executive Steering Committee; General Counsel; Chief Human Resources Officer / Chief Technology & Sustainability Officer / Chief Corporate Development Officer in some meetings
Nomination Committee	3	2–4	yes	
Audit Committee	9	3–4	yes	Auditors; Head Internal Audit; Head Corporate Accounting; General Counsel
Compensation Committee	6	1.5–3	yes[1]	Chief Human Resources Officer
Innovation and Sustainability Committee	6	3–5	yes	Chief Technology & Sustainability Officer

[1] Except when discussing the remuneration of the CEO

7.7. Internal Audit

The purpose of Internal Audit is to provide independent, objective assurance and consulting services guided by a philosophy of adding value to improve Clariant. It assists Clariant in accomplishing its objectives by bringing a systematic, disciplined approach to evaluating and improving the effectiveness and efficiency of the organization's governance, risk management, and controls. Internal Audit carries out its audits in accordance with a plan approved by the Audit Committee. Internal Audit prepares reports on the audits it has performed and reports actual or suspected deficiencies and irregularities to the Audit Committee and Management. The Audit Committee regularly reviews the scope, plans, and results of Internal Audit. The Group pursues a risk-oriented approach to auditing and coordinates internal audit activities with the external auditors. The quality of Internal Audit is regularly assessed in accordance with the requirements of The Institute of Internal Auditors (IIA). More information on Clariant's risk management system can be found in →section 14 of the Corporate Governance Report.

8. GROUP MANAGEMENT

8.1. The Executive Steering Committee

The Executive Steering Committee (ESC) replaced the former Executive Committee effective 1 July 2022 and consists of the CEO, the CFO, and three other members, the Business Presidents. The Executive Steering 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 Steering Committee

The Executive Steering Committee comprised the following members:

8.2.1. Conrad Keijzer, Dutch citizen, Chief Executive Officer (CEO) since 1 January 2021 and Member of the Executive Steering Committee

Responsibilities: Group Compliance; Group Legal; Group Human Resources; Group Communications

Conrad Keijzer graduated from the Twente University of Technology with a Master of Science degree in industrial engineering and completed the Advanced Management Program at Harvard Business School, USA.

Prior to joining Clariant, he was CEO at French listed specialty materials company Imerys, where he set the strategic direction for organic growth and profitability improvement. From 2013 to 2018, Conrad Keijzer was an Executive Committee Member at AkzoNobel and CEO of Performance Coatings, its largest division. Previously at AkzoNobel, he had held leadership roles in the Netherlands, Germany, Spain, the United States, and Mexico.

Conrad Keijzer was appointed Chief Executive Officer of Clariant as of 1 January 2021.

Other activities: At the European Chemical Industry Council (Cefic), Conrad Keijzer is a member of the Board and the Executive Committee and Chairman of the Nomination Committee. He also serves on the Board of Directors at the American Chemistry Council (ACC).

8.2.2. Bill Collins, US citizen
Chief Financial Officer (CFO) and Member of the Executive Steering Committee since 1 July 2022

Responsibilities: Global Function Information Technology; Global Function Finance; Global Function Mergers & Acquisitions; Global Function Investor Relations; Global Function Internal Audit (jointly with the Chairman of the Audit Committee)

Bill Collins holds an MBA from Kellogg Graduate School of Management. He has a strong track record in driving performance and large-scale transformation in complex global businesses, including AkzoNobel, Eaton Corporation, and Schneider Electric. In his previous positions, Bill Collins managed relationships with banks, auditors, consultants, and legal advisors. He joins Clariant's Executive Steering Committee from ENGIE, where he served as the North American Chief Executive Officer as well as CFO. Prior to this, he held the position of ENGIE's Group Deputy CFO in Paris.

Bill Collins was appointed Chief Financial Officer (CFO) as of 1 July 2022.

8.2.3. Angela Cackovich, German citizen

Member of the Executive Steering Committee and Business President of the two Business Units Additives and Functional Minerals (as of 1 January 2023 renamed: »Business Unit Adsorbents & Additives«) and the region EMEA since 1 July 2022

Angela Cackovich holds master's degrees in chemical engineering, business administration, as well as in international finance. Angela Cackovich joins Clariant's Executive Steering Committee from tesa, where she was a member of the Executive Board. Previously, she held various management positions with P&L responsibility at Henkel, e.g., Head of Global Building & Construction Business, Head of Adhesives Automotive/Aviation Americas, and Head of Adhesives Automotive/Aviation Europe. Prior to this, she gained significant industry experience in a number of leadership positions at Celanese, Rohm & Haas, Dow Corning, and Hoechst.

Angela Cackovich was appointed Business President as of 1 July 2022.

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 in listed companies: None.
Mandates in unlisted companies:
Mandates according to Article 38 para. 1 lit. b): One:
— Lehmann & Voss & Co. KG

Mandates according to Article 38 para. 1 lit. c): None.

8.2.4. Jens Cuntze, German citizen

Member of the Executive Steering Committee and Business President of the Business Unit Catalysts (as of 1 January 2023 renamed: »Business Unit Catalysts«) and the region APAC since 1 July 2022

Jens Cuntze studied chemistry and holds a diploma and PhD from the Swiss Federal Institute of Technology (ETH Zurich) and an MBA. In 1997, he started his career as a consultant and later Associate Principal at McKinsey, with a focus on the chemical industry. In 2003, Jens Cuntze joined Clariant as Head of Strategic Planning Division Life Science & Electronic Chemicals. He then held several management positions in the business and in corporate functions, e.g., as Head of New Business Development Business Unit Custom Synthesis, Head of Corporate Strategy, Head of Business Line Industrial Applications Business Unit Industrial & Consumer Specialties as well as Vice President and Head of Group Procurement. From 2013 until 2018, he held the positions of Vice President and Head of Business Segment Petrochemical Catalysts (former Süd-Chemie business) as well as Board Member of two global joint ventures. Then he served as Head of Corporate Planning & Strategy at Clariant until June 2022.

Jens Cuntze was appointed Business President as of 1 July 2022.

8.2.5. Christian Vang, Danish citizen

Member of the Executive Steering Committee and Business President of the two Business Units Industrial & Consumer Specialties and Oil and Mining Services (as of 1 January 2023 renamed: »Business Unit Care Chemicals«) and the region Americas since 1 July 2022

Christian Vang holds a bachelor's degree in international business and macroeconomics. He also completed the Executive General Management Program at INSEAD (CEDEP) and holds various executive degrees from institutions such as London Business School, Harvard, and INSEAD. He launched his career at Clariant in 2008 as Head of Region Asia-Pacific for the Pigment & Additive Division based in Singapore. He then became Regional Head of Business Unit Industrial & Consumer Specialties (ICS) based in Shanghai, China, followed by Head of Corporate Planning & Strategy. Before joining Clariant, Christian Vang was Regional Head for Siegwerk Group in Asia-Pacific until 2008. For the 20 years before this, Christian had been assigned by the Hempel Group to various growth regions in EMEA, including Egypt, Eastern Europe, Greece, Malaysia, and Singapore, where he was Group Vice President and Managing Director for Hempel Group in Southeast Asia.

Christian Vang was appointed Business President as of 1 July 2022.

8.2.6. Hans Bohnen, German citizen, Executive Vice President & Chief Operating Officer (COO), Member of the Executive Committee from 12 October 2018 until 30 June 2022

Operational responsibilities: Business Unit Catalysts; Business Unit Industrial & Consumer Specialties; Business Line Biofuels & Derivatives; Group Procurement Services; Group Operational Excellence; and the 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 and development and operations across Europe and North America for Hoechst AG, Celanese AG, and SGL Group.

From 2007 until 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.

8.2.7. Bernd Hoegemann, German citizen, Executive Vice President & Chief Transformation Officer, Member of the Executive Committee from 1 November 2019 until 30 June 2022

Operational responsibilities: Business Unit Functional Minerals; Business Unit Additives; Project Clariant 2021; Divestment of Business Unit Pigments; Corporate Planning & Strategy; Group Innovation & Sustainability; region Asia-Pacific (i.e., India, Southeast Asia & Pacific, Japan, and Greater China).

In 2006, Bernd Hoegemann received his doctorate in economics from the University of Münster, 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.

8.2.8. Stephan Lynen, German citizen, Executive Vice President & Chief Financial Officer (CFO), CFO and Member of the Executive Committee from 1 April 2020 until 30 June 2022

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 the company's headquarters, in Turkey, and in Japan. He led several M&A projects before becoming Head of Group Controlling. From 2013 until 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 assuming the role of global Head of Business Unit Additives in 2016. On 1 April 2020, he was appointed CFO and Member of the Executive Committee of Clariant.

Other activities and functions

While the members of the Executive (Steering) 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 (Steering) Committee undertake other activities or hold consultancy functions or other offices.

8.3. Management contracts with third parties

There are no management contracts with third parties.

8.4. Contractual arrangements for members of the Executive Steering Committee

All members of the Executive Steering Committee hold employment contracts with Clariant International Ltd, the Clariant Group's management company. The contractual provisions are governed by Swiss law. Contracts of the members of the Executive Steering 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 (Steering) Committee of Clariant Ltd can be found in the Compensation Report 2022 and in note 13 of the Financial Statements of Clariant Ltd in the Financial Report 2022.

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, by 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 2024 Annual General Meeting

The Articles of Association do not contain any rules that differ from the standard terms proposed by law. Shareholders holding at least 0.5 % of the share capital may request that an item be included on the agenda at least 45 days prior to the 29th Annual General Meeting on 9 April 2024. Items to be included on the agenda – with regard to the 2023 financial year – must be submitted no later than 23 February 2024. Such requests must be made in writing and 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 2024 Annual General Meeting concerning the financial year 2023, this applies as of 4 April 2024. Shareholders who have been entered into the share register by 3 April 2024 may exercise their right to vote at the Annual General Meeting on 9 April 2024. 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 Steering Committee other than with regard to the Clariant Long-Term Incentive Plan (CLIP): A pro-rata settlement in cash of the vested Performance Share Units will take place on the assumed basis that performance targets had been achieved to 80 %.

12. INFORMATION POLICY

12.1. Notices; Dates

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. 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/March of the following year, respectively. Current publication dates can be found online in English on Clariant's 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 2023 financial year will be published as follows:

— First Quarter Reporting	5 May 2023
— Second Quarter/First Half Year Reporting	28 July 2023
— Third Quarter/Nine Months Reporting	30 October 2023
— Fourth Quarter/Full Year Reporting	29 February 2024

12.2. The Annual General Meeting for the 2023 financial year will take place on the following date

9 April 2024

12.3. Weblinks

12.3.1. Clariant website
www.clariant.com

12.3.2. E-mail distribution list (push system)
www.clariant.com/SubscriptionForm

12.3.3. Ad hoc messages (pull system)
www.clariant.com/AdHocNews

12.3.4. Financial reports
www.clariant.com/Publications

12.3.5. 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 until the Annual General Meeting dated 24 June 2022. KPMG was elected as the new auditor for the financial year 2022 at the Annual General Meeting dated 24 June 2022. The Audit Committee ensures that the position of lead auditor is changed at least every seven years.

13.2. Auditing fees

KPMG received a fee of CHF 3.8 million for auditing the 2022 financial statements, comprising recurring audit services of CHF 3.7 million. (PricewaterhouseCoopers, the former auditor, received a total fee of CHF 4.2 million for auditing the 2021 financial statements.)

13.3. Additional fees

KPMG received a total fee of CHF 0.1 million for additional services in 2022, comprising of tax services of CHF 0.1 million.

(PricewaterhouseCoopers received a total fee of CHF 0.3 million for additional services in 2021.)

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 KPMG should be proposed to the Annual General Meeting for reelection. Criteria applied for the performance assessment of KPMG 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 2022, eight of the nine meetings were held jointly 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 Internal Audit, 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 KPMG exceeding a fee volume of CHF 25 000. These services may include audit and audit-related services as well as tax and other services. KPMG and the Executive Steering 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)

Within the framework of the Enterprise Risk Management Policy, risk assessments are prepared by Business Units, Global Functions, and Corporate Functions 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 Steering Committee. The Executive Steering Committee is responsible for monitoring the risk assessments for relevance and consistency. The Executive Steering 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 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 Steering 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 Steering 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, and Group Procurement, to ensure reliable and compliant supply of raw materials.

Examples of identified risks included in the risk register are:

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. 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-specific risks 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.

Cyber and information security: 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 information security department, state-of-the-art software, and frequent awareness campaigns.

Examples of **emerging risks** included in the risk register are:

Energy price increases and shortages: The Clariant Group requires energy from various sources for use in production facilities with strong reliance on oil, natural gas, and electricity. Costs for natural gas and energy costs in general constitute a relevant proportion of the production and raw material costs. Clariant may not be able to pass on increasing energy costs to its customers in time or at all. In addition, shortages or the unavailability of certain types of energy could interrupt the production processes, especially in Germany, thereby materially and adversely impacting the Group's ability to conduct its business and produce its products.

Geopolitical and macroeconomic risks: Global and regional economic, political, and social conditions and geopolitical tensions could lead to a recession (or »stagflation«) with negative gross domestic product growth. In addition, macroeconomic disruptions can lead to a sudden further increase in inflation, which may be followed by a strong recession. If conditions in the global economy or the key markets in which the Group operates deteriorate, the Group may experience a significant adverse impact, which may be material for the Group's business, financial condition, and/or results of operations.

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CLARIANT

2022

Compensation Report

Greater chemistry

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The Integrated Report consists of five reports that cover important aspects of our business. They can be read in conjunction with each other. Together, the reports provide a full picture of our ability to create long-term value.

This Compensation Report provides information on the governance, principles, policies, and designs of the compensation programs for the Members of the Board of Directors (BoD) as well as the Executive Steering Committee (ESC). In addition, it presents information on the actual compensation provided to Members of the BoD and the ESC for the year 2022.The Compensation Report is aligned to Articles 14 to 16 of the Ordinance against Excessive Pay at Publicly Listed Companies (VegüV), Article 663c of the Swiss Code of Obligations, the SIX Swiss Exchange's Directive on Information Relating to Corporate Governance, and economiesuisse's Swiss Code of Best Practice for Corporate Governance.

Letter to Stakeholders

Dear Stakeholders,

Last year, I started my letter by discussing what a challenging year 2021 was due to the COVID-19 global pandemic. And while we are still feeling the impacts of the pandemic, we are also dealing with the next crisis with Russia's war on Ukraine.

As Clariant's plant in Ukraine is right in the center of the war, production had to be stopped, and the company supported the evacuation of employees from the area to other parts of Ukraine or other countries. I am happy to say that the company was able to offer jobs in other countries to a number of Ukrainian employees. At the same time, and like many other companies, Clariant decided to suspend any business in and with Russia.

2022 Transformation

2022 was also a year of transformation for Clariant. Several M&A projects were concluded or advanced: the completion of the divestment of the Pigments business in January, the sale of the North America Land Oil business with an expected closing in the first quarter of 2023, as well as the completion of the acquisition of the Attapulgite business in the US.

In June, the company announced a new organizational setup and a new leadership structure. The changes include a reduction from five to three business units and a flatter operating model. This is accompanied by a change from the former Executive Committee to an Executive Steering Committee. The new Executive Steering Committee comprises the CEO, the CFO, as well as the three Business Presidents, who have full P&L responsibility for their respective Business Units (BU). In this process, the three members of the former Executive Committee stepped down from their positions.

2022 Performance

Despite the disruptions from the pandemic, the war on Ukraine, and their effects on energy prices and supply chain, Clariant managed to achieve a remarkable financial result. Driven by the strong efforts and dedication of our employees as well as the continued execution of efficiency programs, Clariant achieved significant growth in terms of sales, absolute EBITDA, and cash flow. These results are also reflected in the amounts of variable compensation to the members of the Executive Steering Committee as outlined later in this report.

Compensation Committee Activities

The Compensation Committee met six times during 2022 and held one telephone conference. The activities focused around three main topics:

(1) The restatements of the financial results for the years 2020 and 2021 and the impact on the achievements of the incentive plans, as well as the timing for payout; (2) Clariant's organizational transfor-

mation, the resulting personnel changes, and the required remuneration packages for former and newly appointed EC/ESC members, and (3) the design of the new short-term incentive plans.

In addition, the Compensation Committee performed its regular activities. These included, for instance, the proposal of targets for the 2023 Clariant Long-Term Incentive Plan (CLIP) grant, the proposal of the Group and business unit targets for the 2023 short-term incentive plan for approval by the Board of Directors, as well as the preparation of the Compensation Report and the say-on-pay votes at the Annual General Meeting.

Changes to the Compensation System in the Reporting Year

As announced in the 2021 Compensation Report, Clariant's long-term incentive plan was granted in April 2022 under a new plan design including two ESG-related KPIs (CO_2 emission reduction and Employee Net Promoter Score) with a substantial weighting of 34 % in total, thus strengthening the company's sustainability agenda.

In 2022, the global short-term incentive plans were reviewed and redesigned. The new plans will be effective 1 January 2023, and you will find further details on the new design in this report. The new design places greater emphasis on a pay-for-performance philosophy and continued alignment with the company's strategy. This also leads to another change in the long-term incentive plan for 2023, where EBITDA margin will be replaced with return on invested capital (ROIC), as EBITDA margin is one of the financial KPIs embedded in the new short-term incentive plan. As in the long-term incentive plan, ESG-related metrics are a substantial part of the new short-term incentive plan.

The organizational transformation and the personnel changes at the EC/ESC level were also taken as an opportunity to review the compensation packages for newly appointed ESC members. Based on benchmarks from Mercer, the level and structure of the total compensation were adjusted. While all newly appointed ESC members follow the same compensation mix with a target short-term incentive of 80 % of base salary and a target long-term incentive of 90 % of base salary, the total target compensation differs for each member, taking into account the size and scope of the role as well as the size and global footprint of the business.

Binding/Nonbinding Votes at the 2022 Annual General Meeting

We are happy that stakeholder support for Clariant's compensation philosophy and framework continues to be strong. All motions on compensation were approved by Clariant's stakeholders at the 2022 Annual General Meeting, and the Compensation Report again received a high approval rate in the consultative vote.

However, from the Annual General Meeting as well as from numerous discussions with our stakeholders, we have also received feedback and requests to improve the disclosures regarding the company's compensation system. We are grateful for this feedback and take it seriously. While we are not able to meet all requests brought forward, we have made an effort with a new structure and additional disclosures in this report. We will continue to engage with our stakeholders to ensure that the company's compensation programs are aligned with their interests and aligned to the company's purpose and strategy in an ever-changing environment.

We hope you appreciate the new format and additional information provided.

Eveline Saupper
Chair Compensation Committee

COMPENSATION SUMMARY 2022

Board of Directors

To ensure their independence, members of the Board of Directors (BoD) receive a fixed compensation only, partially provided in cash and partially provided via restricted shares. The restricted shares are blocked for a period of three years.

BOD COMPENSATION STRUCTURE

	Chair	Vice-Chair	Member
Honorarium	450 000	180 000	150 000
Committee fees		Based on individual activities	Based on individual activities
Share-based compensation	300 000	120 000	100 000
Social security contributions	Based on individual situation	Based on individual situation	Based on individual situation

For chairing one of the four committees, BoD members receive a cash payment of CHF 50 000 (CHF 80 000 for chairing the Audit Committee). For regular membership in a committee, BoD members receive a cash payment of CHF 30 000 (CHF 50 000 for the Audit Committee). The chairman is not entitled to committee membership fees.

The following shareholding requirements apply to BoD members:

— Chairman: 30 000 shares
— Vice-Chairman: 15 000 shares
— Member: 12 000 shares

For the mandate year 2021/2022, total compensation for the BoD members was within the approved budget:

Mandate year	Actual	Approved
2022/2023[1]	CHF 4.0m	CHF 5.0m
2021/2022	CHF 4.2m	CHF 5.0m

[1] Estimation, mandate year not yet ended

For the mandate year 2022/2023, the actual total amount of compensation paid out to the BoD members is estimated to amount to CHF 4.0 million, and therefore, the total amount stayed within the amount of CHF 5.0 million approved by the Annual General Meeting (AGM) in 2022.

Executive Steering Committee

The compensation for the ESC comprises the following elements:

— A fixed compensation payable in 12 installments
— A variable cash bonus payable once a year
— A long-term incentive plan settled in shares after a three-year vesting period
— Benefits in line with local practice

ESC COMPENSATION STRUCTURE

	CEO	Paymix	Other ESC members	Paymix
Fixed compensation	1 200 000	30.0 %	500 000 – 600 000	37.0 %
Short-term incentive (STI)	108 % of fixed compensation	32.5 %	80 % of fixed compensation	30.0 %
Long-term incentive (LTI)	125 % of fixed compensation	37.5 %	90 % of fixed compensation	33.0 %
Other benefits[1]	Based on individual situation	Based on individual situation	Based on individual situation	Based on individual situation

[1] Other benefits include pension contributions, social security contributions, and other benefits.

The following shareholding requirements apply to the ESC:

— CEO: 150 000 shares
— Other ESC members: 80 000 shares

For the performance year 2022, total compensation for the ESC was within the approved budget:

Performance year	Actual	Approved
2022	CHF 12.2m	CHF 16.0m
2021	CHF 11.3m	CHF 16.0m

In 2022, there were significant changes to the ESC (former EC). As of 30 June 2022, the three EC members stepped down from their appointments and will leave Clariant as of 30 June 2023. As of July 2022, the following new ESC members were announced:

— Bill Collins, CFO
— Angela Cackovich, Business President Adsorbents & Additives and EMEA
— Jens Cuntze, Business President Catalysts and APAC
— Christian Vang, Business President Care Chemicals and Americas

Despite the personnel changes in the ESC, the aggregate compensation for the ESC for 2022 remains within the amount approved by the AGM.

The total amount paid to members of the ESC in the business year 2022 was CHF 12.2 million, after CHF 11.3 million in the prior year. The increase in the total amount from 2021 to 2022 is mainly driven by two factors:

— The 2022 amount includes the pro-rata payments for the newly appointed ESC members as well as the continued payments to three EC members whose agreements expire mid-2023
— Clariant realized strong operational results in 2022. Sales increased from CHF 4 372 million in 2021 to CHF 5 198 million in 2022, while absolute EBITDA increased by 14 % versus 2021 and Operating Cash Flow by CHF 139 million. The strong operational results is also reflected in higher bonus payouts for 2022 compared to 2021.

COMPENSATION GOVERNANCE

Clariant's Articles of Association, in combination with the Bylaws of the BoD and the Charter of the Compensation Committee (CoC), include regulations on compensation principles and the governance framework for compensation-related decisions. These documents can be found here:

- Articles of Association and Bylaws of the Board of Directors: https://www.clariant.com/en/Company/Corporate-Governance/Articles-of-association
- Charter of the Compensation Committee: https://www.clariant.com/en/Company/Corporate-Governance/Committees
- The Articles of Association include, among others, the following compensation-related items:
  - Stakeholder involvement: Articles 16 and 17 (see → Stakeholder Involvement)
  - Setup and responsibilities of the Compensation Committee: Article 24
  - Compensation principles for the BoD and the ESC: Articles 26 and 27
  - Additional amount payable due to ESC changes: Article 28
  - No grant of loans, credits, or securities to members of the BoD or the ESC: Article 30
  - Principles of performance-based compensation and allocation of shares: Articles 32 to 36
  - Employment contracts of members of the ESC: Article 39

Compensation Committee

The roles and responsibilities of the Compensation Committee are defined in Article 24 of the Articles of Association and Article 3.2.2 of the Bylaws of the BoD, in combination with the Compensation Committee Charter.

According to Article 24 of the Articles of Association, the Compensation Committee comprises at least three members who are elected by the AGM. During the 2022 reporting year, the Compensation Committee comprised four non-executive members of the BoD:

- Until the AGM: Eveline Saupper (Chair), Nader Ibrahim Alwehibi, Claudia Suessmuth Dyckerhoff, and Konstantin Winterstein
- After the AGM: Eveline Saupper (Chair), Naveena Shastri, Claudia Suessmuth Dyckerhoff, and Konstantin Winterstein

The Compensation Committee's main responsibilities are to

- Propose to the BoD the maximum total compensation for the BoD and the ESC to be submitted to the AGM for approval;
- Propose to the BoD the actual compensation to be paid to the BoD and the ESC members (including the performance under the company's short- and long-term incentive plans), subject to the limits approved by the AGM;
- Review and propose to the BoD general compensation policies and programs;
- Propose employment contracts and compensation packages for newly appointed ESC members or any updates to employment contracts and compensation packages of existing ESC members;
- Propose the Compensation Report to the BoD.

The Compensation Committee convenes at least twice a year; however, it is regular practice to hold at least three meetings or more if required. In 2022, the Compensation Committee met six times and held one telephone conference.

In those meetings, among others, the following topics were discussed:

Meeting	Topics
February	– Company performance and resulting payouts/vesting under short- and long-term incentive plans – Target setting for the 2022 performance period for short-term incentive plans – Preparation of resolutions for the AGM
March	– Changes to the long-term incentive plan Compensation packages of ESC members
May	– Impact on short- and long-term incentives for the 2020 and 2021 performance period due to the restatement of the financial statements – Compensation packages of ESC members
July	– Discussion of design principles of the company's new global short-term incentive plans – BoD compensation benchmark
October	– Finalization of KPIs and bonus curves of the new global short-term incentive plans – Changes to the long-term incentive plan
December	– Target setting for the short- and long-term incentive plans for the 2023 performance period – Finalization of plan documents of the new global short-term incentive plans – Compensation Report

The Corporate Secretary acts as Secretary to the Compensation Committee. The Chief Human Resources Officer (CHRO) regularly attends the meetings to share information, present proposals, and consult on relevant compensation related topics. The Chairperson of the Compensation Committee may invite the CEO to attend the Compensation Committee meetings, except when her/his own compensation is discussed or when there are other conflicts of interest.

Where deemed appropriate, external compensation advisors are asked to provide consulting services and asked to join the committee meetings. In 2022, Mercer was asked to provide support for the design of the new short-term incentive plans, provide benchmarking support for the compensation packages of the ESC members, and provide benchmarking support for the BoD compensation. In addition to compensation-related matters, Mercer provides other HR-related consultancy services.

The following table summarizes the authority levels on compensation-related matters:

	CHRO	CoC	BoD	AGM
Compensation policy for ESC members	P	R	A	
(Short-term and long-term) incentive plans	P	R	A	
CEO compensation	P	R	A	
ESC members compensation	P	R	A	
CEO – individual performance goal setting and target achievement (2023 onwards)	P	R	A	
ESC members – individual performance goal setting and target achievement (2023 onwards)	P	R	A	
Shareholding requirements – CEO and other ESC members	P	R	A	
Maximum aggregate compensation for ESC		P	R	A
Compensation policy for Board members	P	R	A	
Board of Directors – maximum aggregate compensation		P	R	A
Compensation Report		P	R	V
Compensation-related changes to Articles of Association		P	R	A

P=Proposes, R=Recommends, A=Approves, V=Consultative Vote

Stakeholder Involvement

According to Articles 16 and 17 of the Articles of Association, the AGM approves the maximum aggregate compensation to be paid to the members of the BoD for the period up to the next AGM. For the members of the ESC, the AGM approves the maximum aggregate amount to be paid for the business year following the AGM. Finally, the Compensation Report is submitted to the AGM for a consultative vote.

Benchmarking

The compensation structure and levels for the BoD as well as the ESC are reviewed against market practice and developments on a periodical basis. The basis for the evaluations are benchmarking information and support from well-known external compensation consultants as well as input from publicly available information such as annual reports, compensation reports, and other compensation disclosures. In 2022, benchmarking data was provided by Mercer. While the peer group may differ for each evaluation, the following principles apply to the peer group setting:

— Listed and globally operating companies,
— A mix of Swiss and international companies from within and outside of the chemical industry,
— All companies of the peer group have a similar size in terms of market capitalization, revenue, and number of employees

In 2022, benchmarks were conducted on the compensation mix and levels for the BoD as well as for the new roles in the ESC. Both benchmarks were based on market data from Mercer.

In 2022, the compensation structure and levels for the BoD members were reviewed with the support of Mercer against a peer group of 27 Swiss companies with a comparable size in terms of market capitalization, revenue, and number of employees. The Compensation Committee will continue to monitor the BoD compensation structures and levels.

PEER GROUP FOR BOD COMPENSATION BENCHMARK 2022

Adecco Group	Emmi AG	SFS Group
ALSO Holding	EMS-Chemie	Siegfried Holding AG
AMS-Osram AG	Flughafen Zurich AG	SIG Group
Bachem Holding	Galenica Sante	Sika Group
Belimo Holding AG	Georg Fischer AG	Stadler Rail
Bucher Industries	Idorsia Ltd.	Tecan Group Ltd.
Daetwyler AG	Logitech SA	Temenos AG
DKSH Holding	Polypeptide Group	The Swatch Group
Dufry AG	Schindler Holding Ltd.	VAT Group

Performance Management

Performance management for the ESC follows the same approach as for all Clariant employees. The performance management cycle starts in November of each year with discussions on objectives for the following business year, including financial KPIs on the Group and BU level, projects, and priorities. In December and January, these targets are cascaded down to managers and employees. These meetings also include the target setting for individual goals for each employee. The Chairman of the Board sets the individual goals for the CEO for the following business year, while the CEO sets the individual goals for the other ESC members.

Under the new performance management process rolled out as of 2023, the progress against the defined goals is measured on a continuous basis. The final performance evaluation takes place in December.

While individual performance so far has not been reflected in Clariant's short-term incentive plans, the new design of the short-term incentive plans, applicable from 2023 onward, does include the element of individual performance as a modifier to the individual STI payout, depending on the results of the individual performance evaluation. Please refer to → Compensation Principles and Structure/Executive Steering Committee/Changes to the Compensation System.

COMPENSATION PRINCIPLES AND STRUCTURES

Board of Directors (BoD)

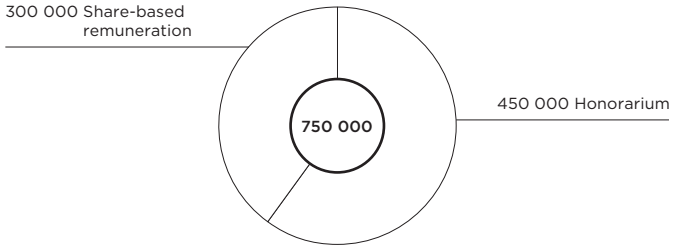
In order to ensure the independence of the BoD members in their supervisory duties, the members receive a fixed compensation only based on their responsibilities and committee memberships. The compensation is partially provided in cash and partially provided via restricted shares to ensure the alignment to stakeholders' interests.

The cash component covers the annual honorarium, and committee membership fees, and is provided retroactively on a quarterly basis, i.e., in March, June, September, and December of each year.

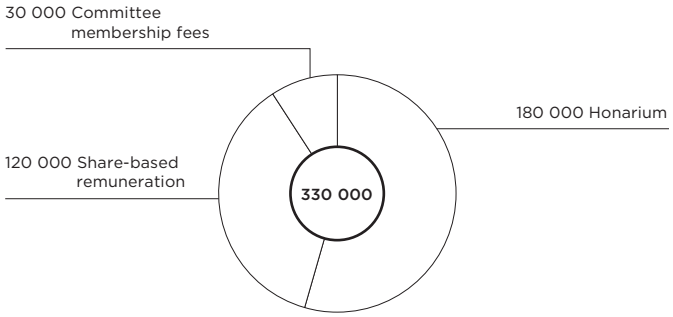
The restricted shares are granted retroactively for the past mandate year on the last trading day four weeks prior to the AGM, based on the average share price of the last ten trading days prior to the grant date. Once granted, the shares are subject to a blocking period of three years, which also remains in place if a BoD member leaves the Board.

The following outlines the structure of the Board of Directors compensation:

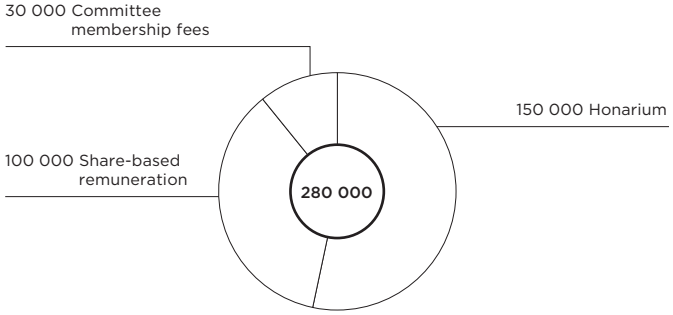
001 **BOD** CHAIR



002 **BOD** VICE-CHAIR



003 **BOD** MEMBER



The assumption for committee fees is a minimum of CHF 30 000.

The Chairman of the Board is not entitled to receive committee fees when serving as a member of a committee. The following table illustrates the fees applicable to committee membership:

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
Innovation and Sustainability Committee	50 000	30 000

The compensation for BoD members is subject to taxation and social security, depending on the individual's situation, with Clariant paying the employer contributions as required. The BoD members do not receive any lump-sum reimbursement of entertainment expenses above and beyond actual expenditure on business trips. All BoD members are asked to build up defined minimum shareholding requirements within three years from becoming a member of the Board. The shareholding 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

All members of the BoD have either reached the required share ownership requirements or are expected to reach the requirements in the given timeline.

Executive Steering Committee

Compensation Principles

Clariant's compensation philosophy is built around six fundamental principles:

004 **COMPENSATION PRINCIPLES**

Alignment with company strategy and stakeholder interests

Compensation components are designed to facilitate the execution of Clariant's business strategy. The design is aligned with the interests of the company's stakeholders.

Competitveness

Clariant conducts regular benchmarking studies to ensure compensation levels are in line with market levels and 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 fair treatment of all employees working for Clariant.

Performance-based pay

Clariant's compensation components incentivize business results as well as individual performance and contributions.

Transparency

Compensation principles, Key Performance Indicators, targets, and target achievements are made transparent to employees.

2022 Structure and Elements

The total compensation structure for the ESC is highly performance- and success-oriented. A mix of fixed compensation, short-term, and long-term incentives ensures an alignment of stakeholder and management interests.

The following table outlines details of the different compensation elements:

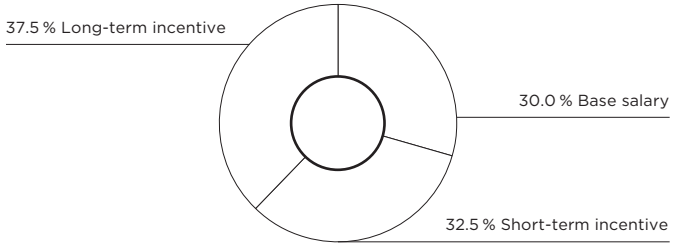
ESC COMPENSATION ELEMENTS

Element	Delivery	Purpose	Criteria	Performance Indicators
Base salary	Monthly, in cash	Attract and retain	Position, responsibilities, experience, and market practice	
Short-term incentive	Annually, in cash	Reward for annual company performance	Annual company performance	Group ROIC, Group OCF, BU Performance (EBITDA, Sales, Cash Flow), Top Priorities (Sustainability, Innovation, Process improvements, Safety)
Long-term incentive	Annually, subject to a three-year vesting period, Performance Share Units, settled in shares	Reward for long-term company performance Align to strategy and stakeholder interest	Company performance over a three-year performance period	2020 and 2021: Relative TSR Economic Profit 2022: Relative TSR EBITDA margin CO_2 reduction eNPS improvement
Benefits	Contributions to pension and other insurances, allowances	Life events support Attract and retain	Local regulations and market practice	

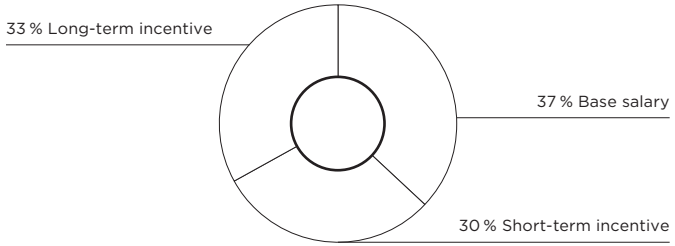
ROIC: Return On Invested Capital, OCF: Operating Cash Flow, EBITDA: Earnings Before Interest, Taxes, Depreciation and Amortization, TSR: Total Shareholder Return, eNPS: Employee Net Promoter Score

The illustrations below show the compensation mix for the CEO and the other ESC members based on target compensation and excluding benefits:

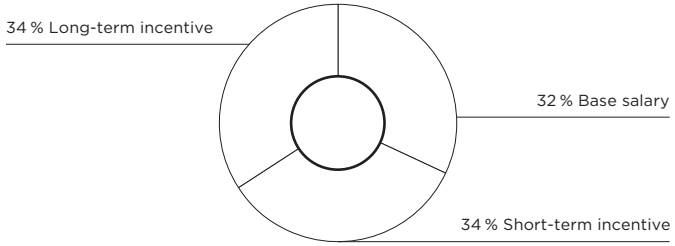
005 **STRUCTURE AND ELEMENTS** CEO



006 **STRUCTURE AND ELEMENTS** ESC MEMBERS (AS OF 01 JULY 2022)



007 **STRUCTURE AND ELEMENTS** EC MEMBERS (UNTIL 30 JUNE 2022)



The new target compensation levels are summarized below:

REMUNERATION STRUCTURE OF THE CLARIANT EXECUTIVE STEERING COMMITTEE[1] IN CHF

	CEO Compensation	as % of base salary	CFO & Business Presidents Compensation	as % of base salary	EC Compensation (for members whose term ended 2022)	as % of base salary
Total annual target	**4 000 000**	**–**	**1 350 000–1 620 000**	**–**	**2 050 000**	**–**
Long-term incentives[2]	1 500 000	125	450 000–540 000	90	700 000	108
[3]	1 300 000	108	400 000–480 000	80	700 000	108
Base salary	1 200 000	100	500 000–600 000	100	650 000	100

[1] Without other benefits

[2] Annual grant volume; Performance Share Units with 3-year vesting and defined performance hurdle; vesting capped at 200 % target achievement

[3] Target cash bonus (GMBP); annual payout capped at 100 % target achievement

Base Salary

The base salary is determined and reviewed on a regular basis taking into account the size, scope, responsibilities, and complexity of the role. In addition, the required experience for the role, individual contributions, as well as market data and market practice in the industry are considered.

Please refer to → Changes to the Compensation System in the Reporting Year for details on changes to the compensation levels and structure for the ESC in 2022 and 2023.

Benefits

Benefits granted to the members of the ESC include employer contributions to the company's pension plans; employer contributions to health, life, disability, and accident insurances, as well as customary allowances such as relocation, car, family, and education allowances. The benefits are granted in alignment with practices in Switzerland.

The ESC members participate in the pension plans of the Clariant Group in Switzerland, notably the Clariant pension fund, with an insured income of up to CHF 200 000 per annum, and the management pension fund, with an insured income of up to an additional CHF 653 200 per annum. The maximum insured income under the pension plans therefore stands at CHF 853 200 per annum.

Clariant's pension plans comply with the legal framework of the Swiss Occupational Pension Scheme Act (BVG), and the maximum contribution will be dynamically aligned in accordance with Article 79c BVG. For ESC members 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.

Short-Term Incentive

As all managers in Clariant, the ESC members are eligible to participate in the annual short-term incentive plan »Global Management Bonus Plan (GMBP)«.

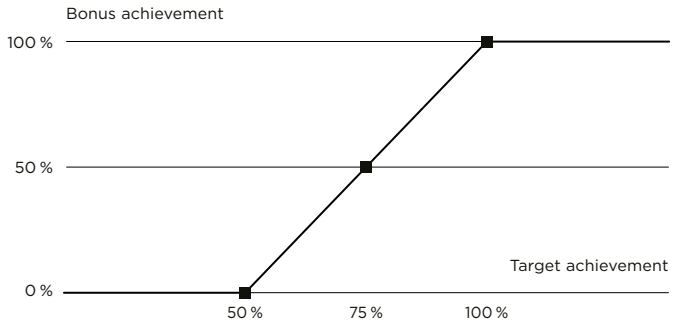
The underlying KPIs for the GMBP were chosen to incentivize employees for Group and business performance, and they were set as top priorities for delivering on the company's strategy and development in a respective business year.

The following table provides an overview of the GMBP applicable to the 2022 business year:

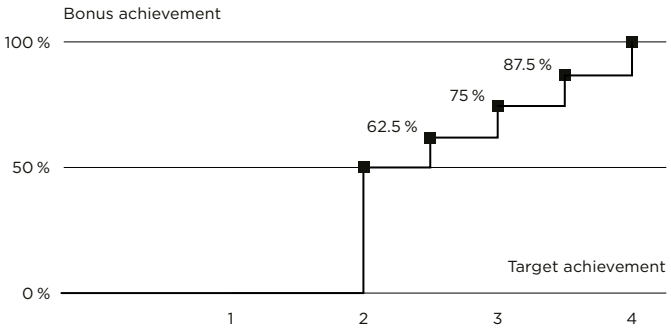
GMBP KPI STRUCTURE

Item	Details	Weighting CEO and CFO	Weighting Business Presidents
KPIs – Group Financial	ROIC	25 %	5 %
	Operating Cash Flow	25 %	5 %
KPIs – BU Performance	Average BU Performance	30 %	
	BU EBITDA		20 %
	BU Cash Flow		30 %
	BU Local Currency Growth		20 %
KPIs – Top Priorities	Scope 3 emission CLNX Benefits Innovation Sales and COMA % DART	20 %	20 %
Performance Period	Business year		
Settlement	Cash		
Grant Value	% of base salary		
Clawback / Malus	Malus		
Payout Levels	0 % to 100 %		

008 **FINANCIAL KPIs**



009 **TOP PRIORITIES**



For each of the KPIs, the company proposes the annual targets and the respective threshold and maximum. The Compensation Committee reviews these targets and provides a recommendation to the BoD for approval.

The development of the company's target proposal follows a well-defined process subject to several rounds of discussions between the ESC and business leaders as well as the BoD. This process ensures that defined targets support the company's financial and growth ambitions and are challenging, yet achievable. The actual targets and achievements for 2022 are disclosed on page 18. The targets for 2023 are not being disclosed, as these are considered commercially sensitive.

The annual evaluation of the achievement of objectives, as well as the allocation of funds for the GMBP, is conducted by the Compensation Committee and approved by the BoD prior to the sign-off of the respective year's financial statements. This system ensures that the bonus payments granted to employees are closely aligned with the Group's overall results.

For the financial KPIs, the target achievements are derived based on a straight line from threshold to cap. The target achievement for the Top Priority KPIs is based on a step approach, requiring the achievement of two Top Priorities to reach the threshold and ending at a cap of 100 % when all four Top Priorities are met.

The payout is a result of the weighted target achievements applied to the target bonus of the respective participant. The payout is capped at 100 % of the target bonus.

Long-Term Incentive

Along with employees in senior management positions, the ESC members are eligible to participate in the Clariant Long-Term Incentive Plan (CLIP). Implemented in 2019, the CLIP was designed to align compensation with long-term stakeholder interests and to have eligible employees drive the company's long-term strategy. In 2022, the CLIP was redesigned to ensure continued alignment with the company's updated strategy and to ensure that the CLIP contributes to an overall attractive and competitive compensation package.

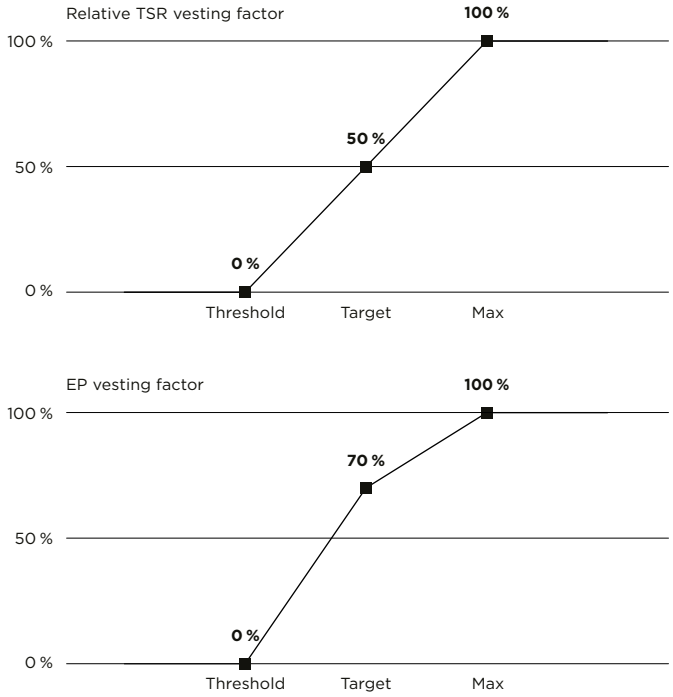
The CLIP represents an equity-based award in the form of Performance Share Units with a three-year vesting period. The CLIP grant per individual is defined as a fixed percentage of the annual base salary. The vesting is conditional upon achievement of defined performance targets, and a vesting will only occur if at least a threshold performance level as defined by the BoD has been achieved. KPIs applied for the CLIP are purely quantitative in nature. For each KPI, the BoD determines a threshold, a target, and a maximum performance level prior to each grant date, and the grant details are communicated to participants accordingly. For the relative total shareholder return (TSR), the target is met if the index performance is met. Threshold and maximum are determined by one standard deviation down and up from the target. For the internal targets, exact actual targets are not being disclosed, as these are considered commercially sensitive.

At vesting and subject to continued employment up to the vesting date, the number of PSUs that vest for a participant is calculated by multiplying the number of the granted PSUs with the overall vesting factor. Under the CLIP 2020 and 2021 design, each PSU is converted into up to one Clariant share. Under the CLIP 2022 design, each PSU is converted up to a maximum of two Clariant shares. The vesting factor for each KPI is determined by the BoD at the end of the vesting period upon proposal of the Compensation Committee. The Compensation Committee may propose adjustments to the vesting factors for each KPI in the event of extraordinary and nonrecurring events during the vesting period (please refer to → Comments on the 2022 Compensation).

CLIP STRUCTURE 2020 AND 2021

Item	Details	Weighting
KPIs	Relative TSR (measured against the MSCI World Chemicals Index) Economic Profit (EP)	50 % 50 %
Vesting Period	3 years	
Delivery	Performance Share Units	
Settlement	Equity	
Grant Value	% of base salary	
# of PSUs	Grant value divided by fair value of PSU	
Clawback / Malus	Malus	
Vesting Levels	0 % to 100 %	

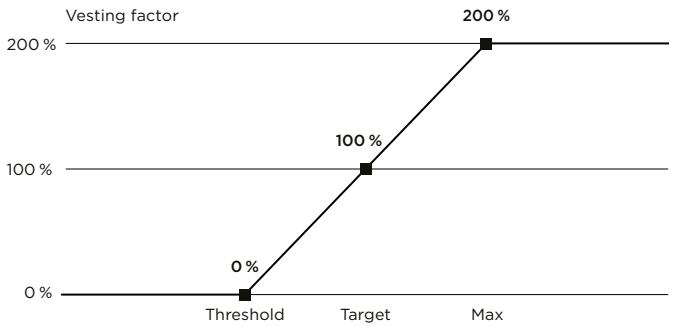
010 **RELATIVE TSR/EP VESTING CURVE**



CLIP STRUCTURE 2022

Item	Details	Weighting
KPIs	Relative TSR (measured against the MSCI World Chemicals Index)	33 %
	EBITDA margin	33 %
	CO_2 (Scope 1+2) reduction	17 %
	Employee Net Promoter Score (eNPS)	17 %
Vesting Period	3 years	
Delivery	Performance Share Units	
Settlement	Equity	
Grant Value	% of base salary	
# of PSUs	Grant value divided by 30-day average share price	
Clawback / Malus	Malus	
Vesting Levels	0 % to 200 %	

011 **VESTING CURVE 2022**



The STI and LTI plans foresee a malus provision, enabling the BoD (in the case of ESC members) or the company (in the case of any other employee) to decide on a reduction of up to a full forfeiture of unvested entitlements in justified and defined cases of misconduct. For 2023, a clawback provision will be added to the plan rules. Please refer to → Changes to the Compensation System.

The procedures upon termination of employment during the vesting period are:

— Retirement: Pro-rata vesting at the regular vesting date based on actual performance
— Disability and death: Immediate pro-rata cash out based on 100 % performance
— Sale of a business, change of control and redundancy: Immediate pro-rata cash out based on 80 % performance
— Voluntary termination and termination for cause: Full forfeiture

The participation in the CLIP is tied to share ownership targets that have to be achieved within five years of the first participation:

— CEO: 150 000 shares
— Other ESC members: 80 000 shares
— Other participants: Up to 30 000 shares, depending on management level

As all current members of the ESC did not yet receive a vesting under the CLIP, they are still building up the share ownership within the allowed timeframe. The previous EC members were in compliance with the share ownership requirements.

Other contractual terms

As per the Articles of Association (Article 39), employment contracts of the ESC members have an indefinite period. The notice period is twelve months followed by a noncompete period of twelve months. The contracts do not allow for any severance packages.

Changes to the Compensation System

This section will outline the changes to the Compensation System for the Executive Steering Committee members that have been implemented in 2022 or will take effect as of 2023.

Paymix

Accompanying the organizational transformation and the newly formed Executive Steering Committee, compensation levels and the paymix for the CFO and the Business Presidents were reviewed and adjusted. Each role was benchmarked against the market taking into account the scope, responsibilities, and experience required, as well as the size of the respective business units (e.g. revenue, FTE). Benchmarks were conducted with the support of Mercer and based on their market data. While the overall compensation package for EC members was already reduced effective January 2021, the benchmark results showed a further need to adjust the compensation levels and the paymix for the new ESC members.

Since July 2022, the base salary for the CFO and the three Business Presidents ranges from CHF 500 000 to CHF 600 000, depending on the indicators as described above. This compares to the identical fixed compensation of CHF 650 000 for EC members whose term ended in 2022. The target short-term incentive amount was reduced from previously 108 % of base salary to 80 % of base salary while the fair market value of long-term incentive entitlements was reduced from 108 % of base salary to 90 % of base salary. With these changes, the total target compensation for the new ESC members ranges from CHF 1 350 000 to CHF 1 620 000, compared to CHF 2 050 000 for EC members whose term ended in 2022.

With the new paymix, the compensation structure continues to focus on variable compensation elements supporting the company's pay-for-performance philosophy. The higher percentage for the long-term incentive plan ensures alignment with the company's long-term strategy and shareholder interests.

2023 Short-Term Incentive

In 2022, new global short-term incentive plans were developed and approved by the BoD for all Clariant employees, including the ESC members. These plans will come into effect as of 1 January 2023.

The new STI design is fully aligned with the company's strategy and targets up to 2025:

— Closer alignment to Clariant's financial strategy and steering: By exchanging ROIC with EBITDA margin and Operating Cash Flow with Free Cash Flow, the new design not only follows market practice, it also strengthens the commitment to the financial targets communicated to stakeholders in November 2021
— Continued strong focus on sustainability: Clariant's commitment to sustainability is supported by the significant increase in the weightings for sustainability-related KPIs compared to the previous design

— Increase pay-for-performance philosophy: The broader range of potential performance outcomes with the possibility to overachieve targets and the upside and downside potential from the individual performance factor increases employee motivation and company performance
— Align to market practice: The selection of KPIs, pay-out curves, and higher cap are closely aligned to market practices as confirmed by external compensation advisors
— Simplification: Fewer KPIs provide for higher transparency and an increased focus on the selected KPIs due to higher weightings

SHORT-TERM INCENTIVE PLAN

	Category	CEO and CFO	Business Presidents
Group Results			
EBITDA margin	Financial	35 %	10 %
Free Cash Flow	Financial	35 %	10 %
CO_2 emission (Scope 3)	ESG	15 %	
DART [1]	ESG	15 %	
Business Unit Results			
BU EBITDA (absolute)	Financial		25 %
BU Cash Flow	Financial		25 %
CO_2 emission (Scope 3)	ESG		15 %
DART [1]	ESG		15 %
TOTAL		**100 %**	**100 %**

[1] Days Away from Work, Job Restriction, or Job Transfer

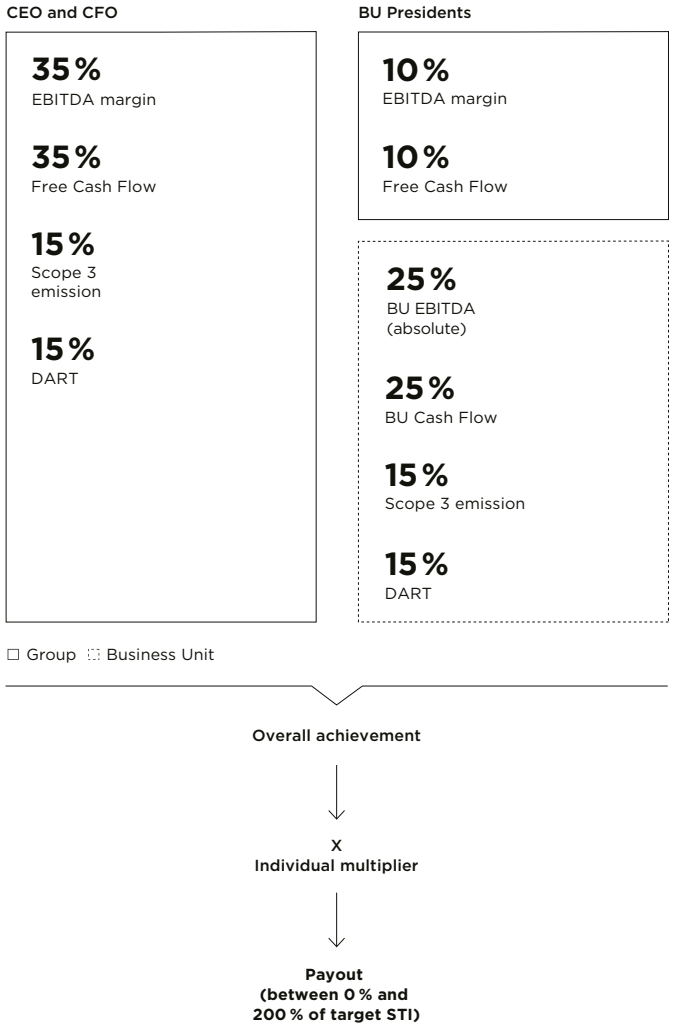
For each KPI, a bonus curve is defined with a target (stretched goal), a threshold (minimum performance required for a payout), and a maximum (maximum performance, payout cap). The payout is determined based on a straight line between threshold and target and target and maximum.

Depending on individual performance and individual contributions toward goals defined and assessed by the BoD, the payout under the short-term incentive plan may decrease or increase in a corridor from 50 % to 150 %. The respective goals and assessment will be outlined in the Compensation Report going forward. In any case, the payout under the short-term incentive plan is capped at 200 % of the individual target bonus.

Except for the individual multiplier, all KPIs are quantitative in nature. They are either directly audited (financial KPIs) or the functionality of the underlying systems are audited (Scope 3 and DART).

The plan design is consistently applied for the ESC members as well as other Clariant employees eligible to participate in the new Clariant Global Bonus Plan (GBP).

012 **KPI STRUCTURE**



In addition to the changes to the overall short-term incentive plan design, the plan rules were strengthened by adding a clawback provision in addition to the already existing malus provision. This enables the BoD or the company to not only decide on a reduction or forfeiture of not yet paid entitlements, but also to claim back already paid entitlements from the plan participants in defined and justified cases of misconduct, e.g., leading to a restatement of financial statements, financial or reputational damage, or in cases of a substantial breach of legal, regulatory, or contractual requirements.

2023 Long-Term Incentive

In order to avoid an overlap with the KPIs for the new short-term incentive plan, the KPIs for the Clariant Long-term Incentive Plan (CLIP) will be adjusted for the 2023 grant. For this grant, ROIC will replace EBITDA margin as a CLIP KPI. The weighting of 33 % will remain.

As with the STI, the LTI plan regulations will be strengthened by the inclusion of a clawback provision in addition to the already existing malus provision.

COMPENSATION 2022 AND SHARE OWNERSHIP

Board of Directors

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 BoD members for the calendar year are disclosed in the following audited table. All amounts are stated in gross amounts.

2022 ANNUAL COMPENSATION – EMOLUMENTS TO MEMBERS OF THE BOARD OF DIRECTORS (FAIR MARKET VALUE = FMV) IN CHF

	Günter von Au	Ahmed Mohammed Al Umar [1]	Roberto Gualdoni [1]	Thilo Mannhardt	Geoffery Merszei	Eveline Saupper	Naveena Shastri [1]	Peter Steiner	Claudia Suessmuth Dyckerhoff	Susanne Wamsler	Konstantin Winterstein	Abdullah Mohammed Alissa [2]	Nader Alwehibi [2]	Calum MacLean [2]	**Totals 2022**
Cash compensation															
Honorarium	450 000	135 000	112 500	150 000	150 000	150 000	112 500	150 000	150 000	150 000	150 000	45 000	37 500	37 500	**1 980 000**
Committee fee	–	22 500	22 500	50 000	40 000	60 000	22 500	110 000	60 000	60 000	70 000	7 500	7 500	7 500	**540 000**
Social security contribution															
Relevant amount	52 562	11 629	–	12 105 [3]	–	25 329	–	–	24 425	25 454	–	13 006	12 764	–	**177 274**
Shares															
Fair Market Value (FMV)	300 000	120 000	100 000	100 000	100 000	100 000	100 000	100 000	100 000	100 000	100 000	–	–	–	**1 320 000**
Total 2022 (Fair Market Value 2022)	**802 562**	**289 129**	**235 000**	**312 105**	**290 000**	**335 329**	**235 000**	**360 000**	**334 425**	**335 454**	**320 000**	**65 506**	**57 764**	**45 000**	**4 017 274**

[1] New Member of the Board since AGM 2022

[2] Member of the Board up to AGM 2022

[3] Incl. additional social security contributions due to inexistent agreement between countries

2021 ANNUAL COMPENSATION – EMOLUMENTS TO MEMBERS OF THE BOARD OF DIRECTORS (FAIR MARKET VALUE = FMV) IN CHF

	Günter von Au [1]	Abdullah Mohammed Alissa	Hariolf Kottmann [2]	Calum MacLean	Geoffery Merszei	Eveline Saupper	Peter Steiner	Claudia Suessmuth Dyckerhoff	Susanne Wamsler	Konstantin Winterstein	Nader Alwehibi	Thilo Mannhardt	**Totals 2021**
Cash compensation													
Honorarium	375 000	180 000	112 500	150 000	150 000	150 000	150 000	150 000	150 000	150 000	150 000	150 000	**2 017 500**
Additional compensation						24 224 [3]							**24 224**
Committee fee	7 500	30 000	– [4]	30 000	40 000	90 000	110 000	30 000	52 500	62 500	22 500	37 500	**512 500**
Social security contribution													
Relevant amount	25 185	20 391	31 151	38 382	13 601	27 171	–	19 605	20 668	–	17 053	168 463 [5]	**381 670**
Shares													
Fair Market Value (FMV)	300 015	120 010	75 000	100 011	100 011	100 011	100 011	100 011	100 011	100 011	100 011	100 011	**1 395 124**
Total 2021 (Fair Market Value 2021)	**707 700**	**350 401**	**218 651**	**318 393**	**303 612**	**391 406**	**360 011**	**299 616**	**323 179**	**312 511**	**289 564**	**455 974**	**4 331 018**

[1] Regular Member of the Board until AGM April 2021; Chairman of the Board from AGM April 2021

[2] Chairman of the Board until 7 April 2021

[3] Extra compensation for temporary additional role as independent Lead Director since 24 July 2019 until 7 April 2021

[4] Not a committee member for the period January-April 2021

[5] Incl. regular social security contributions and tax gross-up due to inexistent tax agreement between the countries

The compensation disclosed in the tables reflects the respective calendar year (January to December), while at the AGM, stakeholders approve the total compensation to the BoD for a mandate year, i.e., for the period between two AGMs (in general April to March). The total compensation amount paid to BoD members for the mandate year 2021/2022 was CHF 4.2 million and, thus, below the amount approved by stakeholders of CHF 5.0 million. For the mandate year 2022/2023, a total compensation amount of CHF 4.0 million is expected, which would be within the limits of the approved amount of CHF 5.0 million for this mandate year. The final total compensation amounts for the mandate year 2022/2023 will be provided in the Compensation Report 2023.

In 2021 and 2022, there were no payments to former BoD members after the mandate year. In both years, no loans or credits were outstanding and/or granted to BoD members, former BoD members or their related parties. No compensation for special duties beyond their regular duties was paid to any BoD member in 2022.

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 2022 [1]	Number of shares granted for 2021 [2]	Number of privately held shares as of 31 Dec. 2022	Number of privately held shares as of 31 Dec. 2021
Günter von Au	16 667	16 817	90 798	73 981
Ahmed Mohammed Al Umar	6 667	–	–	–
Roberto Gualdoni	5 556	–	8 200	–
Thilo Mannhardt	5 556	5 606	9 445	3 839
Geoffery Merszei	5 556	5 606	17 249	11 643
Eveline Saupper	5 556	5 606	35 112	29 506
Naveena Shastri	5 556	–	–	–
Peter Steiner	5 556	5 606	32 612	27 006
Claudia Suessmuth Dyckerhoff	5 556	5 606	30 212	24 606
Susanne Wamsler	5 556	5 606	1 195 904 [3]	1 190 298
Konstantin Winterstein	5 556	5 606	6 097 627	6 092 021
Abdullah Mohammed Alissa	–	6 727	–	12 667
Nader Alwehibi	–	5 606	–	3 839
Calum MacLean	–	5 606	–	11 643
Total	**73 333**	**73 998**	**7 517 159**	**7 481 049**

[1] The BoD mandate year runs from one AGM to the next AGM, which typically takes place in April. The final number of shares for the mandate year that began in 2022 will be defined prior to grant in 2023. The 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 18.00; Final allocation of shares with CHF 17.84; Total amount of shares granted for 2021 based on the assumed share price of CHF 18.00 as shown in the Compensation Report 2021 was 69,473

[3] Thereof 240 271 held by »The Honoré T. Wamsler Trust«

Executive Steering Committee

In 2022 several personnel changes occurred to the Executive Steering Committee (previously the Executive Committee):

	Conrad Keijzer	Hans Bohnen	Bernd Högemann	Stephan Lynen	Bill Collins	Angela Cackovich	Jens Cuntze	Christian Vang
Function	Chief Executive Officer	Chief Operational Officer	Chief Transformational Officer	Chief Financial Officer	Chief Financial Officer	Business President Adsorbents & Additives	Business President Catalysts	Business President Care Chemicals
EC member until		30 June 2022	30 June 2022	30 June 2022				
Contract expires		30 June 2023	30 June 2023	30 June 2023				
ESC member from	1 January 2021				1 July 2022	1 July 2022	1 July 2022	1 July 2022

The contract expiration of the three EC members whose term ended in 2022 follows the contractually agreed 12-month notice period. No severance payments were or will be paid out to them. The handling of STI and LTI entitlements will follow the defined procedures under the respective plan rules and contractual obligations.

In parallel to the personnel changes, the overall compensation levels as well as the compensation mix was adjusted for the newly appointed ESC members. Based on the scope, size, and complexity of the role, each role was benchmarked against market data based on the Mercer Executive Compensation Guide Switzerland and additionally validated against the Mercer Executive Compensation Guide Western Europe. To be able to provide competitive compensation packages and to attract the right candidates for each role, the targeted pay position was defined at around the 75th percentile.

In order to compensate for lost entitlements with previous employers, two ESC members received a cash payment as well as relocation support in 2022. In addition, one ESC member received restricted share units subject to a three year vesting period to compensate for lost LTI entitlements with a previous employer. These amounts are included in the total compensation as shown below.

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. All figures are stated in gross amounts.

2022 ANNUAL COMPENSATION TO MEMBERS OF THE EXECUTIVE STEERING COMMITTEE (FAIR MARKET VALUE = FMV) IN CHF

	Conrad Keijzer	Other ESC members [1]	EC members whose term ended in 2022	**Totals 2022**
Base salary	1 200 000	1 115 000	1 950 000	4 265 000
Cash bonus	1 224 600	864 280	1 648 500 [5]	3 737 380
Share-based incentive (FMV) [2]	1 500 000	– [3]	574 000 [6]	2 074 000
Restricted share units (FMV) [4]	–	262 000	–	262 000
Other benefits [7]	388 458	661 549	848 895	1 898 902
TOTAL	**4 313 058**	**2 902 829**	**5 021 395**	**12 237 282**

[1] Amounts reflect the compensation for the time served as ESC member

[2] Allocation of PSUs based on an 30-day average share price prior to grant on 8 April 2022: CHF 15.95
The conversion from PSU into shares is done after a 3-year vesting period, depending on the achievement factor.

[3] No grant in 2022 for B. Collins and A. Cakovich due to joining only after the grant date; J. Cuntze and C. Vang only became ESC members after the grant date

[4] B. Collins received 14,862 restrcited share units subject to a vesting period of three years as compensation for lost entitlements with previous employer.

[5] The amount includes a pro-rated bonus payout for a departed EC member.

[6] The amount reflects pro-rated entitlements due to the departure of EC members.

[7] »Other benefits« include pension contributions, social security contributions, cash payments to selected ESC members for lost entitlements with previous employers, and other benefits.

2021 ANNUAL COMPENSATION TO MEMBERS OF THE EXECUTIVE COMMITTEE (FAIR MARKET VALUE = FMV) IN CHF

	Conrad Keijzer	Other EC members	**Totals 2021**
Base salary	1 200 000	1 950 000	3 150 000
Cash bonus	1 173 900	1 896 300	3 070 200
Share-based incentive (FMV) [1]	1 500 004	2 100 014	3 600 018
Other benefits [2]	471 154	981 956	1 453 110
Total	**4 345 058**	**6 928 271**	**11 273 329**

[1] Fair Market Value of a PSU under CLIP 2021 grant on 12 April 2021: CHF 13.64 The conversion from PSUs into shares is done after a 3-year vesting period, depending on the achievement factor.

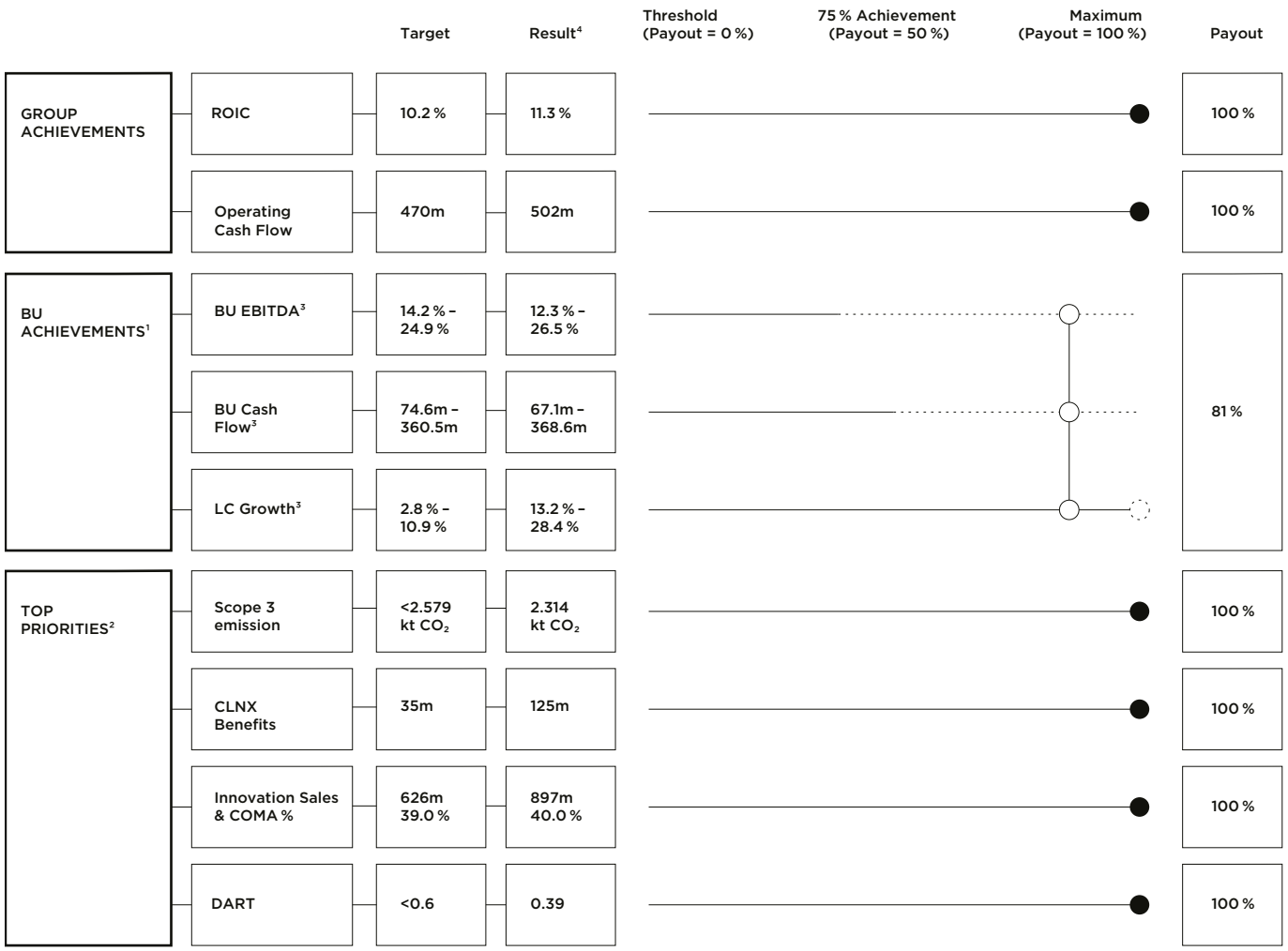
[2] »Other benefits« include pension contributions for current EC members (43 %), social security contributions for current and former EC members (29 %), and other benefits for current and former EC members (28 %).

Comments on the 2022 Compensation

- The total compensation amount of CHF 12.2 million received by the members of the Executive Steering Committee for 2022 is below the limits of the total compensation amount of CHF 16.0 million for 2022 as approved by the stakeholders at the 2021 AGM.
- The newly appointed ESC members did not receive a grant under the CLIP 2022 in their capacity as ESC members. They will only receive PSUs under the next CLIP grant in April 2023.
- The 2022 CLIP grants of the EC members whose term ended in 2022 were prorated up to their contractual end date. The Fair Market Value shown for these three members already considers the pro-rated amount.
- The total compensation of CHF 12.2 million reflects an increase of CHF 0.9 million compared to the total compensation of CHF 11.3 million paid to EC members for the 2021 financial year. The increase is mainly driven by an increased amount of fixed compensation and other benefits due to the additional members of the Executive Steering Committee, as well as higher payouts under the company's short-term incentive plan.
- In line with the strong financial performance in 2022, STI target achievements for BU EBITDA, BU Cash Flow, and LC Growth increased for all business units, resulting in an increased average BU achievement of 90.3 % in 2022, compared to 87.9 % in 2021. The target achievement for Top Priorities increased to 100 % in 2022 (88 % in 2021).
- Target achievements for the two Group financial KPIs ROIC and Operating Cash Flow were determined at 100 % (100 % in 2021). In accordance with Article 33 of the Articles of Association, the Board has the authority to adapt performance targets in extraordinary cases. In 2022, the BoD decided to adjust the achievements under the incentive plans by excluding impairment charges of CHF 453 million for North American Land Oil divestment and the Podari plant as well as the restructuring charge of CHF 39 million for implementation of new operating model.
- Overall, the payout percentage under the short-term incentive plan for the CEO, CFO, and the EC members whose term ended in 2022 increased to 94.2 % for 2022 compared to 90.3 % in 2021. Payout percentages for the Business Presidents under the 2022 short-term incentive plan range from 94.2 % to 100 %.
- The actual 2022 compensation for the CEO represents a paymix of 28 % base salary, 28 % cash bonus, 35 % share-based incentive (FMV) and 9 % other benefits. As none of the other ESC members/EC members served a full period, the disclosure of the actual paymix would not be comparable.
- In 2021 and 2022, no loans or credits were outstanding and/or granted to the CEO, other EC members, former EC members or their related parties, as stipulated in the Articles of Association.

The chart below shows additional details for the Group KPIs used in the short-term incentive plan for the CEO. For each KPI, the chart includes the target performance, achieved performance, and the resulting payout percentage.

013 **2022 STI PERFORMANCE SUMMARY**



● Achievements ○ Average BU Achievements ⬚ BU Performance Range

[1]Excluding BFD [2]Group target [3]Range of targets for the five continuing BUs [4]Figure shows result after adjustments

The actual share ownership of the members of the ESC is shown below. No options were held on 31 December 2021 or on 31 December 2022.

2022 NUMBER OF SHARES HELD BY THE MEMBERS OF THE EXECUTIVE STEERING COMMITTEE

	Number of PSUs/RSUs granted in	Number of PSUs granted in	Number of unvested PSUs/RSUs as of	Number of unvested PSUs/RSUs as of	Number of privately held shares as of	Number of privately held shares as of
	2022 [1]	2021	31 Dec. 2022	31 Dec. 2021	31 Dec. 2022	31 Dec. 2021
Conrad Keijzer	94 044	109 971	204 015	109 971	–	–
Bill Collins [2, 3]	14 862	–	14 862	–	–	–
Angela Cackovich [2]	–	–	–	–	–	–
Jens Cuntze [2]	–	–	–	–	55 940	–
Christian Vang [2]	–	–	–	–	65 799	–
Hans Bohnen [4]	17 964	51 320	114 134	156 737	147 984	131 013
Bernd Hoegemann [4]	17 964	51 320	114 134	125 058	70 623	65 056
Stephan Lynen [4]	–	51 320	–	123 801	101 027	95 913
Total	**144 834**	**263 931**	**447 145**	**515 567**	**441 373**	**291 982**

[1] Performance Share Units represent contingency rights that will be converted into shares, depending on the performance achievement after the 3-year vesting period. Unvested PSUs do not count toward the share ownership requirements.

[2] No grant in 2021 and 2022; only became members of the ESC as of 1 July 2022 after the CLIP grant 2022

[3] B. Collins received 14,862 restrcited share units subject to a vesting period of three years as compensation for lost entitlements with previous employer.

[4] Amounts reflect pro-rated entitlements or forfeitures due to the departure of EC members.

Report of the Statutory Auditor

To the General Meeting of Clariant AG, Muttenz

Report on the Audit of the Compensation Report

Opinion
We have audited the Compensation Report of Clariant AG (the Company) for the year ended 31 December 2022. The audit was limited to the information on remuneration, loans and advances pursuant to Art. 14-16 of the Ordinance against Excessive Remuneration in Listed Companies Limited by Shares (Verordnung gegen übermässige Vergütungen bei börsenkotierten Aktiengesellschaften, VegüV) contained in the tables “2022 Annual compensation – Emoluments to members of the Board of Directors” and “2022 Annual compensation to members of the Executive Steering Committee” of the compensation report.

In our opinion, the information on remuneration, loans and advances in the attached Compensation Report complies with Swiss law and Art. 14-16 VegüV.

Basis for Opinion
We conducted our audit in accordance with Swiss law and Swiss Standards on Auditing (SA-CH). Our responsibilities under those provisions and standards are further described in the “Auditor’s Responsibilities for the Audit of the Compensation Report” section of our report. We are independent of the Company 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.

Other Matter
The Compensation Report of the Company for the year ended 31 December 2021 was audited by another auditor who expressed an unmodified opinion on this Report on 18 May 2022.

Other Information
The Board of Directors is responsible for the other information. The other information comprises the information included in the annual report, but does not include the tables “2022 Annual compensation – Emoluments to members of the Board of Directors” and “2022 Annual compensation to members of the Executive Committee” in the Compensation Report, the consolidated financial statements, the financial statements, the review on performance, people and planet and our auditor’s reports thereon.

Our opinion on the Compensation Report does not cover the other information and we do not express any form of assurance conclusion thereon.

In connection with our audit of the Compensation Report, our responsibility is to read the other information and, in doing so, consider whether the other information is materially inconsistent with the audited financial information in the Compensation Report 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.

Board of Directors' Responsibilities for the Compensation Report
The Board of Directors is responsible for the preparation of a Compensation Report 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 a Compensation Report that is free from material misstatement, whether due to fraud or error. The Board of Directors is also responsible for designing the remuneration system and defining individual remuneration packages.

Auditor’s Responsibilities for the Audit of the Compensation Report
Our objectives are to obtain reasonable assurance about whether the information on remuneration, loans and advances pursuant to Art. 14-16 VegüV is 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 SA-CH 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 this Compensation Report.

As part of an audit in accordance with Swiss law and SA-CH, we exercise professional judgment and maintain professional scepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement in the Compensation Report, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made.

We communicate with the Board of Directors or its relevant committee regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

We also provide the Board of Directors or its relevant committee with a statement that we have complied with relevant ethical requirements regarding independence, and to communicate with them all relationships and other matters that may reasonably be thought to bear on our independence, and where applicable, actions taken to eliminate threats or safeguards applied.

KPMG AG

Martin Rohrbach
Licensed Audit Expert
Auditor in Charge

Cyrill Kaufmann
Licensed Audit Expert

Basel, 1 March 2023

Enclosure:
- Compensation Report

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Switzerland

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Credits
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CLARIANT

2022

Financial Report

Greater chemistry

Consolidated balance sheets

Assets

CONSOLIDATED BALANCE SHEETS

at 31 December 2022 and 2021	Notes[1]	**31.12.2022** in CHF m	in %	31.12.2021 in CHF m	in %
Assets					
Non-current assets					
Property, plant and equipment	5	1 549		1 790	
Right-of-use assets	7	240		281	
Intangible assets	6	997		1 280	
Investments in associates and joint ventures	8	327		211	
Financial assets	9	225		198	
Prepaid pension assets	20	61		76	
Deferred tax assets	10	120		163	
Total non-current assets		**3 519**	**56.9**	**3 999**	**56.8**
Current assets					
Inventories	11	796		691	
Trade receivables	12	725		729	
Other current assets	13	326		316	
Current income tax receivables		54		48	
Short-term deposits	14	324		12	
Cash and cash equivalents	15	394		415	
Total current assets		**2 619**	**42.3**	**2 211**	**31.4**
Assets held for sale	25	**50**	**0.8**	**828**	**11.8**
Total assets		**6 188**	**100.0**	**7 038**	**100.0**

[1] The notes form an integral part of the consolidated financial statements.

Consolidated balance sheets

Equity and liabilities

CONSOLIDATED BALANCE SHEETS

at 31 December 2022 and 2021

	Notes[1]	**31.12.2022** in CHF m	in %	31.12.2021 in CHF m	in %
Equity and liabilities					
Equity					
Share capital	17	863		996	
Treasury shares (par value)	17	–8		–8	
Other reserves		–1 165		–1 140	
Retained earnings		2 651		2 510	
Total capital and reserves attributable to Clariant shareholders		**2 341**		**2 358**	
Non-controlling interests		172		186	
Total equity		**2 513**	**40.6**	**2 544**	**36.1**
Liabilities					
Non-current liabilities					
Financial debts	18	870		958	
Deferred tax liabilities	10	27		30	
Retirement benefit obligations	20	488		593	
Non-current lease liabilities	7	195		233	
Other liabilities	22	55		58	
Provision for non-current liabilities	21	178		152	
Total non-current liabilities		**1 813**	**29.3**	**2 024**	**28.8**
Current liabilities					
Trade payables and other liabilities	22	1 009		985	
Financial debts	23	355		709	
Current income tax liabilities		233		257	
Current lease liabilities	7	44		49	
Provision for current liabilities	21	215		223	
Total current liabilities		**1 856**	**30.0**	**2 223**	**31.6**
Liabilities directly associated with assets held for sale	25	**6**	**0.1**	**247**	**3.5**
Total liabilities		**3 675**	**59.4**	**4 494**	**63.9**
Total equity and liabilities		**6 188**	**100.0**	**7 038**	**100.0**

[1] The notes form an integral part of the consolidated financial statements.

Consolidated income statements

CONSOLIDATED INCOME STATEMENTS

for the years ended 31 December 2022 and 2021

	Notes[1]	2022 in CHF m	2022 in %	2021 in CHF m	2021 in %
Sales	24	5 198	100.0	4 372	100.0
Costs of goods sold		–4 173		–3 077	
Gross profit		**1 025**	**19.7**	**1 295**	**29.6**
Selling, general and administrative costs		–834		–741	
Research and development costs		–160		–155	
Income from associates and joint ventures	24	41		41	
Operating income		**72**	**1.4**	**440**	**10.1**
Finance income	28	18		24	
Finance costs	28	–84		–70	
Income before taxes		**6**	**0.1**	**394**	**9.0**
Taxes	10	–107		–102	
Net result from continuing operations		**–101**	**–1.9**	**292**	**6.7**
Attributable to:					
Shareholders of Clariant Ltd		–133		267	
Non-controlling interests		32		25	
Net result from discontinued operations	25	**217**		**81**	
Attributable to:					
Shareholders of Clariant Ltd		217		77	
Non-controlling interests		—		4	
Net income		**116**		**373**	
Attributable to:					
Shareholders of Clariant Ltd		84		344	
Non-controlling interests		32		29	
Basic earnings per share attributable to the shareholders of Clariant Ltd (CHF/share)					
Continuing operations	29	–0.40		0.81	
Discontinued operations	29	0.66		0.23	
Total		**0.26**		**1.04**	
Diluted earnings per share attributable to the shareholders of Clariant Ltd (CHF/share)					
Continuing operations	29	–0.40		0.81	
Discontinued operations	29	0.66		0.23	
Total		**0.26**		**1.04**	

[1] The notes form an integral part of the consolidated financial statements.

Consolidated statements of comprehensive income

CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME

for the years ended 31 December 2022 and 2021

	Notes[1]	**2022** in CHF m	2021 in CHF m
Net income		**116**	**373**
Other comprehensive income:			
Remeasurements:		73	14
thereof: Actuarial gain/loss on retirement benefit obligations	20	*486*	*28*
thereof: Return on retirement benefit plan assets, excluding amount included in interest expense	20	*–355*	*152*
thereof: Limitation on recognition of net pension assets	20	*–58*	*–166*
Fair value adjustment on financial assets	9	–4	2
Total items that will not be reclassified subsequently to the income statement, gross		**69**	**16**
Deferred tax effect	10	–22	–7
Total items that will not be reclassified subsequently to the income statement, net		**47**	**9**
Net investment hedge	30	20	22
Cash flow hedge		–4	—
Currency translation differences		–133	–57
Share in other comprehensive income of associates and joint ventures	8	9	2
Effect of the reclassification of foreign exchange differences on previously held net investments in foreign entities		76	–4
Total items that may be reclassified subsequently to the income statement, gross		**–32**	**–37**
Deferred tax effect		—	—
Total items that may be reclassified subsequently to the income statement, net		**–32**	**–37**
Other comprehensive income for the period, net of tax		**15**	**–28**
Total comprehensive income for the period		**131**	**345**
Attributable to:			
Shareholders of Clariant Ltd		115	315
Non-controlling interests		16	30
Total comprehensive income for the period		**131**	**345**
Total comprehensive income attributable to shareholders of Clariant Ltd arising from:			
Continuing operations		–178	218
Discontinued operations		293	97
Total comprehensive income attributable to shareholders of Clariant Ltd		**115**	**315**

[1] The notes form an integral part of the consolidated financial statements.

Consolidated statements of changes in equity

CONSOLIDATED STATEMENTS OF CHANGES IN EQUITY in CHF m

at 31 December 2022 and 2021

			Other reserves							
	Total share capital	Treasury shares (par value)	Share premium reserves	Hedging reserves	Cumulative translation reserves	Total other reserves	Retained earnings	Total attribuable to equity holders	Non-controlling interests	Total equity
Balance 1 January 2021	**1 228**	**–9**	**259**	**1**	**–1 360**	**–1 100**	**2 158**	**2 277**	**139**	**2 416**
Net income						—	344	344	29	373
Net investment hedge					22	22		22		22
Remeasurements							14	14		14
Fair value adjustment on financial assets (see note 9)							2	2		2
Deferred tax on remeasurements and fair value adjustment (see note 10)						—	–7	–7		–7
Currency translation differences					–58	–58		–58	1	–57
Share in other comprehensive income of associates and joint ventures (see note 8)						—	2	2		2
Effect of the reclassification of foreign exchange differences on previously held net investments in foreign entities					–4	–4		–4		–4
Total comprehensive income for the period	**—**	**—**	**—**	**—**	**–40**	**–40**	**355**	**315**	**30**	**345**
Distributions from share capital	–232	2				—		–230		–230
Dividends to non-controlling interests						—		—	–28	–28
Effect of business combination (see note 26)						—		—	46	46
Transaction with non-controlling interests						—		—	–1	–1
Employee share scheme:										
Effect of employee services						—	4	4		4
Treasury share transactions		–1				—	–7	–8		–8
Balance 31 December 2021	**996**	**–8**	**259**	**1**	**–1 400**	**–1 140**	**2 510**	**2 358**	**186**	**2 544**
Balance 1 January 2022	**996**	**–8**	**259**	**1**	**–1 400**	**–1 140**	**2 510**	**2 358**	**186**	**2 544**

CONSOLIDATED STATEMENTS OF CHANGES IN EQUITY in CHF m

at 31 December 2022 and 2021

			Other reserves							
	Total share capital	Treasury shares (par value)	Share premium reserves	Hedging reserves	Cumulative translation reserves	Total other reserves	Retained earnings	Total attributable to equity holders	Non-controlling interests	Total equity
Net income						—	84	84	32	116
Cash flow hedge				–4		–4		–4		–4
Net investment hedge					20	20		20		20
Remeasurements							73	73		73
Fair value adjustment on financial assets (see note 9)							-4	-4		-4
Deferred tax on remeasurements and fair value adjustment (see note 10)						—	–22	–22		–22
Currency translation differences					–117	–117		–117	–16	–133
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					76	76		76		76
Total comprehensive income for the period	**—**	**—**	**—**	**–4**	**–21**	**–25**	**140**	**115**	**16**	**131**
Reduction in share capital	–133	1				—		–132		–132
Dividends to non-controlling interests						—		—	–21	–21
Effect of Disposal						—		—	–9	–9
Employee share scheme:										
Effect of employee services						—	2	2		2
Treasury share transactions		–1				—	–1	–2		–2
Balance 31 December 2022	**863**	**–8**	**259**	**–3**	**–1 421**	**–1 165**	**2 651**	**2 341**	**172**	**2 513**

The notes form an integral part of the consolidated financial statements.

Consolidated statements of cash flows

CONSOLIDATED STATEMENTS OF CASH FLOWS

for the years ended 31 December 2022 and 2021	Notes[1]	**2022** in CHF m	2021 in CHF m
Net income		**116**	**373**
Reversal of non-cash income and expenses	16	641	391
Dividends received from associates and joint ventures	8	40	44
Payments for restructuring	27	–32	–38
Cash flow before changes in net working capital and provisions		**765**	**770**
Changes in net working capital and provisions	16	–143	–305
Cash generated from operating activities		**622**	**465**
Income taxes paid		–120	–102
Net cash generated from operating activities		**502**	**363**
Cash flows from investing activities:			
Investments in property, plant and equipment	5	–209	–357
Investments in intangible assets	6	–3	–3
Investments in financial assets, associates and joint ventures	9	–1	–5
Changes in current financial assets and short-term deposits		–302	254
Sale of property, plant and equipment and intangible assets		9	57
Business combinations	26	–64	–91
Proceeds from the disposal of associates, joint ventures and financial assets	8	131	2
Proceeds from the disposal of discontinued operations	25	579	—
Net cash provided by/used in investing activities		**140**	**–143**
Cash flows from financing activities:			
Purchase of treasury shares		–8	–16
Distribution to the shareholders of Clariant Ltd	17	–132	–230
Dividends paid to non-controlling interests		–21	–28
Proceeds/payments associated with transactions with non-controlling interests		—	–1
Proceeds from financial debts		204	337
Repayments of financial debts		–602	–499
Repayments of lease liabilities	7	–53	–59
Interest paid		–43	–51
Interest paid for leases	7	–11	–11
Interest received		14	20
Net cash used in financing activities		**–652**	**–538**
Currency translation effect on cash and cash equivalents		–11	–4
Net change in cash and cash equivalents		**–21**	**–322**
Cash and cash equivalents at the beginning of the period	15	**415**	**737**
Cash and cash equivalents at the end of the period	15	**394**	**415**

[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 1 March 2023. They will be subject to approval by the Annual General Meeting of Shareholders scheduled for 4 April 2023.

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 IFRS requires the use of certain critical accounting estimates. It also requires Management to exercise its judgment in the process of applying 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 and disclosure of assets and liabilities as assets held for sale in accordance with IFRS 5, Non-current Assets held for sale and Discontinued operations

Following the decision of the Board of Directors to dispose of the Business Unit Pigments in June 2019, it was reclassified to discontinued operations in 2019 and is therefore presented separately in accordance with IFRS 5. Assets and liabilities pertaining to the Pigments discontinued operations are presented as »assets held for sale« and as »liabilities directly associated with assets held for sale« in the balance sheet of 2021 as required by IFRS 5.

The Business Unit Pigments was sold on 3 January 2022. See also note 25.

On 31 August 2022, Clariant and Global Amines Company Pte Ltd, a 50/50 joint venture owned by Clariant and Wilmar, signed an agreement to divest Clariant's Quats business to Global Amines. The closing of the transaction is expected in the first half of 2023. As a consequence, the assets and liabilities of Clariant's Quats business (part of Business Area Care Chemicals) were reclassified to »assets held for sale« and »liabilities directly attributed to assets held for sale« in the balance sheet of 31 December 2022. See also note 25.

On 14 April 2022, Clariant completed the sale of its 50 % stake in the joint venture, which owns Scientific Design Company. This investment was reported as «Assets held for sale» in 2021. See also note 25.

On 27 October 2022, Clariant and Dorf Ketal entered into an agreement for Dorf Ketal to acquire Clariant's North American Land Oil business. The transaction is expected to be closed during the first half of 2023. Therefore, the assets and liabilities pertaining to that business were presented separately in accordance with IFRS 5 as «assets held for sale» and «liabilities directly attributed to assets held for sale» in the 2022 balance sheet. See also note 25.

1.04 – Standards, interpretations, and amendments effective in 2022

The Group has applied the following amendments to IFRS issued in 2022 by the International Accounting Standards Board (IASB):

- Amendments to IFRS 3 *Reference to the Conceptual Framework*;
- Amendments to IAS 16 Property, Plant and Equipment – Proceeds before Intended Use;
- Amendments to IAS 37 Onerous Contracts – Costs of Fulfilling a Contract;
- Annual Improvements to IFRS Accounting Standards 2018–2020 Cycle.

The adoption of the amendments did not have any significant impact on the amounts recognized in the reporting period or prior periods and are not expected to significantly affect future periods.

1.05 – Standards, interpretations, and amendments not yet effective

Certain new and amended accounting standards and interpretations that have been published are not mandatory for the reporting period ended on 31 December 2022 and have not been adopted early by the Group. These standards and interpretations are not expected to have a material impact on the entity in the current or future reporting periods or 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 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. Investments in joint arrangements are classified either as joint operations or as 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 noncontrolling 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 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 when 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 revenue associated with such advance payment transactions are recognized upon delivery and transfer of title, ownership, and risk of loss of the related products to the customer.

1.09 – Recognition of revenue 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 on 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 from the translation of the net investment in foreign entities and from borrowings and other cur-

rency 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 holds an interest in a subsidiary that includes translation differences on a foreign operation, while retaining control of 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 those 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 that have been in use for several decades, there is no active market that 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 based on an index at the commencement day 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 the duration of the lease contract, including contractually agreed upon optional extension periods whose exercise is 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 5 000 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 in accordance with the requirements of IFRS 3, Business Combinations, and IAS 38, Intangible Assets. 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.

REACH costs were capitalized until the end of 2020 and depreciated over a period of 12 years. As of 2021, REACH costs are expensed as incurred.

1.14 – Impairment of assets

Assets that are subject to amortization and depreciation are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount may not be recoverable. If any such indication exists, the recoverable amount of the asset is estimated to determine the extent of the impairment loss (if any). Goodwill, intangible assets with an indefinite useful life and intangible assets not yet available for use are tested for impairment annually. Recoverable amount is the higher of fair value less costs of disposal and value in use.

In assessing value in use, the estimated future cash flows are discounted to their present value using a pre-tax discount rate that reflects current market assessments of the time value of money and the risks specific to the asset for which the estimates of future cash flows have not been adjusted.

If the recoverable amount of an asset is estimated to be less than its carrying amount, the carrying amount of the asset is reduced to its recoverable amount and an impairment loss is recognised immediately in income statement (see also note 5).

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, in accordance with 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 approximate 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. Unsalable 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, 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 consideration 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.

The Group applies the IFRS 9 simplified approach to measure 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.

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 in 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 or 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 determining 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 in accordance with 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 healthcare 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 healthcare 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) that 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) that 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 in accordance with the requirements of IAS 37, Provisions, Contingent Liabilities, and Contingent Assets.

1.24 – Research and development

Considering the uncertainties inherent in the development of new key products, Clariant does not capitalize the associated development costs as the criteria set up by IAS 38 Intangible Assets for capitalization are not met. 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 Leadership Team.

After the sale of the Business Unit Masterbatches in 2020, Clariant had six business units (BUs). These included the Business Unit Pigments, which was reclassified to Discontinued Operations on 30 June 2019 and sold on 3 January 2022.

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)

These five business units were grouped into business areas in such a way 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 is a pillar of Clariant's efforts to be 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 experiences 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 low cyclicality. 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, and construction, driven by the fast-growing economies.

Discontinued operations comprise the business unit Pigments (in 2021).

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 that 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 that 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, as well as 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. Interest income, interest expense, and taxes are not allocated to the segments.

The Executive Steering Committee assesses the performance of the operating segments based on income statement parameters like third-party sales, EBITDA, operating result, and cash flow. 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 from 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, that 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 2.60 per share (2021: CHF 3.00 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.

Financial debt is 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 or 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 or loss.

Purchases and sales of financial assets are recognized on the 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.

2. ENTERPRISE RISK MANAGEMENT IDENTIFICATION, ASSESSMENT, AND MANAGEMENT

In the framework of the Enterprise Risk Management Policy, risk assessments are prepared by business units, global functions and corporate functions 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 Steering Committee.

The Executive Steering Committee is responsible for monitoring the risk assessments for relevance and consistency. The Executive Steering 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 Steering 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 to be taken to manage the risk.

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 Steering Committee, the Audit Committee, and the Board of Directors for review.

In the event of new or changed risks, reporting is accelerated and a regular follow-up on mitigation measures is implemented. 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 emerging 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) and 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.

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 – Cyber and information security

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. Clariant is responding to the increased cyber risk with a reinforced information security department, state-of-the-art software, and frequent awareness campaigns.

Examples of emerging risks included in the risk register:

Geopolitical and macroeconomic development

The achievement of corporate targets depends on global economic and political developments, which are continuously monitored in all markets. Economic uncertainty has increased, and the growth of the global economy could be lower than expected due to geopolitical tensions and/or global recession. Clariant is responding to the adverse economic environment with various performance programs addressing both cost and revenues.

Energy price increases and shortages

The Clariant Group requires energy from various sources for use in production facilities with strong reliance on oil, natural gas, and electricity. Costs for natural gas and energy in general constitute a relevant proportion of the production and raw material costs. Clariant may not be able to pass on increasing energy costs to its customers in time or at all. In addition, shortages or the unavailability of certain types of energy could interrupt the production processes, especially in Germany, thereby materially and adversely impacting the Group's ability to conduct its business and to produce its products. Clariant is closely monitoring the situation to secure supply, mitigate price increases, and strictly manage margins.

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, as well as 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, nonderivative 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 Steering 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 and credit risk for the use of derivative financial instruments and non-derivative financial instruments, as well as written principles for the investment of 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, 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 are allowed to use 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 30.

— **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 2022, if the euro had strengthened/weakened by 8% (2021: 4%) against the Swiss franc with all other variables held constant, pretax profit for the year would have been CHF 15 million lower/higher (2021: CHF 22 million lower/higher), mainly as a result of foreign exchange gains/losses on the translation of the euro-denominated financing, cash and cash equivalents, intragroup financing, and third-party trade receivables and payables. Equity would have been CHF 85 million higher/lower (2021: CHF 42 million higher/lower), 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 2022, if the US dollar had strengthened/weakened by 10% (2021: 6%) against the Swiss franc with all other variables held constant, pretax profit for the year would have been CHF 2 million higher/lower (2021: CHF 13 million higher/lower), mainly as a result of foreign exchange gains/losses on the translation of US dollar-denominated cash and cash equivalents, intragroup financing, and trade receivables. Equity would have been CHF 76 million higher/lower (2021: CHF 60 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 of 31 December 2022 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 2022, the group had a net exposure on asset side, as a result of higher cash than financial debt issued at variable 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 or 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 2022 and end of 2021). At 31 December 2022, if the CHF interest rates on net current financial debt, including certificates of indebtedness with variable interest rates after 12 months, had been 1 basis point higher/lower with all other variables held constant, pretax profit for the year would have been CHF 1.21 million higher/lower (2021: CHF 0.00 million higher/lower for a CHF interest rate shift of 1 basis point).

At 31 December 2022, if the USD interest rates on net current financial debt issued, including certificates of indebtedness with variable interest rates after 12 months, had been 1 basis point higher/lower with all other variables held constant, pretax profit for the year would have been CHF 0.16 million lower/higher (2021: CHF 0.15 million lower/higher for a USD interest rate shift of 1 basis point). At 31 December 2022, if the EUR interest rates on net current financial debt issued, including certificates of indebtedness with variable interest rates after 12 months, had been 1 basis point higher/lower with all other variables held constant, pretax profit for the year would have been CHF 1.70 million higher/lower (2021: CHF 5.09 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 of 31 December 2022 and 2021, the Group was not exposed to other price risks in the sense of IFRS 7, Financial Instruments: Disclosures, except for the one related to small scale participations in companies. Please refer to note 9.

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 of 31 December 2022, the Group had a diversified portfolio with more than 15 000 active credit accounts (2021: more than 16 000), with no significant concentration either due to size of customers or due to country risk. 55% (2021: 50%) of the accounts receivable are distributed among 275 (2021: 244) corporate groups with 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 assessment. Procedures are standardized within a corporate customer credit risk policy and supported by the IT system with respective credit management tools. Credit lines are partially backed by credit risk insurance.

AGING BALANCE OF TRADE RECEIVABLES

	31.12.2022	31.12.2021
Not due yet	91%	93%
Total overdue	9%	7%
– less than 30 days	6%	4%
– more than 30 days	3%	3%

NET TRADE RECEIVABLES PER GROUP INTERNAL RISK CATEGORY

	31.12.2022	31.12.2021
A – low credit risk	24%	24%
B – low to medium credit risk	34%	31%
C – medium to above-average risk	29%	32%
D – high credit risk	12%	13%
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 EUR cash pooling structure with a leading European bank, over which most European subsidiaries execute their cash transactions denominated in euro. A USD cash pooling structure with a leading US bank was introduced in 2020. 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 with the corresponding banks.

In view of the European bank being rated »A-« (2021: A-) and the US bank being rated »A+« by the most important rating agencies, Clariant does not consider this to pose any particular counterparty risk.

At the balance sheet date, 80% (2021: 71%) of the total cash and cash equivalents and short-term deposits were held with five banks (2021: five banks), each with a position between CHF 42 million and CHF 202 million (2021: between CHF 21 million and CHF 132 million). All of these banks are rated »A-« (2021: »A-«) 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 banks managing the EUR and the USD cash pools):

Counterparty	Rating	31.12.2022
Bank 1	A-	25%
Bank 2	A+	10%
Bank 3	AA+	6%

Counterparty	Rating	31.12.2021
Bank 1	A+	20%
Bank 2	A+	7%
Bank 3	A+	5%

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 that 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 2022, the Group held money market funds of CHF 354 million (2021: CHF 29 million), of which CHF 324 million have an initial tenor of more than 90 days (2021: CHF 12 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 2022 in CHF m

	Less than 1 year	Between 1 and 2 years	Between 2 and 5 years	Over 5 years
Borrowings	355	266	563	17
Interest on borrowings	19	15	24	—
Lease liabilities	46	32	67	99
Trade payables and other liabilities	1009	4	10	41
Derivative financial instruments	—	8	17	—

AT 31 DECEMBER 2021 in CHF m

	Less than 1 year	Between 1 and 2 years	Between 2 and 5 years	Over 5 years
Borrowings	707	272	655	18
Interest on borrowings	21	13	17	1
Lease liabilities	50	40	78	121
Trade payables and other liabilities	1122	4	10	44
Derivative financial instruments	8	—	14	—

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 2022: CHF 718 million vs. 31 December 2021: CHF 427 million), out of uncommitted open cash pool limits and bank credit lines (31 December 2022: CHF 114 million vs. 31 December 2021: CHF 117 million), as well as out of additional uncommitted net working capital facilities and the issuance of capital market instruments.

Since 16 December 2016, Clariant Ltd had an agreement for a CHF 445 million (2021: CHF 445 million) five-year multicurrency 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. Clariant is in the process of negotiating a new RCF which will replace the existing one.

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 sheet in accordance with the fair value measurement hierarchy.

Carrying amounts and fair values of financial instruments by category:

At 31 December 2022 in CHF m	Financial instruments mandatorily at fair value through profit or loss	Financial instruments at fair value through OCI	Fair value - hedging instruments	Financial assets at amortized cost	Financial liabilities at amortized cost	Carrying amount	Fair value
Trade receivables	—	—	—	725	—	725	725
Short-term deposits	—	—	—	324	—	324	324
Cash and cash equivalents	—	—	—	394	—	394	394
Non-current financial assets	—	186	—	39	—	225	225
Derivative financial instruments	—	—	2	—	—	2	2
Total financial assets	**—**	**186**	**2**	**1482**	**—**	**1670**	**1670**
Trade payables and other liabilities	—	—	—	—	1009	1009	1009
Straight bonds	—	—	—	—	535	535	529
Other debt	—	—	—	—	665	665	665
Current lease liabilities	—	—	—	—	44	44	44
Non-current lease liabilities	—	—	—	—	195	195	195
Liabilities associated with assets held for sale	—	—	—	—	6	6	6
Derivative financial instruments	—	—	25	—	—	25	25
Total financial liabilities excl. trade payables and other liabilities	—	—	**25**	—	**1445**	**1470**	**1464**
Total financial liabilities	**—**	—	**25**	**—**	**2454**	**2479**	**2473**

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 of 31 December 2022, the open derivative financial instruments held were valued using the following valuation methods:

Forward exchange rate contracts: The valuations 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 30). There were no transfers between the levels in 2022 and 2021.

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 30. Movements in the hedging reserve in shareholders' equity are shown in note 30. 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 2022 and 2021 respectively:

in CHF m	**2022**	2021
Total equity	2524	2544
Total current and non-current financial liabilities (incl. lease liabilities, excl. trade payables and other liabilities)	1464	1949
Less cash and cash equivalents and short-term deposits[1]	-718	–427
Less assets held for sale (net of liabilities related to assets held for sale)	-44	-581
Cash needed for operating purposes	104	87
Invested capital	**3330**	**3572**

[1] Short-term deposits represent deposits over 90 days.

At the end of 2022, Clariant considers the invested capital to be adequate.

3.5 – LIBOR Reform

On 31 December 2021, LIBOR rates for all major currencies except for the US dollar were abandoned and replaced by alternative risk-free rates (ARFRs, e.g., SARON for CHF, SONIA for GBP and, TONAR for JPY). ARFRs are transaction-based on overnight rates (secured or unsecured). The loan documentation of Clariant's revolving credit facility (RCF) has been amended for the switch from LIBOR to ARFRs for the relevant currencies. No other financial liabilities or derivatives were affected by the discontinuation of LIBOR. All of Clariant's floating certificates of indebtedness are denominated in EUR and therefore subject to EURIBOR, which continues to be used.

4. CRITICAL ACCOUNTING ESTIMATES AND JUDGMENTS

Estimates and judgments are continually evaluated are based on historical experience and other factors, including expectations about future events that are believed to be reasonable under the circumstances.

The Group makes estimates and 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

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 cash-generating units classified as discontinued operations as well as of the assets and liabilities classified as held for sale have been valued at fair value less cost to sell.

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 event 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 healthcare 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 the business unit Pigments, 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 is 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 disposal is actually consummated.

5. PROPERTY, PLANT, AND EQUIPMENT

in CHF m	Land	Buildings	Machinery and equipment	Furniture, vehicles, computer hardware	Assets under construction	**Total 2022**
Cost						
As per 1 January	**265**	**943**	**2 082**	**291**	**400**	**3 981**
Additions	1	9	52	13	134	209
Acquired in business combinations (see note 26)	8	43	11	1	—	63
Reclassified to/from held for sale (see note 25)	–3	–38	–57	–11	–4	–113
Disposals	–2	–9	–55	–21	–1	–88
Reclassifications	12	77	232	17	–337	1
Exchange rate differences	–11	–26	–54	–10	–14	–115
At 31 December	**270**	**999**	**2 211**	**280**	**178**	**3 938**
Accumulated depreciation and impairment						
As per 1 January	–75	–468	–1 421	–227	—	–2 191
Reclassified to/from held for sale (see note 25)	—	29	45	10	—	84
Disposals	—	7	48	20	—	75
Depreciation	—	–36	–130	–18	—	–184
Impairment (see note 27)	—	–65	–170	–1	—	–236
Exchange rate differences	4	16	37	6	—	63
At 31 December	**–71**	**–517**	**–1 591**	**–210**	**—**	**–2 389**
Net book value	**199**	**482**	**620**	**70**	**178**	**1 549**

Impairments recognized in the income statement amounted to CHF 236 million in 2022 (2021: CHF 1 million) of which CHF 220 million relate to the bioethanol plant in Podari, Romania. This impairment is a consequence of the challenges encountered by Clariant in the ramp-up and industrialization of the new technology developped in Podari and the financial performance of the plant.

Additionally, an impairment of CHF 13 million was recognised on the property, plant and equipment pertaining to the North America Land Oil business to reflect the estimated fair value of that business for which a sale agreement was signed with Dorf Ketal during 2022.

Additional impairments regarding this activity were recorded in intangibles and goodwill. See note 6.

Finally, as a consequence of the Ukraine war, local assets were subject to impairment in the course of 2022 (CHF 3 million).

The property, plant and equipment pertaining to the North America Land Oil business as well as the ones pertaining to the Quats business – to be disposed of in the course of 2023 – have been reclassified to held for sale.

Exchange rate differences mainly arise from the changes in the euro/Swiss franc, Chinese renmimbi/Swiss franc, US dollar/Swiss franc and Romanian Leu/Swiss franc exchange rates. All these currencies significantly devalued against the Swiss franc in 2022.

As at 31 December 2022, commitments for the purchase of property plant and equipment concerned various projects mainly in Germany, China and US and totalled CHF 54 million (2021: CHF 78 million).
As of 31 December 2022, property, plant and equipment acquired by way of business acquisition, with costs of CHF 63 million (2021: CHF 49 million) were recorded. See also note 26.

Additions in 2022 include CHF 48 million of investments in a second production line for halogen-free flame retardants in Daya Bay, China, currently under construction.

in CHF m	Land	Buildings	Machinery and equipment	Furniture, vehicles, computer hardware	Assets under construction	**Total 2021**
Cost						
As per 1 January	293	881	1 924	274	351	3 723
Additions	1	14	51	17	279	362
Acquired in business combinations (see note 26)	4	2	42	1	—	49
Reclassified to/from held for sale (see note 25)	—	—	7	2	–4	5
Disposals	–26	–13	–16	–12	–1	–68
Reclassifications	3	71	129	14	–217	—
Exchange rate differences	–10	–12	–55	–5	–8	–90
At 31 December	**265**	**943**	**2 082**	**291**	**400**	**3 981**
Accumulated depreciation and impairment						
As per 1 January	–78	–454	–1 343	–220	—	–2 095
Reclassified to/from held for sale (see note 25)	—	—	–3	–2	—	–5
Disposals	—	12	15	12	—	39
Depreciation	—	–33	–117	–20	—	–170
Impairment (see note 27)	—	—	–1	—	—	–1
Exchange rate differences	3	7	28	3	—	41
At 31 December	**–75**	**–468**	**–1 421**	**–227**	**—**	**–2 191**
Net book value	**190**	**475**	**661**	**64**	**400**	**1 790**

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 administrative 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 properties are valued at cost less depreciation.

At the end of 2022, investment properties are almost entirely located in Germany and Switzerland. The gross book value of investment property amounted to CHF 303 million on 31 December 2022 (CHF 304 million on 31 December 2021).

Accumulated depreciation on investment property amounted to CHF 183 million on 31 December 2022 (CHF 186 million on 31 December 2021).

The net book value amounted to CHF 120 million on 31 December 2022 (CHF 118 million on 31 December 2021).

Depreciation amounted to CHF 2 million in 2022 (CHF 1 million in 2021).

Income from investment properties amounted to CHF 9 million in 2022 (CHF 6 million in 2021) and is recorded in SG&A in the segment «Corporate».

Expected minimum lease income varies between CHF 6 million and CHF 8 million (2021: CHF 5 million and CHF 6 million) per annum for the next five years and amounts to CHF 158 million for later periods (2021: CHF 199 million).

Since all investment property consists of industrial and administrative sites that have been in use for several decades, there is no active market that would give information on possible market prices. The fair values of the investment properties were therefore determined by way of external appraisals and value-in-use calculations. As of 31 December 2022, the estimated fair value of investment properties amounted to CHF 185 million (CHF 171 million as of 31 December 2021).

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6. INTANGIBLE ASSETS

in CHF m	Goodwill	Technology	Customer relationships	Trade names	Other	**Total 2022**
Cost						
As per 1 January	1 052	228	371	91	303	2 045
Additions	—	—	—	—	3	3
Acquired in business combinations (see note 26)	1	—	—	—	1	2
Disposals	—	—	—	—	-3	-3
Reclassified to held for sale (see note 25)	—	-27	-96	-5	-10	-138
Exchange rate differences	-33	-4	2	—	-7	-42
At 31 December	**1 020**	**197**	**277**	**86**	**287**	**1 867**
Accumulated amortization and impairment						
As per 1 January	**-5**	**-189**	**-268**	**-86**	**-217**	**-765**
Disposals	—	—	—	—	2	2
Amortization	—	-7	-13	1	-19	-38
Impairment (see note 27)	-152	-11	-61	—	—	-224
Reclassified to held for sale (see note 25)	—	27	96	5	10	138
Exchange rate differences	7	3	1	—	6	17
At 31 December	**-150**	**-177**	**-245**	**-80**	**-218**	**-870**
Net book value	**870**	**20**	**32**	**6**	**69**	**997**

in CHF m	Goodwill	Technology	Customer relationships	Trade names	Other	**Total 2021**
Cost						
As per 1 January	998	231	368	86	288	1 971
Additions	—	—	—	—	3	3
Acquired in business combinations (see note 26)	60	—	—	5	26	91
Disposals	—	—	—	—	–7	–7
Reclassified to held for sale (see note 25)	–1	—	—	—	3	2
Exchange rate differences	–5	–3	3	—	–10	–15
At 31 December	**1 052**	**228**	**371**	**91**	**303**	**2 045**
Accumulated amortization and impairment						
As per 1 January	–4	–182	–251	–83	–213	–733
Disposals	—	—	—	—	3	3
Amortization	—	–9	–16	–3	–15	–43
Reclassified to held for sale (see note 25)	1	—	—	—	–1	—
Exchange rate differences	–2	2	–1	—	9	8
At 31 December	**–5**	**–189**	**–268**	**–86**	**–217**	**–765**
Net book value	**1 047**	**39**	**103**	**5**	**86**	**1 280**

Amortization is allocated to the line in the income statement that represents the function to which the intangible asset pertains.

In 2022, impairment losses were recognised in the amount of CHF 224 million, mainly related to the North America Land Oil business to be disposed to Dorf Ketal in 2023. In 2021, no impairment losses were recognized.

The preliminary goodwill related to the acquisition of the US-based attapulgite business assets acquired from BASF amounted to CHF 1 million on 31 December 2022 (see note 26).

Impairment test for goodwill. Goodwill is allocated to the Group's cash generating units (CGUs). Cash generating units consist of business units that, for external reporting purposes, are reported under the corresponding business areas under the corresponding business areas (reportable segments, see note 1.25).

Goodwill is allocated to the following CGUs:

in CHF m	**31.12.2022**	31.12.2021
Industrial & Consumer Specialties	116	119
Pigments	—	11
Functional Minerals	133	137
Catalysts	612	636
Oil & Mining Services	9	155
Total net book value	**870**	**1 058**
Thereof reclassified to held for sale:		
Pigments	—	–11
Total as reported in the balance sheet	**870**	**1 047**

The recoverable amount for CGUs reported as continuing operations is determined based on their value-in-use. The value-in-use calculations use cash flow projections based on the updated strategic plans up to 2025 as approved by the Executive Steering Committee, as well as a forecast for 2026. 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 12.66 % for all cash generating units (2021: 10.70 %).

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 growth and 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.

The estimated recoverable amount of the CGU Catalysts exceeds its carrying amount, including goodwill, by CHF 177 million. The recoverable amount would be equal to the carrying amount if the assumed average annual sales growth rate during the planning period were reduced by 1.5 %, or alternatively, if the operating margin was reduced by 1.7 % of sales.

7. LEASES

in CHF m	31.12.2022	31.12.2021
Right-of-use assets - net book value		
Leasehold land	27	30
Buildings	120	149
Machinery and equipment	81	90
Furniture, vehicles, computer hardware	18	24
Total	**246**	**293**
Reclassified to held for sale (see note 25)	–6	–12
Total as reported in the balance sheet	**240**	**281**
Lease liabilities		
Non-current lease liabilities	199	238
Current lease liabilities	46	51
Total	**245**	**289**
Reclassified to held for sale (see note 25)	–6	–7
Total as reported in the balance sheet	**239**	**282**

Additions to the right-of-use assets during 2022 were CHF 19 million (2021: CHF 129 million).

Consolidated income statements include the following amounts relating to leases:

in CHF m	2022	2021
Depreciation expense		
Leasehold land	–3	–3
Buildings	–28	–29
Machinery and equipment	–11	–9
Furniture, vehicles, computer hardware	–12	–13
Total depreciation	**–54**	**–54**
Interest expense, included in finance costs	–10	–11
Expense relating to short-term leases	–9	–11
Expense relating to leases of low-value assets	–3	–4
Total	**–77**	**–80**
Thereof reported under discontinued operations		1
Total continuing operations	**–77**	**–79**

The total cash outflow for leases in 2022 was CHF 64 million (2021: CHF 70 million).

There are CHF 4 million of commitments for leases not commenced at year-end 2022 (2021: CHF 1 million).

Potential future cash outflows arising from extension options in the amount of CHF 67 million were not reflected in the measurement of lease liabilities on 31 December 2022 (2021: CHF 44 million).

8. Investments in associates and joint ventures

in CHF m	2022	2021
As per 1 January	**350**	**344**
Change in the scope of consolidation	—	–14
Additions	116	—
Disposals	–140	—
Share in profit	41	69
Share in other comprehensive income of associates and joint ventures	9	2
Dividends received	–40	–44
Exchange rate differences	–9	–7
At 31 December	**327**	**350**
Thereof joint ventures	17	120
Reclassified to held for sale (see note 25)	—	–139
Total as reported in balance sheet	**327**	**211**

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		Heubach Group		Others	
	Germany		Germany		Germany		Luxembourg			
in CHF m	**2022**	2021	**2022**	2021	**2022**	2021	**2022**	2021	**2022**	2021
Summarized financial information										
Interest held %	33%	33%	50%	50%	21%	21%	20%	0%	—	—
Revenue	1 602	1 218	362	294	276	250	1 179	—	73	149
Total comprehensive income	113	82	41	34	16	13	–127	—	11	21
Net income	91	78	33	33	16	13	–127	—	11	21
Other comprehensive income	22	4	8	1	—	—	—	—	—	—
Current assets	310	351	96	106	69	78	655	—	41	94
Non-current assets	965	930	184	193	117	119	783	—	8	23
Current liabilities	–225	–311	–71	–78	–40	–73	–279	—	–14	–40
Non-current liabilities	–719	–687	–73	–90	–63	–41	–702	—	–4	–3
Net assets	**331**	**283**	**136**	**131**	**83**	**83**	**457**	**—**	**31**	**74**
Reconciliation of book value										
Book value - beginning of period	**94**	**87**	**66**	**69**	**17**	**19**	**—**	**—**	**53**	**52**
Additions	—	—	—	—	—	—	116	—	—	—
Disposals	—	—	—	—	—	—	—	—	–33	—
Change in the scope of consolidation	—	—	—	—	—	—	—	—	—	–14
Share in profit for the period	33	25	16	17	3	3	–25	—	6	17
Share in other comprehensive income	5	2	4	—	—	—	—	—	—	—
Dividends received	–16	–16	–15	–17	–2	–3	—	—	–3	–6
Foreign exchange rate differences	–6	–4	–3	–3	–1	–2	—	—	1	4
Book value - end of the period	**110**	**94**	**68**	**66**	**17**	**17**	**91**	**—**	**24**	**53**
Clariant's share in the book values at the end of the period	**110**	**94**	**68**	**66**	**17**	**17**	**91**	**—**	**24**	**53**
Reclassified to held for sale (see note 25)	—	—	—	—	—	—	—	—	—	32

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.

On 3 January 2022, Clariant completed the sale of its Pigments business to a consortium of Heubach and SK Capital. On the same day, Clariant rolled over CHF 116 million to retain a 20% stake in the new holding company, alongside Heubach and SK Capital. This combined business is a global Pigments player.

The shareholdings in associates summarized under »Others« concern mainly companies specializing in selling Clariant products. The disposals reported in 2022 are part of the sale of the Pigments business.

On 31 December 2022, accumulated unrecognized losses amounted to CHF 4 million (2021: CHF 4 million).

In 2022, an amount of CHF 2 million was received when the escrow account associate with the disposal of 25% stake of GTC associates in the United States in 2019 was closed.

INVESTMENTS IN JOINT VENTURES:

	Scientific Design Company Inc. USA		Global Amines group	
in CHF m	**2022**	2021	**2022**	2021
Summarized financial information				
Interest held %	50%	50%	50%	50%
Revenue	—	105	307	243
Total comprehensive income	—	14	9	14
Net income	—	14	16	14
Other comprehensive income	—	—	–7	—
Current assets	—	108	123	101
Non-current assets	—	32	79	86
Current liabilities	—	–34	–113	–101
Non-current liabilities	—	–11	–10	–13
Net assets	**—**	**95**	**79**	**73**
Reconciliation of book value				
Book value - beginning of period	**107**	**108**	**13**	**10**
Disposals	-107	—	—	—
Share in profit for the period	—	—	8	7
Dividends received	—	—	–4	–2
Foreign exchange rate differences	—	–1	—	–2
Book value - end of the period	**—**	**107**	**17**	**13**
Reclassified to held for sale (see note 25)		107		
Group's share in net assets at the end of the period	**—**	**48**	**40**	**36**
Fair value adjustment/goodwill	—	66		—
Impairment	—	—	–23	–23
Taxes, minorities and other adjustments	—	—		—
Clariant's share in the book values at the end of the period	**—**	**114**	**17**	**13**

Scientific Design Company Inc., headquartered in the United States, is a producer of ethylene and oxide catalysts and has around 140 employees. Co-owner is the Saudi Arabia-based Sabic Group. On 14th April 2022, Clariant sold its 50% participation in this joint venture to the joint venture partner SABIC for a net consideration of CHF 129 million, realizing a gain of CHF 22 million.

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	**2022**	2021
At 1 January	198	202
Additions	39	5
Fair value adjustment	–4	2
Repayments and disposals	—	–2
Exchange rate differences	–8	–9
At 31 December	**225**	**198**

Financial assets include loans to associates, joint ventures and a number of small-scale participations in companies, mostly in Germany and in Switzerland, engaged in activities closely related to those of Clariant.

On 1 December 2022, the final purchase price for the Pigments business was agreed upon between Clariant and SK Capital / Heubach. Clariant received a vendor loan note in the amount of CHF 55 million, falling due on 3 January 2029 at the latest. The discounted value of that vendor loan amounted to CHF 38 million at the end of 2022 and was recorded in the balance sheet.

Participations amounted to CHF 186 million in 2022 (CHF 197 million in 2021).

In 2021, Clariant acquired a 10 % stake in Aqdot Limited, which develops intelligent encapsulation solutions for the consumer, agrochemical, and household and personal care industries. The purchase price amounted to CHF 5 million.

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 2022 and resulted in a decrease of CHF 3 million, which was recognized in other comprehensive income.

The key unobservable inputs used in the fair value estimation of the most material participation, which constitutes 86.4 % of these shareholdings, are as follows: terminal growth rate of 1.5 %, sales growth rate of 1 %, long-term pretax operating margin of 16 %, and weighted-average cost of capital of 11.4 %. The sensitivity analysis shows that if the terminal growth rate had been higher/lower by 0.5 percentage points with all other variables held constant, the fair value would have been CHF 6 million higher/lower. If the sales growth rate had been higher/lower by 1 percentage point with all other variables held constant, the fair value would have been CHF 32 million higher/CHF 31 million lower. If the long-term pre-tax operating margin had been higher/lower by 1 percentage point with all other variables held constant, the fair value would have been CHF 10 million higher/lower. If the weighted-average cost of capital had been higher/lower by 0.5 percentage points with all other variables held constant, the fair value would have been CHF 8 million lower/CHF 9 million higher.

10. TAXES

in CHF m	**2022**	2021
Current income taxes	–88	–119
Deferred income taxes	–14	–18
Total taxes	**–102**	**–137**
Thereof reported under discontinued operations	–5	35
Total continuing operations	**–107**	**–102**

The main elements contributing to the difference between the Group's overall expected tax expense/rate and the effective tax expense/rate are:

	2022 in CHF m	in %	2021 in CHF m	in %
Income before taxes from continuing operations	6		394	
Income before taxes from discontinued operations	212		116	
Income before taxes total	**218**		**510**	
Expected tax expense/rate[1]	**–69**	**31.7**	**–146**	**28.6**
Effect of taxes on items not tax-deductible	–57	26.1	–27	5.3
Effect of utilization and changes in recognition of tax losses and tax credits	–24	11.0	3	–0.6
Effect of tax losses and tax credits of current year not recognized	–43	19.7	–24	4.7
Effect of adjustments to taxes recognized in prior periods	5	-2.3	18	–3.5
Effect of tax exempt-income	73	–33.5	40	–7.8
Effect of other items	13	–6.0	–1	0.2
Effective tax expense/rate	**–102**	**46.8**	**–137**	**26.9**
Thereof reported under discontinued operations	–5	-2.4	35	30.2
Effective tax expense/rate - continuing operations	**–107**	**1 783.3**	**–102**	**25.9**

[1] Calculated based on the income before tax of each subsidiary (weighted average).

In 2022, the tax expense from continuing operations increased to CHF 107 million, compared to CHF 102 million in the prior-year. The effective tax rate for the period (continuing operations) was negatively impacted by non-deductible impairments and FX losses as well as by non-recognized deferred tax assets on operational losses. These effects were partially offset by the positive impacts coming from higher share of profit generated in low tax jurisdictions and from the tax free capital gain realized on the sale of the participation held in Scientific Design.

In December 2021, the Organization for Economic Co-operation and Development (OECD) released a draft legislative framework, followed by a detailed guidance released in March 2022, that is expected to be introduced by individual jurisdictions that signed the agreement to amend their local tax laws. Clariant is closely monitoring the progress of the legislative process in each jurisdiction the Group operates and is in process of assessing the potential impact of the new regulation.

The movement of the net deferred income tax balance is as follows:

in CHF m	PPE, RoU assets and intangible assets	Retirement benefit obligations/ assets	Tax losses and tax credits	Other liabilities and provisions	**Total**	Thereof offset within the same jurisdiction	**Total**
Deferred tax assets at 31 December 2021	137	97	43	101	378	–220	158
Deferred tax liabilities at 31 December 2021	–210	–1	—	–33	–244	220	–24
Net deferred tax balance at 1 January 2021	**–73**	**96**	**43**	**68**	**134**	**—**	**134**
Charged/credited to income	–7	–11	–14	14	–18		
Total charged/credited to income statement	**–7**	**–11**	**–14**	**14**	**–18**		
Charged/credited to other comprehensive income	—	–7	—	—	–7		
Effect of disposals	1	—	—	—	1		
Effect of acquisitions	9	—	—	—	9		
Reclassified to/from held for sale	18	—	—	—	18		
Exchange rate differences	1	6	–4	–7	–4		
Net deferred tax balance at 31 December 2021	**–51**	**84**	**25**	**75**	**133**	**—**	**133**
Deferred tax assets at 31 December 2021	155	87	25	114	381	–218	163
Deferred tax liabilities at 31 December 2021	–206	–3	—	–39	–248	218	–30
Net deferred tax balance at 1 January 2022	**–51**	**84**	**25**	**75**	**133**	**—**	**133**
Charged/credited to income statement	23	–5	–30	–2	–14		
Total charged/credited to income statement	**23**	**–5**	**–30**	**–2**	**–14**		
Charged/credited to other comprehensive income	—	–23	—	1	–22		
Exchange rate differences	–9	1	5	-1	–4		
Net deferred tax balance at 31 December 2022	**–37**	**57**	—	**73**	**93**	**—**	**93**
Deferred tax assets at 31 December 2022	119	57	**—**	107	283	–163	120
Deferred tax liabilities at 31 December 2022	–156	—	—	–34	–190	163	–27
Net deferred tax balance at 31 December 2022	**–37**	**57**	**—**	**73**	**93**	**—**	**93**

Of the deferred tax assets capitalized on tax losses, CHF 7 million pertains to tax losses of the Indian subsidiaries (2021: CHF 6 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 2 022 million at the end of 2022 (2021: CHF 2 252 million).

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 the US (with a tax rate of 24 %), in France (with a tax rate of 27 %), in Canada (with a tax rate of 25 %), in Romania (with a tax rate of 16 %) and in the Switzerland (with a tax rate of 14 %). At present their recoverability is not considered probable.

Tax losses on which no deferred tax assets were recognized are as follows:

in CHF m	**31.12.2022**	31.12.2021
EXPIRY BY:		
2022	—	10
2023	1	5
2024	2	3
2025	34	33
2026	27	
after 2026 (2021: after 2025)	462	532
Total	**526**	**583**

Tax credits amounting to CHF 3 million were recognized in 2022 (2021: CHF 9 million). They expire in and after 2027.

Temporary differences on which no deferred tax was recognized amount to CHF 658 million in 2022 (2021: CHF 1208 million).

11. INVENTORIES

in CHF m	31.12.2022	31.12.2021
Raw material, consumables, work in progress	363	394
Finished products	452	531
Total	**815**	**925**
Reclassified to held for sale (see note 25)	–19	–234
Total as reported in the balance sheet	**796**	**691**

in CHF m	2022	2021
Movements in write-downs of inventories		
As per 1 January	–34	–40
Additions	–20	–17
Reversals	12	22
Effect of disposals	7	—
Exchange rate differences	2	1
At 31 December	**–33**	**–34**
Thereof reclassified to held for sale	—	–7

In 2022, an impairment of CHF 2 million was recorded on the inventories of the Ukraine entity (see note 27).

As of 31 December 2022 and 2021, 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 2 328 million (2021: CHF 1 860 million) for continuing operations.

12. TRADE RECEIVABLES

in CHF m	31.12.2022	31.12.2021
Gross accounts receivable – trade	709	860
Gross accounts receivable – associates and joint ventures	26	26
Less: provision for doubtful accounts receivable	–10	–9
Total trade receivables – net	**725**	**877**
Reclassified to held for sale (see note 25)	—	–148
Total as reported in the balance sheet	**725**	**729**

The following summarizes the movement in the provision for doubtful accounts receivable:

in CHF m	2022	2021
As per 1 January	–9	–5
Charged to the income statement	–10	–9
Amounts used	2	2
Unused amounts reversed	6	2
Exchange rate differences	1	1
At 31 December	**–10**	**–9**

There is no concentration of credit risk with respect to trade receivables, as the Group has a large number of internationally dispersed customers.

The maximum credit risk on trade receivables is equal to their carrying amount.

Collaterals are only required in rare cases (less than CHF 1 million in 2022 and 2021).

The loss allowance for trade receivables as of 31 December 2022 and 2021 was determined as follows:

in CHF m	Current	30 - 60 days overdue	61 - 90 days overdue	More than 90 days overdue	Individually impaired	Total
31 December 2022						
Expected loss rate (in %)	1.13	5.88	6.53	6.76		
Gross carrying amount – trade receivables	704	7	4	20	—	735
Loss allowance	**9**	**—**	**—**	**1**	**—**	**10**

in CHF m	Current	30 - 60 days overdue	61 - 90 days overdue	More than 90 days overdue	Individually impaired	Total
31 December 2021						
Expected loss rate (in %)	0.92	3.05	3.23	3.29		
Gross carrying amount - trade receivables	847	18	6	15	—	886
Loss allowance	**8**	**1**	**—**	**—**	**—**	**9**

The carrying amounts of the Group's trade receivables are denominated in the following currencies:

in CHF m	**31.12.2022**	31.12.2021
EUR	287	344
USD	233	262
CNY	36	54
BRL	41	45
JPY	20	29
INR	42	67
Other	66	76
Total trade receivables – net	**725**	**877**
Reclassified to held for sale (see note 25)	—	–148
Total as reported in the balance sheet	**725**	**729**

As of 31 December 2022, »total trade receivables – net« include an amount of CHF 60 million (2021: CHF 72 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	**31.12.2022**	31.12.2021
Other receivables	246	271
Current financial assets	40	49
Prepaid expenses and accrued income	41	44
Total	**327**	**364**
Reclassified to held for sale (see note 25)	—	–48
Total as reported in the balance sheet	**327**	**316**

Other receivables include, among others, staff loans, deposits, advances, and 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 current financial assets are also subject to the impairment requirements of IFRS 9. The identified impairment loss for other receivables was immaterial in 2022 and 2021.

Other receivables are denominated in the following currencies:

in CHF m	**31.12.2022**	31.12.2021
CHF	15	12
EUR	41	78
USD	4	18
JPY	3	5
BRL	29	33
CNY	18	24
INR	31	36
Other	105	65
Total	**246**	**271**
Thereof reclassified to held for sale	—	46

Current financial assets are denominated in the following currencies:

in CHF m	**31.12.2022**	31.12.2021
CHF	22	32
USD	2	1
CNY	15	16
Other	1	—
Total	**40**	**49**

The maximum exposure to credit risk of other current assets at the reporting date is equal to their carrying amount.

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	**31.12.2022**	31.12.2021
EUR	191	–
CHF	125	–
INR	8	12
Total	**324**	**12**

15. CASH AND CASH EQUIVALENTS

in CHF m	**31.12.2022**	31.12.2021
Cash at bank and on hand	364	398
Short-term bank deposits	30	17
Total	**394**	**415**

Cash and cash equivalents are denominated in the following currencies:

in CHF m	**31.12.2022**	31.12.2021
EUR	84	18
USD	89	149
CHF	81	83
GBP	9	23
CNY	38	8
JPY	13	20
INR	32	42
BRL	11	23
Other	37	49
Total	**394**	**415**

During 2022, there were short-term bank deposits in Swiss francs, in euro and in US dollars. In 2021, there were short-term bank deposits in Swiss francs and in US-dollars.

The effective average annual interest rate on short-term bank deposits in Swiss franc was –0.12 % (2021: –0.55 %); these deposits have an average maturity of 19 days (2021: 50 days).

The effective average annual interest rate on short-term bank deposits in euro was 1.30 % (2021: none in place); these deposits have an average maturity of 60 days (2021: none in place).

The effective average annual interest rate on short-term bank deposits in US dollar was 3.03 % (2021: 0.31 %); these deposits have an average maturity of 27 days (2021: 60 days).

At the end of 2022, there were no short-term bank deposits denominated in currencies other than the euro. At the end of 2021, there were no material short-term bank deposits denominated in currencies other than in Brazilian real.

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 2022 and 2021	Notes	**2022** in CHF m	2021 in CHF m
Non-cash income and expenses		**116**	**373**
Depreciation of property, plant, and equipment and right-of-use assets	5, 7	238	224
Impairment	27	462	1
Amortization of intangible assets	6	38	43
Impairment of working capital		27	18
Income from associates and joint ventures	8	-41	-69
Tax expense	10	102	137
Net financial income and costs	28	46	46
Gain/loss from disposals not qualifying as discontinued operations		-22	—
Gain on disposals of discontinued operations	25	-219	—
Other non-cash items		10	-9
Total non-cash income and expenses		**641**	**391**
Changes in net working capital and provisions			
Changes in inventories		-179	–226
Changes in trade receivables		-40	–191
Changes in trade payables		77	196
Changes in other current assets and liabilities		-49	–26
Changes in provisions (excluding payments for restructuring)		48	–58
Total changes in net working capital and provisions		**-143**	**–305**

17. CHANGES IN SHARE CAPITAL AND TREASURY SHARES AND CHANGES IN NONCONTROLLING INTERESTS

Registered shares each with a par value of CHF 2.60 (2021: CHF 3.00)	Number of shares 2022	Par value 2022 in CHF m	Number of shares 2021	Par value 2021 in CHF m
Share capital as per 1 January	**331 939 199**	**996**	**331 939 199**	**1 228**
Nominal value reduction		–133		–232
Share capital at 31 December	**331 939 199**	**863**	**331 939 199**	**996**
Treasury shares	–2 922 398	–8	–2 822 712	–8
Outstanding share capital at 31 December	**329 016 801**	**855**	**329 116 487**	**988**

Treasury shares (number of shares)	2022	2021
Holdings as per 1 January	2 822 712	2 385 509
Shares purchased at market value	238 862	657 207
Shares purchased on exercise of put options	200 000	200 000
Shares transferred to employees	–339 176	–420 004
Holdings at 31 December	**2 922 398**	**2 822 712**

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 is 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 from share capital to shareholders

On 24 June 2022 the Annual General Meeting of Clariant AG approved a distribution through capital reduction by way of a par value reduction of the par value from CHF 3.00 to CHF 2.60 per registered share. The payout reduced the share capital by CHF 133 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 2022, the following shareholders held more than 3% of the 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	31.50 % [1]
BlackRock Inc., New York, United States	3.80%
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. SABIC has not changed its participation of 31.5 % since then. The difference between this figure (i.e. 31.5 %) and the 32.35 % stated for 2021 corresponded to the amount of treasury shares held by Clariant Ltd as of 31 December 2021, 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. Said Governance Agreement expired at the Annual General Meeting dated 24 June 2022 and consequently the treasury shares of Clariant Ltd have not to be aggregated to the SABIC shares any longer.

[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 2022 financial year 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 2021, 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: 32.35%; BlackRock Inc., New York, United States: 3.8%; Blue Beteiligungsgesellschaft mbH, Am Holzmaierfeld, 82064 Strasslach-Dingharting (Germany), and Maple Beteiligungsgesellschaft mbH, 82057 Icking (Germany): 3.49%; PSquared Master SICAV Ltd, on behalf of its subfund Valetta, Malta Leveraged Event Fund LP, Grand Cayman, Cayman Islands, controlled by Patrick Schmitz-Morkramer, Zurich, Switzerland, and Patrick Bierbaum, Zurich, Switzerland: 3.035%.

On 31 December 2022, Clariant AG itself held 2 922 398 shares in treasury, corresponding to 0.88% of the share capital.

Non-controlling interests

As at 31 December 2022, non-controlling interests reported are primarily made up of those of the four following companies, representing more than 90 % of the minority shares reported:

Süd-Chemie India Ltd (SCIL) reported sales in the amount of CHF 234 million in the reporting period and total assets of CHF 220 million as of 31 December 2022. As of 31 December 2022, total equity of Süd-Chemie India Ltd (SCIL) amounted to CHF 220 million. The non-controlling interests of 50 % of the shares outstanding are owned by private shareholders in India.

Clariant IGL Specialty Chemicals, acquired on 1 July 2021, reported sales in the amount of CHF 146 million in 2022 and total assets of CHF 136 million as of end of December 2022, thereof current assets of CHF 44 million and non-currents assets of CHF 92 million. Total liabilities amounted to CHF 54 million, thereof current liabilities of CHF 38 million and non-current liabilities of CHF 16 million. The total equity of IGL therefore amounted to CHF 82 million as of 31 December 2022. The non-controlling interests of 49 % of the shares outstanding are owned by the India-based IGL group.

Clariant Huajin Catalysts (Panjin) Ltd, reported sales in the amount of CHF 42 million in 2022 and total assets in the amount of CHF 59 million as of 31 December 2022. The non-controlling interests of 40 % of the shares outstanding are held by Northern Huajin Chemical Industry Group Co. Ltd.

Clariant Catalysts (Japan) K.K. reported sales in the amount of CHF 166 million in 2022 and CHF 77 million of total assets as of 31 December 2022. The non-controlling interests of 38.6 % of the shares outstanding are held by Nissan Chemicals Industries Ltd.

Clariant Chemicals (India) Ltd was sold in 2022 together with the Pigment business.

18. NON-CURRENT FINANCIAL DEBTS

in CHF m	Interest rate in %	Term	**Notional amount**	**Net amount 31.12.2022**	Net amount 31.12.2021
Straight bond	3.500	2012–2022	175 CHF m	—	175
Certificates of indebtedness	mixed	2020–2022	115 EUR m	—	118
Certificates of indebtedness	mixed	2015–2023	150 EUR m	148	155
Certificate of indebtedness	6 m EURIBOR +1.1	2016–2023	13 EUR m	13	13
Certificate of indebtedness	1.137	2016–2023	27 EUR m	26	27
Certificate of indebtedness	1.501	2016–2023	73 EUR m	72	76
Straight bond	2.125	2014–2024	160 CHF m	160	160
Certificate of indebtedness	1.194	2018–2024	92 EUR m	91	95
Certificate of indebtedness	1.548	2018–2025	102 EUR m	101	106
Certificate of indebtedness	6 m EURIBOR +0.95	2018–2025	54 EUR m	53	55
Certificate of indebtedness	2.010	2016–2026	15 EUR m	14	15
Straight bond	1.125	2019–2026	200 CHF m	200	200
Straight bond (green bond)	2.717	2022–2027	175 CHF m	175	—
Certificate of indebtedness	2.087	2018–2028	17 EUR m	17	18
Total straight bonds and certificates of indebtedness				**1 070**	**1 213**
Liabilities to banks and other financial institutions				**59**	**38**
Subtotal				**1 129**	**1 251**
Less: current portion (see note 23)				**–259**	**–293**
Total				**870**	**958**
Breakdown by maturity					
			2023	—	271
			2024	274	283
			2025	189	170
			2026	215	—
			after 2026 (2021: after 2025)	192	234
Total				**870**	**958**
Breakdown by currency			CHF	559	561
			EUR	276	374
			Others	35	23
Total				**870**	**958**
Fair value comparison (including current portion)					
Straight bonds				529	554
Certificates of indebtedness				535	678
Others				155	38
Total				**1 219**	**1 270**

In 2022, five certificates of indebtedness in the amount of EUR 263 million with maturity in 2023 were reclassified to current financial debt.

Certificates of indebtedness issued in 2020 totaling EUR 115 million were repaid in 2022. On 28 April 2022, before its maturity, one certificate was partially repaid (EUR 13 million); the remaining part (EUR 15 million) was repaid at maturity on 23 May 2022. On that same date, another certificate of indebtedness with a nominal value of EUR 87 million reached maturity and was repaid.

On 26 September 2022, a bond issued in 2012 in the amount of CHF 175 million reached maturity and was repaid and on that same date, a new green bond with a nominal value of CHF 175 million and maturity in 2027 was issued.

On 23 August 2021, two certificates of indebtedness issued in 2020 were repaid early (CHF 37 million, original maturity 2022; CHF 25 million, original maturity 2025).

On 22 November 2021, the certificate of indebtedness issued in 2020 with a notional amount of EUR 83 million was repaid early (original maturity 2025).

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 or 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 Liquidity risk.

Exposure of the Group's borrowings to interest rate changes

— **Bonds:** The interest rates of all bonds are fixed.

— **Certificates of indebtedness:** Most of the existing certificates of indebtedness have a fixed coupon.

— **Liabilities to banks and other financial institutions:** These mostly consist of bank loans mainly with fixed interest rates.

Collateral. In 2022 and 2021, no assets were pledged as collateral.

19. RECONCILIATION OF NET DEBT

in CHF m	01.01.2022	Effects of business acquisitions	Movements in cash flow	Exchange rate differences	Other non-cash movements	31.12.2022	Reclassified to held for sale (see note 25)	Total as reported in balance sheet
Cash and cash equivalents	415		–10	–11	—	394	—	394
Short-term deposits	12		313	–1	—	324	—	324
Financial instruments with positive fair values	1		1	—	—	2	—	2
Total cash and liquid investments	**428**	**—**	**304**	**–12**	**—**	**720**	**—**	**720**
Non-current financial debt	–958		–175	4	259	–870	—	–870
Current financial debt	–709		573	40	–259	–355		–355
Lease liabilities	–282		64	10	–37	–245	6	–239
Borrowings and other financial liabilities	**–1 949**	**—**	**462**	**54**	**–37**	**–1 470**	**6**	**–1 464**
Net debt	**–1 521**	**—**	**766**	**42**	**–37**	**–750**	**6**	**–744**

in CHF m	01.01.2021	Effects of business acquisitions	Movements in cash flow	Exchange rate differences	Other non-cash movements	31.12.2021	Reclassified to held for sale (see note 25)	Total as reported in balance sheet
Cash and cash equivalents	737		–318	–4		415	—	415
Short-term deposits	267		–255			12	—	12
Financial instruments with positive fair values	5		–4			1	—	1
Total cash and liquid investments	**1 009**	**—**	**–577**	**–4**	**—**	**428**	**—**	**428**
Non-current financial debt	–1 424	–24	150	47	293	–958	—	–958
Current financial debt	–411	—	12	–24	–293	–716	7	–709
Lease liabilities	–214	—	70	3	–148	–289	7	–282
Borrowings and other financial liabilities	**–2 049**	**–24**	**232**	**26**	**–148**	**–1 963**	**14**	**–1 949**
Net debt	**–1 040**	**–24**	**–345**	**22**	**–148**	**–1 535**	**14**	**–1 521**

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 95.1 % 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.

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.

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 at 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.

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 Leadership Team 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 2020 generation table
Germany	Richttafeln 2018G by Prof. Dr. Klaus Heubeck
UK	SAPS S3 series amount tables (base table)
	CMI Model (2021) (future improvements)
USA	Pri 2012 mortality table with projection scale
	MP-2021

Post-employment medical benefits. The Group operates a number of post-employment medical benefit schemes in the United States 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:

	Pension plans (funded and unfunded)		Post-employment medical benefits (unfunded)	
in CHF m	**2022**	2021	**2022**	2021
As per 1 January	2 395	2 497	45	48
Current service cost	23	28	—	—
Past service cost/gain including curtailments	16	11	—	—
Gain/loss on settlements	–1	–2	—	—
Interest costs on obligation	24	22	1	1
Contributions to plan by employees	8	14	—	—
Benefits paid out to personnel in reporting period	–122	–134	–3	–3
Remeasurements:				
Actuarial gain/loss arising from changes in demographic assumptions	–2	–39	—	–1
Actuarial gain/loss arising from changes in financial assumptions	–554	–45	–9	–1
Actuarial gain/loss due to experience adjustments	77	57	2	1
Liabilities acquired in a business combination	—	1	—	—
Effect of disposals	–92	—	—	—
Changes in the scope of consolidation	–2			
Exchange rate differences	–47	–15	—	—
At 31 December	**1 723**	**2 395**	**36**	**45**

Changes in the fair value of plan assets are as follows:

in CHF m	**2022**	2021
As per 1 January	2 053	1 932
Interest income on plan assets	18	15
Contributions to plan by employees	8	15
Contributions to plan by employer	17	37
Benefits paid out to personnel in reporting period	–99	–109
Remeasurements:		
Return on plan assets (excluding amount included in interest expense)	–355	152
Effect of disposals	–60	—
Exchange rate differences	–33	11
At 31 December	**1 549**	**2 053**

As at 31 December 2022 and 2021, 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:

	Defined-benefit pension plans		Post-employment medical benefits		Total	
in CHF m	**31.12.2022**	31.12.2021	**31.12.2022**	31.12.2021	**31.12.2022**	31.12.2021
Present value of funded obligations	–1 278	–1 815	—	—	–1 278	–1 815
Fair value of plan assets	1 549	2 053	—	—	1 549	2 053
Overfunding/Deficit	**271**	**238**	**—**	**—**	**271**	**238**
Present value of unfunded obligations	–445	–580	–36	–45	–481	–625
Limitation on recognition of net assets [1]	–217	–166	—	—	–217	–166
Net liabilities, total	**–391**	**–508**	**–36**	**–45**	**–427**	**–553**
Reclassified to held for sale (see note 25)	—	36	—	—	—	36
Net liabilities in the balance sheet	**–391**	**–472**	**–36**	**–45**	**–427**	**–517**

[1] The limitation on recognition of net assets pertains to Swiss pension plan.

Thereof recognized in:

in CHF m	**31.12.2022**	31.12.2021	**31.12.2022**	31.12.2021	**31.12.2022**	31.12.2021
Retirement benefit obligations	–452	–585	–36	–45	–488	–630
Reclassified to held for sale (see note 25)	—	37	—	—	—	37
Retirement benefit obligations in the balance sheet	**–452**	**–548**	**–36**	**–45**	**–488**	**–593**
Prepaid pension assets	61	77	—	—	61	77
Reclassified to held for sale (see note 25)	—	–1	—	—	—	–1
Prepaid pension assets in the balance sheet	**61**	**76**	**—**	**—**	**61**	**76**
Net liabilities in the balance sheet for defined-benefit plans	**–391**	**–472**	**–36**	**–45**	**–427**	**–517**

The amounts recognized in the income statement and in other comprehensive income are as follows:

	Defined-benefit pension plans		Post-employment medical benefits		Total	
in CHF m	**2022**	2021	**2022**	2021	**2022**	2021
Current service cost	–23	–28	—	—	–23	–28
Net interest cost	–6	–7	–1	–1	–7	–8
Past service cost/gain including curtailments	–16	–11	—	—	–16	–11
Gain/loss on settlements	1	2	—	—	1	2
Components of defined-benefit expense reported in the income statement	**–44**	**–44**	**–1**	**–1**	**–45**	**–45**
in CHF m						
Actuarial gain/loss arising from changes in demographic assumptions	2	39	—	1	2	40
Actuarial gain/loss arising from changes in financial assumptions	554	45	9	1	563	46
Actuarial gain/loss due to experience adjustments	–77	–57	–2	–1	–79	–58
Return on plan assets (excluding amount included in net interest expense)	–355	152	—	—	–355	152
Limitation on recognition of net assets	–58	–166	—	—	–58	–166
Components of defined-benefit gain reported in other comprehensive income	**66**	**13**	**7**	**1**	**73**	**14**
Total defined-benefit expense/gain	**22**	**–31**	**6**	**—**	**28**	**–31**

The fair value of the plan assets is split into the major assets categories as follows:

in CHF m	**31.12.2022**	31.12.2021
Equities	306	427
thereof based on quoted market prices	*304*	*423*
Bonds	493	614
thereof based on quoted market prices	*344*	*423*
Cash	63	82
thereof based on quoted market prices	*63*	*82*
Property	241	298
thereof based on quoted market prices	*156*	*215*
Alternative investments	446	632
thereof based on quoted market prices	*111*	*220*
Total fair value of plan assets	**1549**	**2053**

The principal actuarial assumptions at the balance sheet dates in percent are as follows:

		2022 in %					2021 in %				
		Group	**Most important countries**				**Group**	**Most important countries**			
		Weighted average	Switzerland	United Kingdom	United States	Germany	Weighted average	Switzerland	United Kingdom	United States	Germany
Discount rate		3.4	2.0	5.0	5.1	3.9	1.1	0.2	1.8	2.6	1.2
Future salary increases		2.0	2.0	—	3.2	2.5	1.7	1.5	—	3.5	2.5
Long-term increase in healthcare costs		6.1	—	—	7.1	—	5.1	—	—	6.0	—
Current average life expectancy for a 65 year old male	in years	19	23	20	21	21	18	23	21	21	20
Current average life expectancy for a 65 year old female	in years	21	25	24	23	24	20	25	24	23	24

A one-percentage-point change in healthcare cost trend rates would have the following effects on the obligation for post-employment medical benefits:

2022 in CHF m	**One percentage point increase**	**One percentage point decrease**
Effect on the aggregate of the service cost and interest cost	0	0
Effect on defined-benefit obligation	3	–2

2021 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	4	–3

A 25-basis-point change in the discount rate would have the following effects on the obligation for pension plans:

	25 basis point increase		25 basis point decrease	
in CHF m	**2022**	2021	**2022**	2021
Effect on defined-benefit obligation	–48	–81	49	86

If life expectancy increased by one year, the defined benefit obligation would increase by CHF 83 million (2021: CHF 96 million).

Defined contribution post-employment plans. In 2022, CHF 18 million was charged to the income statement as contributions to defined contribution plans (2021: CHF 22 million).

In Germany, approximately 3400 Clariant employees are insured in a defined-benefit plan that 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 that 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 2022, the pension fund's obligations are fully funded. Also, for 2023, it is anticipated that the pension plan liabilities will be covered by the respective assets.

In the event that the multi-employer plan faces a situation where 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. If the benefits are reduced, this must be compensated for by the employer according to German legislation. If the pension plan is unwound, the remaining funds will 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 withdraws from the pension fund, all rights and obligations of the employer against the pension plan will 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 6 %.

Clariant's contribution to this pension plan amounted to CHF 13 million in 2022 (CHF 16 million in 2021) and is expected to be CHF 13 million in 2023.

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 that were formerly part of the Hoechst Group continue to participate in this multi-employer plan.

	Pension plans		Post-employment medical benefits	
in CHF m	**2022**	2021	**2022**	2021
Clariant Group regular and supplemental contributions (employer's contributions):				
Actual contributions in 2021	—	37	—	—
Actual contributions in 2022 (2021: estimated)	17	19	—	—
Estimated contributions in 2023	15	19	—	—
Estimated contributions in 2024	15	19	—	—
Estimated contributions in 2025	15	19	—	—
Estimated contributions in 2026	16	19	—	—
Estimated contributions in 2027	16		—	
Payments to beneficiaries:				
Actual payments in 2021	—	–134	—	–3
Actual payments in 2022 (2021: estimated)	–122	–120	–3	–3
Estimated payments in 2023	–111	–110	–4	–3
Estimated payments in 2024	–110	–112	–4	–3
Estimated payments in 2025	–106	–113	–4	–3
Estimated payments in 2026	–105	–113	–3	–3
Estimated payments in 2027	–106		–3	
Allocation of defined-benefit obligation to plan members (in CHF m):				
Active members	368	605	7	10
Deferred members	168	317	2	5
Retired members	1 187	1 473	27	30
Total funded and unfunded obligations at 31 December	**1 723**	**2 395**	**36**	**45**
Weighted-average duration of the defined-benefit obligation at the end of the reporting period (in years):				
At 31 December	11.5	14.4	9.6	9.8

21. MOVEMENTS IN PROVISIONS

in CHF m	Environmental provisions	Personnel provisions	Restructuring provisions	Other provisions	**Total provisions 2022**	Total provisions 2021
As per 1 January	117	109	67	82	375	441
Additions	22	122	65	26	235	212
Effect of business combinations (see note 26)	—	—	—	19	19	—
Amounts used	–11	–109	–32	–20	–172	–201
Unused amounts reversed	–2	–10	–14	–22	–48	–68
Changes due to the passage of time and changes in discount rates	–3	—	—	—	–3	1
Exchange rate differences	–2	–5	–4	–2	–13	–10
At 31 December	**121**	**107**	**82**	**83**	**393**	**375**
Of which						
– Current portion	21	92	57	45	215	223
– Non-current portion	100	15	25	38	178	152
Total provisions	**121**	**107**	**82**	**83**	**393**	**375**
Expected outflow of resources						
Within 1 year	21	92	57	45	215	223
Between 1 and 3 years	29	11	24	19	83	77
Between 3 and 5 years	23	1	1	6	31	23
Over 5 years	48	3	—	13	64	52
Total provisions	**121**	**107**	**82**	**83**	**393**	**375**

Environmental provisions. Provisions for environmental liabilities are made when there is a legal or constructive obligation for the Group that will result in an outflow of economic resources. It is difficult to estimate the future action required by Clariant, as well as the associated costs, to correct the environmental effects of prior disposals or releases of chemical substances by Clariant or other parties pursuant to environmental laws and regulations.

The material components of the environmental provisions consist of the costs to 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 when there is an obligation to remedy environmental damage, as well as for containment work when 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 when 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 when 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 at the end of 2022 concern headcount reductions in various countries, with the largest amounts incurred in Germany and Switzerland. For further information regarding restructuring measures, refer to note 27.

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.

All non-current provisions are discounted to reflect the time value of money, when 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	**31.12.2022**	31.12.2021
Trade payables	560	688
Contract liabilities	166	91
Payables to associates and joint ventures	39	55
Accruals	136	156
Other liabilities	163	190
Total trade payables and other liabilities	**1 064**	**1 180**
Reclassified to non-current liabilities	–55	–58
Reclassified to held for sale (see note 25)		–137
Total as reported in the balance sheet	**1 009**	**985**

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	**31.12.2022**	31.12.2021
Banks and other financial institutions	96	423
Current portion of non-current financial debts (see note 18)	259	293
Total	**355**	**716**
Reclassified to held for sale (see note 25)	—	–7
Total current financial debts as reported in the balance sheet	**355**	**709**

Breakdown by maturity:

in CHF m	**31.12.2022**	31.12.2021
Up to three months after the balance sheet date	81	364
Three to six months after the balance sheet date	234	143
Six to twelve months after the balance sheet date	40	209
Total	**355**	**716**
Reclassified to held for sale (see note 25)	—	–7
Total current financial debts as reported in the balance sheet	**355**	**709**

On 3 January 2022, a bridge loan in the amount of EUR 250 million was repaid.

As of the end of December 2022, five certificates of indebtedness in the amount of EUR 263 million with maturity in 2023 have been reclassified to current financial debt.

Certificates of indebtedness issued in 2020 totaling EUR 115 million were repaid in 2022. On 28 April 2022, before its maturity, one certificate was partially repaid (EUR 13 million); the remaining part (EUR 15 million) was repaid at maturity on 23 May 2022. On that same date, another certificate of indebtedness with a nominal value of EUR 87 million reached maturity and was repaid.

On 26 September 2022, a bond issued in 2012 in the amount of CHF 175 million reached maturity and was repaid. On that same date, a new green bond with a nominal value of CHF 175 million and maturity in 2027 was issued.

On 5 August 2021, certificates of indebtedness issued in 2016 in the amount of EUR 55 million (CHF 60 million) and USD 277 million (CHF 250 million) reached maturity and were repaid.

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 or 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

The Business Unit Pigments, which has been reported as "discontinued operations" in the financial report since 2019, was sold on 3 January 2022. See also note 25.

Following the portfolio reorganization that was executed over the past few years with the disposal of the Business Units Masterbatches and Pigments, Clariant has grouped its remaining activities into three business areas (reportable segments): Care Chemicals (BU ICS), Catalysis (BU Catalysts), Natural Resources (BU Oil & Mining Services, BU Functional Minerals and BU Additives).

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	
	2022	2021	**2022**	2021	**2022**	2021	**2022**	2021	**2022**	2021
Segment sales	2 107	1 716	989	907	2 115	1 790	—	—	5 211	4 413
Sales to other segments	–8	–17	—	—	–5	–24	—	—	–13	–41
Total sales from continuing operations	**2 099**	**1 699**	**989**	**907**	**2 110**	**1 766**	**—**	**—**	**5 198**	**4 372**
Operating expenses	–1 707	–1 421	–1 208	–825	–2 052	–1 557	–159	–129	–5 126	–3 932
Thereof:										
Income from associates and joint ventures	25	34	—	—	28	8	–12	–1	41	41
Gain/loss from disposals not qualifying as discontinued operations	—	—	—	—	—	—	22	—	22	—
Restructuring, impairment and transaction-related costs	–4	–15	–230	2	–243	–3	–90	–37	–567	–53
Operating income	**392**	**278**	**–219**	**82**	**58**	**209**	**–159**	**–129**	**72**	**440**
Net financial expenses and taxes									–162	–148
Net result from continuing operations									**–90**	**292**
Result from discontinued operations									217	81
Net income									**127**	**373**
Segment assets	1 303	1 299	1 591	1 847	1 448	1 548			4 347	4 694
Segment liabilities	–202	–239	–280	–192	–246	–259		—	–728	–690
Net operating assets	**1 101**	**1 060**	**1 311**	**1 655**	**1 202**	**1 289**	**—**	**—**	**3 619**	**4 004**
Segment assets reported as assets held for sale	33	—		107	16	—		—	49	107
Corporate assets reported as assets held for sale		—		—		—	1	2	1	2
Segment assets of discontinued operations reported as assets held for sale		—		—		—		—		719
Assets held for sale	**33**	**—**	**—**	**107**	**16**	**—**	**1**	**2**	**50**	**828**
Segment liabilities of discontinued operations reported as liabilities associated with assets held for sale										–247
Segment liabilities reported as assets held for sale					–6				–6	—
Liabilities directly associated with assets held for sale	**—**	**—**	**—**	**—**	**–6**	**—**	**—**	**—**	**–6**	**–247**
Corporate assets without cash							1 082	1 088	1 082	1 088
Corporate liabilities without financial liabilities							–1 477	–1 608	–1 477	–1 608
Net debt (see note 19)							–744	–1 521	–744	–1 521
Total net assets	**1 134**	**1 060**	**1 311**	**1 762**	**1 212**	**1 289**	**–1 138**	**–2 039**	**2 524**	**2 544**
Thereof:										
Investments in PPE and intangibles for the period	49	66	63	196	93	56	7	15	212	333
Investments in associates and joint ventures at the end of the period	91	85	—	—	98	121	138	5	327	211
Reconciliation of key figures										
Operating income	392	278	–219	82	58	209	–159	–129	72	440
Add: systematic depreciation of PPE	55	57	69	50	48	49	12	14	184	170
Add: impairment	—	—	225	—	237	1	—	—	462	1
Add: depreciation of RoU assets	9	9	11	8	19	20	15	17	54	54
Add: amortization of intangible assets	13	7	7	12	18	21	—	3	38	43
EBITDA[1]	**469**	**351**	**93**	**152**	**380**	**300**	**–132**	**–95**	**810**	**708**
Add: restructuring, impairment and transaction-related costs	4	15	230	–2	243	3	90	37	567	53
Less: impairment	—	—	–225	—	–237	–1	—	—	–462	–1
Less: gain/loss from disposals not qualifying as discontinued operations	—	—	—	—	—	—	–22	—	–22	—
Adjusted EBITDA	**473**	**366**	**98**	**150**	**386**	**302**	**–64**	**–58**	**893**	**760**
Operating income	392	278	–219	82	58	209	–159	–129	72	440
Add: restructuring, impairment and transaction-related costs	4	15	230	–2	243	3	90	37	567	53
Less: gain/loss from disposals not qualifying as discontinued operations	—	—	—	—	—	—	–22	—	–22	—
Adjusted operating income	**396**	**293**	**11**	**80**	**301**	**212**	**–91**	**–92**	**617**	**493**

[1] EBITDA is earnings before interest, tax, depreciation and amortization.

Reconciliation of segment assets to total assets in CHF m	**31.12.2022**	31.12.2021
Segment assets	4 347	4 694
Segment assets reported as assets held for sale	49	107
Corporate assets reported as assets held for sale	1	2
Segment assets of discontinued operations reported as assets held for sale	—	719
Corporate assets without cash	1 082	1 088
Cash and cash equivalents	394	415
Short-term deposits	324	12
Financial instruments with positive fair values	2	1
Total Assets	**6 199**	**7 038**

	Sales[1]		Non-current assets [2]	
in CHF m	**2022**	2021	**31.12.2022**	31.12.2021
EMEA	2 122	1 888	1 780	1 975
of which Germany	*636*	*533*	*1 074*	*1 122*
of which Switzerland	*37*	*28*	*450*	*355*
of which MEA	*364*	*320*	*29*	*22*
North America	931	692	719	903
of which USA	*870*	*649*	*719*	*889*
Latin America	631	487	157	171
of which Brazil	*308*	*227*	*84*	*101*
Asia / Pacific	1 514	1 305	682	711
of which China	*572*	*479*	*312*	*291*
of which India	*310*	*262*	*208*	*232*
Total	**5 198**	**4 372**	**3 338**	**3 760**

[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 2022 amounted to CHF 50 million (2021: CHF 48 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. As a result, the related 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 3 January 2022, Clariant sold the Business Unit Pigments to a consortium composed of the US-based SK Capital Partners and the German Heubach Group. The total consideration of the sale, net of cash transferred, net of the 20% rolled over into the newly created group, and net of the vendor loan, amounted to CHF 579 million. The after-tax gain amounted to CHF 210 million. See table below.

in CHF m	2022
Total cash proceeds received as of 31 December 2022	614
Less cash and cash equivalents transferred	-35
Proceeds from the disposal of discontinued operations	**579**
Outstanding amounts	38
Equity investment	116
Total consideration for the sale	**733**
Net assets sold, including disposal-related expenses	-449
Gain on the disposal from discontinued operations	**284**
Effect of the reclassification of foreign exchange differences on previously held net investments in foreign entities	-75
Gain on the disposal from discontinued operations before taxes	**209**
Taxes (current and deferred)	1
Gain on the disposal from discontinued operations after taxes	**210**

For a description of the Business Units please refer to note 1.25.

Other assets held for sale

In April 2022, Clariant completed the divestment of its 50% stake in the joint venture that owns Scientific Design Company. The total consideration for the sale amounted to CHF 129 million, and the gain realized on the transaction amounted to CHF 22 million. This investment in associate was reported under held for sale in 2021 for an amount of CHF 107 million.

In October 2022, Clariant entered into an agreement to divest its North America Land Oil business to Dorf Ketal, India. In accordance with IFRS 5, the assets and liabilities of that business have been valued at their fair value less cost to sell and reclassified to held for sale in the financial report. They represent a net amount of CHF 11 million at the end of 2022. An impairment of CHF 233 million was recognized in the 2022 income statement.

In August 2022, Clariant entered into an agreement to divest its Quats business to Global Amines Company, Singapore, a 50/50 joint venture owned by Clariant and Wilmar. According to IFRS 5, the assets and liabilities of that business have been reclassified to Held for Sale in the financial report and represent an amount of CHF 33 million per end of 2022. The agreed sales price, subject to standard purchase price adjustment mechanism, is set at USD 113 million.

Clariant considers it highly probable that both the North America Land Oil business and the Quats business will be sold within the next twelve months.

Assets held for sale amounted to CHF 50 million as of 31 December 2022 and mainly related to the assets pertaining to the Quats business and to the North American Land Oil business expected to be sold in 2023 (2021: CHF 2 million) of which CHF 26 million of Property, Plant and Equipment, CHF 19 million of inventories and CHF 6 million of Right-of-Use assets and the associated liabilities of a similar amount. Intangibles reclassified to other assets held for sale were fully depreciated.

DISCONTINUED OPERATIONS in CHF m	Plastics & Coatings (discontinued) [1]		Corporate		Total discontinued operations	
	2022	2021	**2022**	2021	**2022**	2021
Sales	—	912	—	—	—	912
Operating expenses	–10	–802	–6	–21	–16	–823
Income from associates and joint ventures	—	28	—	—	—	28
Restructuring (see note 27)	—	2	10	–5	10	–3
Operating result	**–10**	**140**	**4**	**–26**	**–6**	**114**
Financial result	—		-1		–1	2
Result from discontinued operations before taxes	**-10**		**3**		**–7**	**116**
Taxes	—		4		4	–35
Result from discontinued operations after taxes	**-10**		**7**		**-3**	**81**
Gain on the disposal of discontinued operations	219		—		219	—
Taxes (current and deferred)	1		—		1	—
Net result from discontinued operations	**210**		**7**		**217**	**81**
Currency translation differences of discontinued operations					76	–9
Other items					—	4
Other comprehensive income/loss from discontinued operations	**—**	**—**	**—**	**—**	**76**	**–5**
Operating cash flows	**—**	–17	**—**	–9	—	–26
thereof: payments for restructuring	**—**	–9	**—**	—	—	–9
Investing cash flows	**—**	–27	**—**	—	—	–27
Total cash flow	**—**	**–44**	**—**	**–9**	**—**	**–53**
Cash flow from disposals:						
Gross proceeds	768	—	—	—	768	—
Less cash and cash equivalents transferred	–35	—	—	—	–35	—
Less equity investment	–116	—	—	—	–116	—
Less outstanding amounts	–38	—	—	—	–38	—
Net proceeds from disposal	**579**	**—**	**—**	**—**	**579**	**—**
Net assets held for sale:						
Property, plant and equipment		192	—	—	—	192
Right-of-use assets		12	—	—	—	12
Intangible assets		30	—	—	—	30
Investments in associates and joint ventures		32	—	—	—	32
Deferred and Income tax assets		22	—	—	—	22
Prepaid pension assets		1	—	—	—	1
Inventories		234	—	—	—	234
Trade receivables		148	—	—	—	148
Other current assets		48	—	—	—	48
Total assets held for sale	**—**	**719**	**—**	**—**	**—**	**719**
Trade payables and other liabilities		–137	—	—	—	–137
Retirement benefit obligations		–37	—	—	—	–37
Provisions		–59	—	—	—	–59
Lease liabilities		–7	—	—	—	–7
Current financial debts		–7	—	—	—	–7
Total liabilities directly associated with assets held for sale	**—**	**–247**	**—**	**—**	**—**	**–247**
Total net assets held for sale	**—**	**472**	**—**	**—**	**—**	**472**

[1] Including the Business Unit Pigments for 12 months in 2021

26. ACQUISITIONS

Attapulgite business assets

On 31 October 2022, Clariant acquired from BASF its US-based attapulgite business assets by way of an asset deal for a preliminary consideration of USD 60 million. This acquisition pertains to the Business Unit Functional Minerals.

The provisional fair values of the identified assets and liabilities acquired and the resulting preliminary goodwill presented are as follows:

in CHF m	2022
Total consideration for purchase	**60**
Recognized amounts of identifiable assets and liabilities assumed:	
Property plant, and equipment	63
Intangible assets	1
Inventories	14
Provisions	-19
Fair value of net assets acquired (preliminary)	**59**
Goodwill (preliminary)	**1**

For this transaction, acquisition related costs of less than CHF 4 million, comprising M&A, legal costs and consulting, were recognized in Selling, general and administrative costs in 2022.

From the acquisition date up to the end of the year 2022, Clariant Corporation reported net sales of CHF 5 million and an operating result of CHF 0.5 million.

If the acquisition had occurred on 1 January 2022, estimated Group sales would have been CHF 27 million higher and the estimated operating result would have been CHF 2.5 million higher.

Beraca Ingredientes Naturais S.A.

On 25 October 2021 Clariant acquired the remaining 70 % of the shares of the Brazilian Personal Care company Beraca Ingredientes Naturais S.A. from the company's founder-owners. The company is one of the foremost producers of natural ingredients for the Personal Care industry and is based in the Amazonas region. This acquisition pertains to the Business Unit Industrial & Consumer Care Services (ICS).

Clariant has been holding 30 % of the shares since 2015 and is now a 100 % owner. The shareholding was previously accounted for at equity and the transaction is treated as a step acquisition. Since the acquisition date, Beraca Ingredientes Naturais S.A. has been fully consolidated in Clariant's financial statements. The summary of the financial impact of consolidating the company in the accounts at the acquisition date, using the fair values of identified assets and liabilities, is as reported below.

As part of the accounting for the business combination the 30% shareholding previously held was revalued to fair value, which resulted in a one-time gain of CHF 9 million, recorded in Selling, general and administrative costs in the 2021 income statement.

Goodwill incurred in the acquisition refers to expected cost and supply chain synergies and better market access and remained unchanged.

The acquired intangible assets comprise mainly trademarks and developed technology.

in CHF m	2021
Cash consideration fo the acquisition in 2021	33
Less cash and cash equivalents received	-2
Total cash outflow for the acquisition in 2021	**31**
Fair value of shareholdings previously owned	13
Total consideration for purchase	**44**
Recognized amounts of identifiable assets and liabilities assumed:	
Property plant, and equipment	2
Intangible assets	12
Inventories	3
Receivables	5
Other assets and liabilities	–3
Fair value of net assets acquired	**19**
Goodwill	**25**

For this acquisition, costs of less than CHF 1 million, comprising M&A, legal costs and tax advisory and consulting charges, were recognized in »Selling, general and administrative costs« in 2021.
From the acquisition date up to the end of the year 2021, Beraca Ingredientes Naturais S.A. reported net sales of CHF 3 million and an operating loss of CHF 1 million, including CHF 1 million of depreciation and amortization.

If the acquisition had occurred on 1 January 2021, the 2021 Group sales would have been CHF 12 million higher, and the 2021 operating result would have been CHF 6 million higher.

Joint venture Clariant IGL Specialty Chemicals Private Ltd

On 1 July 2021, Clariant and India Glycos Ltd (IGL) established a joint venture for ethylene oxide derivatives from renewable sources, Clariant contributing 51 % to the joint venture and IGL 49 %. As Clariant will exercise control over the joint venture, it is consolidated in Clariant's financial accounts and accounted for as a business combination.

The joint venture is a combination of IGL's business with bio-ethylene oxide derivatives from renewable sources and Clariant's ICS activities in India, Sri Lanka, Bangladesh, and Nepal. It comprises a multipurpose plant in Kashipur, India including an alkoxylation plant. This acquisition pertains to the Business Unit Industrial & Consumer Care Services (ICS). Since the initiation of the joint venture, Clariant IGL SC is fully consolidated in Clariant's financial statements. The summary of the financial impact of consolidating the joint venture in the accounts at the acquisition date, using the fair values of identified assets and liabilities is as reported below.

The acquired intangible assets comprise mainly customer relationships and vendor contracts.

in CHF m	2021
Total cash outflow for the acquisition in 2021	58
Total consideration for purchase	**58**
Recognized amounts of identifiable assets and liabilities assumed:	
Property plant, and equipment	47
Intangible assets	19
Deferred tax assets	9
Inventories	9
Receivables	10
Financial debt	–23
Pension plan liabilities	–1
Other assets and liabilities	–1
Fair value of net assets acquired	**69**
Non-controlling interests	–46
Goodwill	**35**

For this transaction, acquisition-related costs of less than CHF 1 million, comprising M&A, legal costs, and consulting, were recognized in Selling, general and administrative costs in 2021. Goodwill incurred in the acquisition referred to better access to important materials, in addition to expansion of the product portfolio and business know-how. Goodwill remained unchanged.

From the acquisition date up to the end of the year 2021, Clariant IGL Specialty Chemicals Inc. reported net sales of CHF 71 million and an operating result of CHF 9 million, including CHF 2 million of depreciation and amortization. This result includes the above-mentioned items of a one-time nature, which were incurred in connection with the takeover by Clariant. If the acquisition had occurred on 1 January 2021, the 2021 Group sales would have been CHF 54 million higher, and the 2021 operating result would have been CHF 8 million higher.

Bentonite mining activities

In 2022 an additional payment of CHF 4 million was made related to the acquisition of Bentonite mining activities in China acquired in 2020.

27. RESTRUCTURING, IMPAIRMENT, AND TRANSACTION-RELATED COSTS

in CHF m	2022	2021
Restructuring income/expenses	**–51**	**1**
Payments for restructuring	–32	–38
Impairment loss	**–462**	**–1**
thereof charged to inventories (see note 11)	–2	—
thereof charged to PPE (see note 5)	–236	–1
thereof charged to intangible assets (see note 6)	–224	—
Transaction-related and other exceptional items	**–67**	**–77**
Total restructuring, impairment, transaction-related and other exceptional items	**–580**	**–77**
thereof reported under discontinued operations	–13	–24
Total continuing operations	**–567**	**–53**

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 2022, Clariant recorded an expense from the creation and reversal of restructuring provisions in the amount of CHF 51 million (2021: income CHF 1 million).

Clariant reports in Continuing Operations a net increase in restructuring provisions in the amount of CHF 61 million in 2022, compared to an income of CHF 4 million in 2021 from two main initiatives. In June 2022, Clariant announced changes to its leadership and organizational structure as part of the Company's ongoing initiatives to implement its purpose-led strategy and cultural transformation. The implementation of this new operating model resulted in total restructuring charges of CHF 49 million in 2022.

Additional measures were initiated in the global functions to further increase efficiency in service delivery by focusing on customer needs as well as centralization and automation of processes. Restructuring provisions of CHF 12 million were booked for these efficiency initiatives.

In addition in Discontinued Operations, an income from the change in restructuring provisions in the amount of CHF 10 million in 2022 was recorded, compared to an expense of CHF 3 million in 2021 for the rightsizing program.

Impairment. The impairment losses recorded in 2022 concerned mainly the North America Land Oil business (CHF 233 million), the Podari bio-ethanol plant (CHF 220 million) and the Ukraine assets (CHF 5 million). The ones recognized in 2021 relate mainly to properties, plants and equipment in the US, China and Italy.

Transaction-related and other exceptional items comprise expenses incurred in connection with the acquisition or disposal projects and corporate initiatives.

The total amount pertaining to continuing operations, CHF 567 million of restructuring, impairment, transaction-related costs, and other items (2021: CHF 53 million) is reported in the income statement from continuing operations as follows: CHF 468 million in cost of goods sold (2021: CHF 7 million), CHF 89 million in selling, general and administrative costs (2021: CHF 47 million), and CHF 10 million in Research & Development costs (2021: income of CHF 1 million).

28. FINANCE INCOME AND COSTS

FINANCE INCOME		
in CHF m	**2022**	2021
Interest income	9	11
thereof interest on loans, receivables and deposits	*9*	*11*
Other financial income	9	13
Total finance income	**18**	**24**

FINANCE COSTS		
in CHF m	**2022**	2021
Interest expense	–55	–62
thereof effect of discounting of non-current provisions	*–2*	*–3*
thereof net interest component of pension provisions	*–7*	*–8*
thereof interest on lease liabilities	*–11*	*–11*
Other financial expenses	–9	–8
Total finance costs before currency result	**–64**	**–70**
Currency result, net	–21	2
Total finance costs	**–85**	**–68**
thereof reported under discontinued operations (see note 25)	–1	2
Total continuing operations	**–84**	**–70**

Other financial expenses include bank charges and miscellaneous financial expenses.

In 2022 and 2021, 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, pertains to financial debts measured at amortized costs.

Interest costs capitalized on qualifying assets for 2022 were CHF 2 million (2021: CHF 3 million).

29. 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).

	2022	2021
Net income attributable to shareholders of Clariant Ltd, undiluted and diluted in CHF m		
Continuing operations	–133	267
Discontinued operations	217	77
Total	**84**	**344**
Weighted-average number of shares outstanding		
As per 1 January	329 336 789	329 517 644
Effect of transactions with treasury shares on weighted-average number of shares outstanding	–172 203	–180 855
Weighted-average number of shares outstanding at 31 December	**329 164 586**	**329 336 789**
Adjustment for granted Clariant shares	1 606 420	2 053 495
Weighted-average diluted number of shares outstanding at 31 December	**330 771 006**	**331 390 284**
Basic earnings per share attributable to shareholders of Clariant Ltd (CHF/share)		
Continuing operations	–0.40	0.81
Discontinued operations	0.66	0.23
Total	**0.26**	**1.04**
Diluted earnings per share attributable to shareholders of Clariant Ltd (CHF/share)		
Continuing operations	–0.40	0.81
Discontinued operations	0.66	0.23
Total	**0.26**	**1.04**

The dilution effect is triggered by the effect of Clariant shares that have been granted as part of the share-based payment plan but have not yet vested. To calculate this dilutive potential, it is assumed that they vested on 1 January of the respective period. The effect of the services still to be rendered during the vesting period is taken into consideration.

Diluted earnings per share are calculated by adjusting the weighted-average number of ordinary shares outstanding to assume conversion of all dilutive potential ordinary shares.

In 2022, Clariant made a cash distribution of CHF 0.40 per share to its shareholders out of the share capital, reducing the nominal value from CHF 3.00 to CHF 2.60 per share (see note 17).

30. 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 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	
	31.12.2022	31.12.2021	**31.12.2022**	31.12.2021	**31.12.2022**	31.12.2021
Interest rate-related instruments						
Interest rate swaps	—	—	—	—	—	—
Cross-Currency Swaps	150	364	—	—	–25	–22
Currency-related instruments						
Forward foreign exchange rate contracts	66	413	2	1	—	—
Total derivative financial instruments	**216**	**777**	**2**	**1**	**–25**	**–22**

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	**31.12.2022**	31.12.2021
Breakdown by maturity:		
Up to one month after the balance sheet date	24	32
More than one and up to three months after the balance sheet date	42	263
More than three and up to twelve months after the balance sheet date	—	324
More than one and up to five years after the balance sheet date	150	158
Total derivative financial instruments	**216**	**777**

DERIVATIVE FINANCIAL INSTRUMENTS BY CURRENCY

in CHF m	**31.12.2022**	31.12.2021
USD	58	278
EUR	150	493
JPY	6	4
Others	2	2
Total derivative financial instruments	**216**	**777**

FINANCIAL INSTRUMENTS EFFECTIVE FOR HEDGE-ACCOUNTING PURPOSES		
in CHF m	**31.12.2022**	31.12.2021
Contracts with negative fair values	–25	–22
Cross-Currency Swaps	**–8**	**–5**
Notional amount (EUR)	50	50
Maturity date	25.03.2024	25.03.2024
Hedge ratio	1:1	1:1
Change in fair value since 1 January	–3	–3
Change in fair value of hedged item	3	3
Cross-Currency Swaps	**–17**	**–9**
Notional amount (EUR)	103	103
Maturity date	25.09.2025	25.09.2025
Hedge ratio	1:1	1:1
Change in fair value since 1 January	–8	–6
Change in fair value of hedged item	8	6
Cross-Currency Swaps	**—**	**–8**
Notional amount (EUR)	—	200
Maturity date	—	29.07.2022
Hedge ratio	—	1:1
Change in fair value since 1 January	—	–8
Change in fair value of hedged item	—	8
Notional amount of hedges of net investments in foreign entities:		
Contracts with positive values	236	521
Borrowings denominated in foreign currencies	–236	–521
EUR amount	–236	–521
Hedge Ratio	1:1	1:1

Since 2015, Clariant issued various certificates of indebtedness totaling EUR 1158 million, USD 277 million, and CHF 62 million (see note 18). During 2022, EUR 115 million was paid back (2021: EUR 138 million, USD 277 million and CHF 62 million). As per 31 December 2022, certificates of indebtedness totaling EUR 543 million are recorded.

As per 31 December 2022, EUR 240 million was designated as a hedge of a net investment in some of Clariant's European subsidiaries (2021: EUR 505 million).

The foreign exchange rate gain resulting from the hedge of net investments amounted to CHF 20 million for 2022 (2021: CHF 22 million) and is recorded in the cumulative translation difference in shareholders' equity.

The hedge effectiveness is assessed at the beginning of the hedging relationship by way of 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 the 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 that is not matched by the loan, as well as on differences in critical terms between the interest rate/cross-currency swaps and loans.

The cross-currency Basis Spread as per End of December 2022 was CHF –180 943 (2021: –100 748).

There was no ineffectiveness during 2022 and 2021 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.

31. EMPLOYEE PARTICIPATION PLANS

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 next review of the target achievements (vesting criteria) under this plan will be held in summer 2023, and vesting is scheduled to take place in September 2023. Target achievement reviews and vesting will continue on an annual basis for all subsequent grants.

For the first time in 2013, the Performance Share Unit (PSU) Plan was introduced for all senior managers with a three-year vesting period. The last grant under this plan took place in September 2018. Performance targets for this grant were met and granted PSUs vested in September 2021.

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.

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 number of shares.

In 2022, CHF 8 million was debited to the income statement for equity-settled share-based payments (2021: income of CHF 12 million).

As of 31 December 2022, the total carrying value of liabilities arising from equity-settled share-based payments, entirely recognized in equity, is CHF 21 million (2021: CHF 22 million).

SHARES FOR MEMBERS OF MANAGEMENT AND THE EXECUTIVE COMMITTEE/EXECUTIVE STEERING COMMITTEE

Base year	Granted	Vesting in		Fair value at grant date	**Number 31.12.2022**	Number 31.12.2021
2018	2018	2021		23.58	542	4 665
2019	2019	2022		15.91	—	785 275
2020	2020	2023		12.87	823 423	1 025 099
2021	2021	2024		19.20	3 891	3 891
2021	2021	2024		18.84	20 317	20 317
2021	2021	2024		18.34	1 000	1 000
2021	2021	2024		13.64	904 728	1 154 066
2022	2022	2025		16.07	3 500	—
2022	2022	2025		17.63	14 862	—
2022	2022	2025		17.79	51 220	—
2022	2022	2025		14.02	723 170	—
Total					**2 546 653**	**2 994 313**

	Weighted-average exercise price	Shares 2022	Weighted-average exercise price	Shares 2021
Shares outstanding at 1 January	14.03	2 994 313	18.82	2 395 698
Granted		878 944		1 234 206
Exercised / distributed		–265 178		–349 886
Cancelled / forfeited		–1 061 426		–285 705
Outstanding at 31 December	**13.66**	**2 546 653**	**14.03**	**2 994 313**
Fair value of shares outstanding in CHF		34 794 843		42 010 204

The fair value of shares granted during 2022 is CHF 13 million (2021: CHF 16 million), calculated based on market value of shares at the grant date.

No options were granted in 2022 and 2021.

32. PERSONNEL EXPENSES

in CHF m	2022	2021
Wages and salaries	–766	–819
Social welfare costs	–156	–174
Shares and options granted to directors and employees	–8	–12
Pension costs – defined-contribution plans	–18	–22
Pension costs – defined-benefit plans	–38	–39
Total personnel expenses	**–986**	**–1 066**
thereof reported under discontinued operations	—	133
Total continuing operations	**–986**	**–933**

33. 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 Steering 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/ Executive Steering 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 is 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 2022 of these services is less than CHF 1 million (2021: 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 two (2021: approximately four).

The fourth group of related parties is all companies pertaining to the SABIC Group, which 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	**2022**	2021
Income from the sale of goods to related parties	101	51
thereof to joint ventures	*26*	*9*
thereof to associates	*48*	*11*
thereof to SABIC companies	*27*	*31*
Income from the rendering of services to related parties	67	54
thereof to joint ventures	*31*	*32*
thereof to associates	*36*	*22*
Expenses from the purchase of goods from related parties	–91	–33
thereof from joint ventures	*–50*	*–19*
thereof from associates	*–36*	*–14*
thereof from SABIC companies	*–5*	*—*
Expenses from services rendered by related parties	–201	–261
thereof by joint ventures	*–30*	*–24*
thereof by associates	*–171*	*–237*
Expense from the purchase of property, plant and equipment from related parties	–5	–5
thereof from associates	*–5*	*–5*
Expense from lease contracts with related parties	–6	–6
thereof with associates	*–6*	*–6*

PAYABLES AND RECEIVABLES WITH RELATED PARTIES

in CHF m	**31.12.2022**	31.12.2021
Receivables from related parties	26	26
thereof from joint ventures	*6*	*12*
thereof from associates	*18*	*7*
thereof from SABIC companies	*2*	*7*
Payables to related parties	39	55
thereof to joint ventures	*8*	*7*
thereof to associates	*30*	*48*
hereof to SABIC companies	*1*	*—*
Loans to related parties	—	15
thereof to joint ventures	*—*	*—*
thereof to associates	*—*	*15*
Loans from related parties	1	1
thereof from associates	*1*	*1*

TRANSACTIONS WITH KEY MANAGEMENT

in CHF m	**2022**	2021
Salaries and other short-term benefits	11	9
Post-employment benefits	2	1
Share-based payments	4	3
Total	**17**	**13**

There are no outstanding loans by the Group to any members of the Board of Directors or Executice Steering Committee.

34. COMMITMENTS AND CONTINGENCIES

Guarantees. No guarantees on behalf of third parties were issued in 2022 and 2021.

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 nine years and other materials in 2022. This implies a total purchase commitment of about CHF 720 million (2021: CHF 925 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 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 that would likely have any material adverse effect in relation to its business, financial position, or results of operations.

A Clariant subsidiary in the United States has been named along with many other defendants in lawsuits involving per- and polyfluoroalkyl substances (PFASs). Clariant is monitoring the development of these cases, which relate to a line of business divested in 2013, and is defending all litigation matters related to PFAS. The initial trial on one of the PFASs litigation matters may occur no earlier than early 2023. As of this point in time, Clariant cannot assess if these litigation matters will have a material impact on Clariant's financial results.

Environmental risks. Clariant is exposed to environmental liabilities and risks relating to its past operations, principally with respect to remediation costs. Provisions for nonrecurring remediation costs are made when there is a legal or constructive obligation and the costs can be reliably estimated. IIt is difficult to estimate the future action required by Clariant, as well as the associated costs, to correct the environmental effects of prior disposal or release of chemical substances by Clariant or other parties 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.

35. EXCHANGE RATES OF PRINCIPAL CURRENCIES

The rates used to translate the consolidated balance sheets (closing rate) are:

	31.12.2022	31.12.2021
1 USD	0.92	0.91
1 EUR	0.99	1.03
1 BRL	0.18	0.16
1 CNY	0.13	0.14
100 INR	1.12	1.23
100 JPY	0.70	0.79

The sales-weighted average exchange rates used to translate the consolidated income statements and consolidated statements of cash flows are

	2022	2021
1 USD	0.96	0.92
1 EUR	1.01	1.08
1 BRL	0.19	0.17
1 CNY	0.14	0.14
100 INR	1.22	1.24
100 JPY	0.72	0.83

36. IMPORTANT SUBSIDIARIES

Country	Company name	Currency	Share-/ paid in capital (in thou-sands)	Partici-pation in %	Holding/ Finance/ Service	Sales	Production	Research
Argentina	Clariant (Argentina) SA, Buenos Aires	ARS	54 605	100.0		■	■	
Australia	Clariant (Australia) Pty Ltd, Notting Hill	AUD	1 902	100.0		■	■	
Brazil	Clariant S.A., São Paulo	BRL	276 953	100.0	■	■	■	■
	Companhia Brasileira de Bentonita Ltda, Vitoria da Conquista	BRL	17 470	100.0		■	■	
	Consórcio CCPN, Niteroi	BRL	26 113	100.0		■	■	
	Beraca Ingredientes Naturais S.A.	BRL	18 158	100.0		■	■	■
Canada	Clariant (Canada) Inc., Toronto	CAD	10 415	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 Catalysts (Nanjing) Co., Ltd., Nanjing	CNY	321 822	100.0				
	Clariant Chemicals (China) Ltd., Shanghai	CNY	210 014	100.0		■	■	■
	Clariant Chemicals (Huizhou) Ltd., Daya Bay, Huizhou	CNY	523 560	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	166 431	100.0		■	■	
	Clariant Bentonite (Jiangsu) Co., Ltd., Zhenjiang	CNY	79 058	100.0		■	■	
	Clariant Chemicals Technology (Shanghai) Ltd., Shanghai	CNY	170 286	100.0		■	■	■
	Clariant Specialty Chemicals (Jiaxing) Co., Ltd., Jiangxing	CNY	213 552	100.0		■	■	
Colombia	Clariant Colombia S.A., Cota (Cundinamarca)	COP	2 265	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	■			
Germany	Clariant Produkte (Deutschland) GmbH, Frankfurt a.M.	EUR	9 348	100.0	■	■	■	■
	Clariant Plastics & Coatings (Deutschland) GmbH	EUR	149	100.0	■	■	■	■
	Clariant SE, Frankfurt a.M.	EUR	916	100.0		■		
	Clariant Verwaltungsgesellschaft mbH, Frankfurt a.M.	EUR	2 560	100.0	■			
	Clariant Vierte Chemie GmbH	EUR	30	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	■			
Greece	Süd-Chemie Hellas Monoprosopi EPE, Adamantas, Milos	EUR	548	100.0		■	■	
India	Clariant India Private Limited, Navi Mumbai	INR	10 829	100.0	■	■	■	■
	Süd-Chemie India Pvt. Ltd., Ernakulam	INR	9 623	50.0		■		■
	Clariant IGL BioEthoxylates Private Limited	INR	220	51.0		■	■	
Indonesia	PT. Clariant Indonesia, Tangerang	IDR	267 577	100.0	■	■	■	
	PT. Clariant Kujang Süd-Chemie Catalysts, Cikampek	USD	3 447	76.9		■	■	
	PT. Clariant Specialties Indonesia, Tangerang Banten	IDR	4 803	100.0		■		
	PT. Clariant Adsorbents Indonesia, Sukabumi	IDR	12 375	100.0		■	■	
Italy	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		■	■	
Japan	Clariant (Japan) K.K., Tokyo	JPY	450	100.0		■	■	■
	Clariant Catalysts (Japan) K.K., Tokyo	JPY	544	61.5	■	■	■	■
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 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	■	■	■	■
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	■	■	■	
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				

Country	Company name	Currency	Share-/ paid-in capital (in thousands)	Participation in %	Holding/ Finance/ Service	Sales	Production	Research
Qatar	Clariant Qatar W.L.L., Mesaieed	QAR	30 000	65.0		■	■	
Romania	Clariant Products Ro Srl, Bucarest	RON	105 261	100.0		■	■	
Singapore	Clariant (Singapore) Pte. Ltd., Singapore	SGD	21 500	100.0	■	■	■	
	Clariant South East Asia Pte. Ltd., Singapore	SGD	1 560	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	■	■	■	
Spain	Clariant Ibérica Producción S.A., Sant Joan Despi	EUR	6 023	100.0	■	■	■	■
Sweden	Clariant Production Sweden AB, Mölndal	SEK	500	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				
	Clariant Produkte (Schweiz) AG, Muttenz	CHF	5 000	100.0	■			
	Clariant Additives (Switzerland) AG, Muttenz	CHF	5 000	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		■		■
Turkey	Clariant (Türkiye) A.S., Ataşehir/İstanbul	TRY	17 538	100.0		■	■	
UAE	Clariant (Gulf) FZE, Jebel Ali, Dubai	AED	1 000	100.0		■		
USA	Clariant Corporation, Charlotte, NC	USD	749 500	100.0	■	■	■	■

[1] The participation in % reflects the capital and voting rights in %.

37. EVENTS SUBSEQUENT TO THE BALANCE SHEET DATE

There were no major events subsequent to the balance sheet date.

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Clariant Ltd, Muttenz

Statutory Auditor's Report

to the General Meeting on the

Consolidated Financial Statements 2022

KPMG AG

Basel, 1 March 2023

Statutory Auditor's Report

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 sheet as at 31 December 2022 and the consolidated statement of comprehensive income, consolidated statement of changes in equity and consolidated statement 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 accompanying consolidated financial statements give a true and fair view of the consolidated balance sheets of the Group as at 31 December 2022, its consolidated income statements, its consolidated statements of comprehensive income, its consolidated statements of changes in equity and its consolidated statements of cash flows for the year then ended in accordance with 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 Standards on Auditing (SA-CH). 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, together with the requirements of the Swiss audit profession, as well as the International Ethics Standards Board for Accountants' International Code of Ethics for Professional Accountants (including International Independence Standards) (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.

Key Audit Matters

TIMING OF REVENUE RECOGNITION

RECOVERABILITY OF GOODWILL

PODARI ASSET IMPAIRMENT

Key audit matters are those matters that, in our professional judgment, 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.

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TIMING OF REVENUE RECOGNITION

Key Audit Matter

The Group's revenue for the financial year 2022 amounted to CHF 5,198 million and was mainly related to the sale of specialty chemicals.

Revenue is recognized when a performance obligation is satisfied by transferring control over a promised good or service. Due to the Group's business model, over time revenues are currently not material.

Revenue is a key performance indicator and therefore an internal and external stakeholders' focus. Consequently, there might be pressure to achieve forecasted results.

Particular attention is required to ensure revenue is recognized in the correct accounting period. Thus, we identified timing of revenue recognition before the balance sheet date as a key audit matter.

Our response

Our audit procedures included, amongst others, the following:

- obtained an understanding of the overall process over revenue recognition and tested key internal controls over the timing of revenue recognition. Due to the high reliance of revenue recognition on IT, we evaluated the integrity of the general IT control environment;
- used audit technology to identify sales at risk of being recognized in the incorrect accounting period around year-end, and to corroborate management's assessment. We traced samples of sales to related underlying documents;
- recalculated the estimated shipping terms, which are the basis of the revenue accrual;
- selected credit notes and sales reversals recorded after the balance sheet date and traced these selected items to supporting documents.

We also considered whether disclosures over revenue recognition in the consolidated financial statements are appropriate.

For further information on TIMING OF REVENUE RECOGNITION refer to the following:

- Note 1: Accounting Policies

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RECOVERABILITY OF GOODWILL

Key Audit Matter

Intangible assets in the consolidated financial statements of the Group include goodwill in the amount of CHF 870 million. Goodwill accounts for 14.0% of total assets and thus has a material impact on the company's net assets. Goodwill must be tested for impairment annually and whenever there is an indication that goodwill may be impaired.

There is a risk of non-recoverability of the Group's significant goodwill balance, in particular relating to the Catalysts business unit, which amounts to CHF 612 million, due to the ongoing worldwide economic recession as well as the increasing cost due to inflation and scarcity of supply. This resulted in weaker demand in certain markets and increased pressure on the prices and margins. Due to the inherent uncertainty involved in forecasting and discounting future cash flows, which are the basis of the assessment of recoverability, this is one of the key judgmental areas that our audit is concentrated on.

Our response

Our audit procedures included, amongst others, evaluating the methodical and mathematical accuracy of the model used for the impairment tests, the appropriateness of the assumptions used, and the methodology used by management to prepare its cash flow forecasts. We used our own valuation specialists to support our procedures.

For all of cash generating units (CGUs) including goodwill, we also performed the following audit procedures:

- assessed the reasonableness of the plans and forecasts by back-testing historical forecasts to actual results;
- compared business plan data against the latest Board approved plans and management approved forecasts;
- challenged the robustness of the key assumptions used to determine the recoverable amount, including identification of the CGUs, forecast cash flows, long-term growth rates and the discount rates based on our understanding of the commercial prospects of the related assets, and by comparing them with publicly available data;
- conducted sensitivity analysis, taking into account the historical forecasting accuracy of the Group;
- compared the sum of projected discounted cash flows to the market capitalisation of the Group; and
- recalculated the difference between the carrying value and the recoverable amount to assess the headroom.

We also considered the appropriateness of disclosures in relation to impairment sensitivities in the consolidated financial statements.

For further information on RECOVERABILITY OF GOODWILL refer to the following:

- Note 1: Accounting Policies
- Note 6: Intangible Assets

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PODARI ASSET IMPAIRMENT

Key Audit Matter	Our response
On 12 December 2022 the Group announced an asset impairment of their bioethanol plant in Podari, Romania in the amount of CHF 220 million. The plant began production in the second quarter of 2022. Since the targeted yields and other operational parameters for an industrial scale have not been achieved as planned, the Group has performed a financial assessment of the plant as part of the annual impairment testing. As a result of this analysis, the Group has concluded that an impairment to the current asset value of asset in the above amount needs to be recognized. Due to the inherent uncertainty involved in forecasting and discounting future cash flows and the significant management judgment involved, we have selected the Podari asset impairment as a Key Audit Matter.	Our audit procedures included, amongst others, evaluating the methodical and mathematical accuracy of the model used for the impairment test, the appropriateness of the assumptions used, and the methodology used by management to prepare its cash flow forecast. We used our own valuation specialists to support our procedures. We also performed the following audit procedures: — assessed the reasonableness of the plans and forecasts by comparing them against customer contract, historical expenses and inquiries with management; — compared business plan data against the latest Board approved plans and management approved forecasts; — challenged the robustness of the key assumptions used to determine the recoverable amount, including forecast cash flows, long-term growth rate and the discount rate based on our understanding of the commercial prospects of the related assets and by comparing them with publicly available data; — conducted sensitivity analysis; — recalculated the difference between the carrying value and the recoverable amount to assess the impairment. We also considered the appropriateness of disclosures in relation to impairment sensitivities in the consolidated financial statements.

For further information on PODARI ASSET IMPAIRMENT refer to the following:

— Note 1: Accounting Policies
— Note 5: Property, Plant and Equipment

Other Matter

The consolidated financial statements of the Group for the year ended 31 December 2021 were audited by another auditor who expressed an unmodified opinion on those statements on 18 May 2022.

Other Information

The Board of Directors is responsible for the other information. The other information comprises the information included in the annual report, but does not include the consolidated financial statements, the stand-alone financial statements, the compensation report and the review on performance, people and planet of the company and our auditor's reports thereon.

Our opinion on the consolidated financial statements does not cover the other information 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 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.

Board of Directors' Responsibilities 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 SA-CH 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.

As part of an audit in accordance with Swiss law, ISAs and SA-CH, we exercise professional judgment and maintain professional skepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the consolidated financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Group's internal control.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made.
- Conclude on the appropriateness of the Board of Directors' use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Group's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the consolidated financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Group to cease to continue as a going concern.
- Evaluate the overall presentation, structure and content of the consolidated financial statements, including the disclosures, and whether the consolidated financial statements represent the underlying transactions and events in a manner that achieves fair presentation.

— Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Group to express an opinion on the consolidated financial statements. We are responsible for the direction, supervision and performance of the Group audit. We remain solely responsible for our audit opinion.

We communicate with the Board of Directors or its relevant committee regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

We also provide the Board of Directors or its relevant committee with a statement that we have complied with relevant ethical requirements regarding independence, and communicate with them all relationships and other matters that may reasonably be thought to bear on our independence, and where applicable, actions taken to eliminate threats or safeguards applied.

From the matters communicated with the Board of Directors or its relevant committee, we determine those matters that were of most significance in the audit of the consolidated financial statements of the current period and are therefore the key audit matters. We describe these matters in our auditor's report, unless law or regulation precludes public disclosure about the matter or when, in extremely rare circumstances, we determine that a matter should not be communicated in our report because the adverse consequences of doing so would reasonably be expected to outweigh the public interest benefits of such communication.

Report on Other Legal and Regulatory Requirements

In accordance with article 728a para. 1 item 3 CO and PS-CH 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.

KPMG AG

Martin Rohrbach
Licensed Audit Expert
Auditor in Charge

Cyrill Kaufmann
Licensed Audit Expert

Basel, 1 March 2023

KPMG AG, Grosspeteranlage 5, CH-4052 Basel

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Review of trends

FIVE-YEAR GROUP OVERVIEW 2018–2022

		2022[2]	**2021**[2]	**2020**[2]	2019[2]	2018
Segment sales	CHF m	**5 211**	**4 413**	**3 883**	**4 434**	**4 445**
Change relative to preceding year						
in Swiss francs	%	18	14	–12	—	—
in local currency	%	24	15	–5	3	—
Group sales[1]	CHF m	**5 198**	**4 372**	**3 860**	**4 399**	**4 404**
Change relative to preceding year						
in Swiss francs	%	18.9	13.3	–12.3	—	—
in local currency	%	24	15	–5	3	—
Adjusted operating income	CHF m	**617**	**493**	**354**	**444**	**480**
Change relative to preceding year	%	25	39	–20	–7	–29
as a % of sales		11.9	11.3	9.2	10.1	10.9
Operating income	CHF m	**72**	**440**	**317**	**165**	**348**
Change relative to preceding year	%	–84	39	92	–53	–30
as a % of sales		1.4	10.1	8.2	3.8	7.9
EBITDA	CHF m	**810**	**708**	**597**	**461**	**607**
Change relative to preceding year	%	14	19	30	–24	–25
as a % of sales		15.6	16.2	15.5	10.5	13.8
Adjusted EBITDA	CHF m	**893**	**760**	**623**	**740**	**739**
Change relative to preceding year	%	18	22	–16	—	–24
as a % of sales		17.2	17.4	16.1	16.8	16.8
Net income	CHF m	**127**	**373**	**825**	**38**	**356**
Change relative to preceding year	%	–66	–55	2 027	–89	18
as a % of sales		2.4	8.5	21.4	0.9	8.1
Investment in property, plant and equipment	CHF m	**209**	**362**	**288**	**273**	**237**
Change relative to preceding year	%	–42	26	5	15	–4
as a % of sales		4	8	7	6	5
Personnel costs[3]	CHF m	**986**	**1 066**	**1 264**	**1 431**	**1 457**
Change relative to preceding year	%	–8	–16	–12	–2	—
as a % of sales		19	24	–33	33	33
Employees at year-end	number	11 148	13 374	13 235	17 223	17 901
Change relative to preceding year	%	17	1	–23	–4	–1

[1] Including trading

[2] Continuing operations

[3] Including discontinued operations

Financial statements of Clariant Ltd, Muttenz

Balance sheets of Clariant Ltd

BALANCE SHEETS OF CLARIANT LTD at 31 December 2022 and 2021	Notes	31.12.2022 in CHF m	in %	31.12.2021 in CHF m	in %
Assets					
Current assets					
Cash and cash equivalents	3	137		110	
Short-term deposits	3	314		—	
Other short-term receivables	4	23		26	
Accrued income and prepaid expenses		3		1	
Total current assets		**477**	**12.2**	**137**	**3.2**
Non-current assets					
Loans to Group companies	5	1 898		2 517	
Other financial assets	6	39		—	
Shareholdings in Group companies	5	1 390		1 669	
Investments in associates and joint ventures	6	91		—	
Intangible assets		2		3	
Total non-current assets		**3 420**	**87.8**	**4 189**	**96.8**
Total assets		**3 897**	**100.0**	**4 326**	**100.0**
Liabilities and Equity					
Liabilities					
Current liabilities					
Other current non-interest-bearing liabilities	7	22		40	
Other current interest-bearing liabilities	8	367		638	
Current provisions		155		178	
Accrued expenses		3		5	
Total current liabilities		**547**	**14.0**	**861**	**19.9**
Non-current liabilities					
Non-current interest-bearing liabilities to third parties	13	875		967	
Total non-current interest-bearing liabilities	**13**	**875**	**22.5**	**967**	**22.4**
Total liabilities		**1 422**		**1 828**	
Equity					
Share capital	**9, 12**	**863**		**996**	
Reserves from capital contribution[1]	10, 12	1 304		1 304	
thereof from capital contribution reserves (other)		1 304		1 304	
Reserves from retained earnings[2]	10, 12	–1 264		–1 264	
Other statutory reserves	12	224		224	
Total statutory capital reserves	**12**	**264**		**264**	
Voluntary retained earnings	12	1 288		1 137	
Total reserves	**10, 12**	**1 552**		**1 401**	
Profit for the financial year		112		151	
Treasury shares	**11, 12**	**–52**		**–50**	
Total equity		**2 475**	**63.5**	**2 498**	**57.7**
Total equity and liabilities		**3 897**	**100.0**	**4 326**	**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 2022 due to distributions still amounting to approximately CHF 40 million). For further information, see also note 10 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 10 to the financial statements of Clariant Ltd.

Financial statements of Clariant Ltd, Muttenz

Income statements of Clariant Ltd

INCOME STATEMENTS OF CLARIANT LTD

for the years ended 31 December 2022 and 2021

	Notes	**2022** in CHF m	2021 in CHF m
Income from shareholdings in Group companies		181	278
Income from interest on loans to Group companies		38	46
Other financial income		6	7
Reversal of devaluations on shareholdings and other income related to Group Companies	5	—	151
Income from disposals of shareholdings and other income	5	247	13
Total income		**472**	**495**
Expenses			
Financial expenses		27	37
Administrative expenses		69	66
Devaluations of shareholdings and other expenses related to Group companies	5	182	200
Result from associates and joint ventures	6	25	—
Exchange rate differences net		51	29
Other expenses		5	9
Taxes		1	3
Total expenses		**360**	**344**
Profit for the financial year		**112**	**151**

Notes to the financial statements of Clariant Ltd

1. 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.

2. ACCOUNTING POLICIES

Income 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 the 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.

Loans. Unrealized exchange gains were reversed on loans.

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 statements of Clariant Ltd for issue on 1 March 2023. They will be subject to approval by the Annual General Meeting of Shareholders scheduled for 4 April 2023. Clariant Ltd has no employees, except the members of the Board of Directors of the Clariant Group.

Hidden reserves. No hidden reserves were released in the year 2022 (2021: CHF nil).

3. CASH AND CASH EQUIVALENTS AND SHORT-TERM DEPOSITS

Cash and cash equivalents amounted to CHF 137 million at the end of 2022, compared to CHF 110 million at the end of 2021, and comprise cash in hand denominated mainly in US dollar and in euro and, to a lesser extent, other currencies.

Short-term deposits amounted to CHF 314 million at the end of 2022, compared to CHF nil at the end of 2021 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 23 million at the end of 2022 compared to CHF 26 million at the end of 2021. They comprise third-party receivables of CHF nil (compared to CHF 1 million at the end of 2021) and intragroup receivables of CHF 23 million (compared to CHF 25 million at the end of 2021).

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., Clariant (Japan) KK and Clariant Corporation.

At the end of 2022, shareholdings in Group companies amounted to CHF 1 390 million compared to CHF 1 669 million at the end of 2021. After this review, no reversal of devaluation was recorded in 2022 (2021: CHF 151 million) in »Reversal of devaluations on shareholdings and other income related to Group Companies« and a devaluation of CHF 182 million (2021: CHF 200 million in »Devaluations of shareholdings and other expenses related to Group Companies« was recorded).

Loans to Group companies amounted to CHF 1898 million as at 31 December 2022 (CHF 2 517 million as at 31 December 2021).

The table below shows the shareholdings directly held by Clariant Ltd

Country	Company name		Capital interest (%)	Voting rights (%)	Capital interest (%)	Voting rights (%)
			2022	**2022**	**2021**	**2021**
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	0.00%	0.00%	0.00%	0.00%
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 (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	0.00%	0.00%	0.00%	0.00%
	Clariant Ibérica Produccion S.A.	El Prat de Llobregat	100.00%	100.00%	100.00%	100.00%
Sweden	Clariant Production Sweden AB	Mölndal	100.00%	100.00%	100.00%	100.00%
Switzerland	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	0.00%	0.00%	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 Important Subsidiaries of this report.

6. INVESTMENTS IN ASSOCIATES AND JOINT VENTURE

On 3 January 2022, Clariant completed the sale of its Pigments business to a consortium of Heubach and SK Capital. On the same day, Clariant rolled over CHF 116 million to retain a 20 % stake in the new holding company, alongside Heubach and SK Capital. Taking into acccount, the share of Clariant Ltd in the net result of 2022 of Heubach (CHF 25 million), the book value of this investment per end of December 2022 amounted to CHF 91 million.

On 1 December 2022, the final purchase price for the Pigments business was agreed upon between Clariant and SK Capital / Heubach. Under this agreement, Clariant received a vendor loan note in the amount of CHF 55 million (discounted to CHF 39 million as at 31 December 2022), falling due on 3 January 2029 at the latest.

Investments in associates and joint ventures are accounted for using the equity method.

7. OTHER CURRENT NON-INTEREST-BEARING LIABILITIES

Other current non-interest bearing liabilities amounted to CHF 22 million at the end of 2022 (2021: CHF 40 million). They comprise third-party liabilities of CHF 8 million (2021: CHF 17 million) and intragroup liabilities of CHF 14 million (2021: CHF 23 million).

Liabilities to other Group companies comprise shareholder costs payable to Clariant International Ltd.

8. OTHER CURRENT INTEREST-BEARING LIABILITIES

Other current interest-bearing liabilities amounted to CHF 367 million at the end of 2022 (2021: CHF 638 million). They comprise third party liabilities of CHF 278 million (2021: CHF 322 million) and intragroup liabilities of CHF 89 million (2021: CHF 316 million).

In 2022, five certificates of indebtedness in the amount of EUR 263 million with maturity in 2023 were reclassified to current financial debt.

Certificates of indebtedness issued in 2020 totaling EUR 115 million were repaid in 2022. On 28 April 2022, before its maturity, one certificate was partially repaid (EUR 13 million); the remaining part (EUR 15 million) was repaid at maturity on 23 May 2022. On that same date, another certificate of indebtedness with a nominal value of EUR 87 million reached maturity and was repaid.

On 26 September 2022, a bond issued in 2012 in the amount of CHF 175 million reached maturity and was repaid. On that same date, a new bond with a nominal value of CHF 175 million and maturity in 2027 was issued.

On 5 August 2021, certificates of indebtedness issued in 2016 in the amount of EUR 55 million (CHF 60 million) and USD 277 million (CHF 250 million) reached maturity and were repaid.

On 23 August 2021, two certificates of indebtedness issued in 2020 were repaid early (CHF 37 million, original maturity 2022; CHF 25 million, original maturity 2025).

On 22 November 2021, the certificate of indebtedness issued in 2020 with a notional amount of EUR 83 million (CHF 87 million) was repaid early (original maturity 2025).

Since 16 December 2016, Clariant Ltd has had an agreement for a CHF 445 million five-year multicurrency 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.

The intragroup liabilities comprise the cash pool accounts and current accounts between Group companies.

9. SHARE CAPITAL

Capital issued	**31.12.2022**	**31.12.2021**
Number of registered shares each with a par value of CHF 2.60 (2021: CHF 3.00)	331 939 199	331 939 199
In CHF m	863	996
Conditional capital	**31.12.2022**	**31.12.2021**
Number of registered shares each with a par value of CHF 2.60 (2021: CHF 3.00)	3 811 886	3 811 886
In CHF m	10	11

10. 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 of 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 that 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), while 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.

11. TREASURY SHARES

	2022	2021
Holdings at 1 January	**2 822 712**	**2 385 509**
Shares purchased at fair market value	238 862	657 207
Shares purchased on exercise of put options	200 000	200 000
Shares transferred to employees and Board of Directors	–339 176	–420 004
Holdings at 31 December	**2 922 398**	**2 822 712**

Each registered share has a par value of CHF 2.60 (2021: CHF 3.00)

The average price of shares bought in 2022 was CHF 17.22. In 2021, the average price of shares bought was CHF 19.03.

In 2022 and 2021 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».

12. RECONCILIATION OF EQUITY

in CHF m	Share capital	Statutory capital reserves		Other statutory reserves	Voluntary retained earnings	Treasury shares	Net income	**Total**
		from capital contribution [1]	from retained earnings[2]					
Balance 31 December 2021	**996**	**1 304**	**–1 264**	**224**	**1 137**	**–50**	**151**	**2 498**
Reduction of nominal value	–133					1		–132
Reclassification of profit carryforward to voluntary retained earnings					151		–151	0
Changes in treasury shares						–3		–3
Profit for the financial year							112	112
Balance 31 December 2022	**863**	**1 304**	**–1 264**	**224**	**1 288**	**–52**	**112**	**2 475**

[1] In 2012, the Swiss Federal Tax Administration confirmed qualifying capital contribution reserves of approximately CHF 1.7 billion (as per 31 December 2022 due to distributions still amounting to approximately CHF 40 million). For further information, see also note 10 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 10 to the financial statements of Clariant Ltd.

13. FINANCIAL LIABILITIES

in CHF m	Interest rate in %	Term	**Amount 31.12.2022**	Amount 31.12.2021
Non-current interest-bearing liabilities to third parties				
Straight bond	3.500	2012-2022	—	175
Certificate of indebtedness	mixed	2020-2022	—	122
Certificates of indebtedness	mixed	2015-2023	155	155
Certificate of indebtedness	6m EURIBOR +1.1	2016-2023	14	14
Certificate of indebtedness	1.137	2016-2023	29	29
Certificate of indebtedness	1.501	2016-2023	81	81
Straight bond	2.125	2014-2024	160	160
Certificate of indebtedness	1.194	2018-2024	104	104
Certificate of indebtedness	1.548	2018-2025	116	116
Certificate of indebtedness	6m EURIBOR + 0.95	2018-2025	60	60
Certificate of indebtedness	2.010	2016-2026	16	16
Straight bond	1.125	2019-2026	200	200
Straight bond (green bond)	2.717	2022-2027	175	—
Certificate of indebtedness	2.087	2018-2028	19	19
Total straight bonds and certificates of indebtedness			**1 129**	**1 251**
Other non-current interest-bearing liabilities to banks and other financial institutions			25	13
Other current interest-bearing liabilities to banks and other financial institutions			—	25
Other current interest-bearing liabilities to Group Companies			88	316
Total interest-bearing liabilities			**1 242**	**1 605**
Less: Other current interest bearing liabilities			–367	–638
Total non-current interest-bearing liabilities to third parties			**875**	**967**
Total non-current interest-bearing liabilities			**875**	**967**
Breakdown by maturity				
one to five years			856	948
more than five years			19	19
Total non-current interest-bearing liabilities			**875**	**967**

In 2022, five certificates of indebtedness in the amount of EUR 263 million with maturity in 2023 were reclassified to current financial debt.

Certificates of indebtedness issued in 2020 totaling EUR 115 million were repaid in 2022. On 28 April 2022, before its maturity, one certificate was partially repaid (EUR 13 million); the remaining part (EUR 15 million) was repaid at maturity on 23 May 2022. On that same date, another certificate of indebtedness with a nominal value of EUR 87 million reached maturity and was repaid.

On 26 September 2022, a bond issued in 2012 in the amount of CHF 175 million reached maturity and was repaid and on that same date, a new green bond with a nominal value of CHF 175 million and maturity in 2027 was issued.

On 23 August 2021, two certificates of indebtedness issued in 2020 were repaid early (CHF 37 million, original maturity 2022; CHF 25 million, original maturity 2025).

On 22 November 2021, the certificate of indebtedness issued in 2020 with a notional amount of EUR 83 million was repaid early (original maturity 2025).

14. CONTINGENT LIABILITIES

in CHF m	**Outstanding liabilities 31.12.2022**	Outstanding liabilities 31.12.2021
Outstanding liabilities as guarantees in favor of Group companies	440	702

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.

A Clariant subsidiary in the United States has been named along with many other defendants in lawsuits involving per- and polyfluoroalkyl substances (PFAS). Clariant is monitoring the development of these cases, which relate to a line of business divested in 2013, and is defending all litigation matters related to PFAS. The initial trial on one of the PFAS litigation matters may occur no earlier than early 2023. As of this point in time, Clariant cannot assess if these litigation matters will have a material impact on Clariant's financial results.

15. SHAREHOLDINGS OF MEMBERS OF THE BOARD OF DIRECTORS AND THE EXECUTIVE STEERING COMMITTEE

1. Board of Directors

SHARES HELD

Name	**Number of shares granted**[1]	**Value of shares granted in CHF**	Number of shares granted[2]	Value of shares granted[2] in CHF	**Number of privately held shares**	Number of privately held shares
	for 2022	**for 2022**	**for 2021**	**for 2021**	**for 2022**	**for 2021**
Günter von Au	16 667	300 000	16 817	300 000	90 798	73 981
Ahmed Mohammed Al Umar	6 667	120 000	—	—	—	—
Roberto Gualdoni	5 556	100 000	—	—	8 200	—
Thilo Mannhardt	5 556	100 000	5 606	100 000	9 445	3 839
Geoffery Merszei	5 556	100 000	5 606	100 000	17 249	11 643
Eveline Saupper	5 556	100 000	5 606	100 000	35 112	29 506
Naveena Shastri	5 556	100 000	—	—	—	—
Peter Steiner	5 556	100 000	5 606	100 000	32 612	27 006
Claudia Suessmuth Dyckerhoff	5 556	100 000	5 606	100 000	30 212	24 606
Susanne Wamsler	5 556	100 000	5 606	100 000	1 195 904	1 190 298[3]
Konstantin Winterstein	5 556	100 000	5 606	100 000	6 097 627	6 092 021
Abdullah Mohammed Alissa	—	—	6 727	120 000	—	12 667
Nader Alwehibi	—	—	5 606	100 000	—	3 839
Calum MacLean	—	—	5 606	100 000	—	11 643
Total	**73 333**	**1 320 000**	**73 998**	**1 320 000**	**7 517 159**	**7 481 049**

[1] The BoD mandate year runs from one AGM to the next AGM, which typically takes place in April. The final number of shares for the mandate year that began in 2022 will be defined prior to grant in 2023. The 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 18.00; Final allocation of shares with CHF 17.84; Total amount of shares granted for 2021 based on the assumed share price of CHF 18.00 as shown in the Compensation Report 2021 was 69 473.

[3] Thereof 240 271 held by »The Honoré T. Wamsler Trust«.

No options were granted to members of the Board of Directors for the years 2022 and 2021, 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 Committe/Executive Steering Committee, please refer to the Compensation Report.

2. Executive Steering Committee / Executive Committee

SHARES HELD

Name	**Number of shares granted for 2022**[1]	**Value of shares granted in CHF for 2022**	Number of shares granted for 2021	Value of shares granted in CHF for 2021	**Number of shares within vesting period 31.12.2022**	Number of shares within vesting period 31.12.2021	**Number of privately held shares 31.12.2022**	Number of privately held shares 31.12.2021
Conrad Keijzer	94 044	1 500 000	109 971	1 500 004	204 015	109 971	—	—
Bill Collins[2] [3]	14 862	—	1 500 004	—	14 862	—	—	—
Angela Cackovich[2]	—	—	—	—	—	—	—	—
Jens Cuntze[2]	—	—	—	—	—	—	55 940	—
Christian Vang[2]	—	—	—	—	—	—	65 799	—
Hans Bohnen [4]	17 964	287 000	51 320	700 005	114 134	156 737	147 984	131 013
Bernd Hoegemann [4]	17 964	287 000	51 320	700 005	114 134	125 058	70 623	65 056
Stephan Lynen [4]	—	—	51 320	700 005	—	123 801	101 027	95 913
Total	**144 834**	**2 074 000**	**263 931**	**3 600 019**	**447 145**	**515 567**	**441 373**	**291 982**

[1] Performance Share Units represent contingency rights that will be converted into shares depending on the performance achievement after the 3-year vesting period. Unvested PSUs do not count towards the share ownership requirements.

[2] No grant in 2022 and 2021; only became members of the ESC as of 1 July 2022 after the CLIP grant 2022.

[3] Bill Collins received 14 862 restricted share units subject to a vesting period of three years as compensation for lost entitlements with previous employer.

[4] Amounts reflect pro-rated entitlements or forfeitures due to the departure of EC members.

No options were granted to members of the Executive Committee / Executive Steering Committee for the years 2022 and 2021, nor did any member of the Executive Committe / Executive Steering Committee hold any options in those years.

For detailed information regarding emoluments of the Board of Directors and the Executive Committee / Executive Steering Committee, please refer to the Compensation Report.

16. 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.

17. 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 2022, 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	31.50%[1]
BlackRock Inc., New York, United States	3.80%
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. SABIC has not changed its participation of 31.5 % since then. The difference between this figure (i.e. 31.5 %) and the 32.35 % stated for 2021 corresponded to the amount of treasury shares held by Clariant Ltd as of 31 December 2021, 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. Said Governance Agreement expired at the Annual General Meeting dated 24 June 2022 and consequently the treasury shares of Clariant Ltd have not to be aggregated to the SABIC shares any longer.

[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 2022 financial year 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 2021, 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: 32.35%; BlackRock Inc., New York, United States: 3.8%; Blue Beteiligungsgesellschaft mbH, Am Holzmaierfeld, 82064 Strasslach-Dingharting (Germany), and Maple Beteiligungsgesellschaft mbH, 82057 Icking (Germany): 3.49%; PSquared Master SICAV Ltd, on behalf of its subfund Valetta, Malta Leveraged Event Fund LP, Grand Cayman, Cayman Islands, controlled by Patrick Schmitz-Morkramer, Zurich, Switzerland, and Patrick Bierbaum, Zurich, Switzerland: 3.035%.

At 31 December 2022, Clariant AG itself held 2 922 398 shares in treasury, corresponding to 0.88% of the share capital.

18. EVENTS SUBSEQUENT TO THE BALANCE SHEET DATE

There were no major events subsequent to the balance sheet date.

Appropriation of available earnings

The Board of Directors proposes to appropriate the profit of 2022 of Clariant Ltd in the amount of CHF 112 million as follows.

Annual result	in CHF m
Carried forward from previous year	—
Profit for the year 2022	112
Total available earnings	**112**
Appropriation	
Voluntary retained earnings as at 31 December 2022	1288
Transfer to voluntary retained earnings	112
Voluntary retained earnings as at 1 January 2022	1400
Balance to be carried forward	—

PROPOSED DISTRIBUTION THROUGH CAPITAL REDUCTION BY WAY OF A PAR VALUE REDUCTION

The Board of Directors proposes (in place of an ordinary dividend) a distribution through capital reduction by way of a par value reduction of CHF 0.42 per registered share, as a result of a reduction of the par value from CHF 2.60 to CHF 2.18 per registered share.

The proposed payout would reduce the share capital by CHF 139 million. The proposed payout of the par value reduction of CHF 0.42 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.

KPMG

Clariant Ltd, Muttenz

Statutory Auditor's Report

to the General Meeting on the

Financial Statements 2022

KPMG AG
Basel, 1 March 2023

Statutory Auditor's Report

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 (the Company), which comprise the balance sheet as at 31 December 2022, and the income statement for the year then ended, and notes to the financial statements, including a summary of significant accounting policies.

In our opinion, the accompanying financial statements 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 Standards on Auditing (SA-CH). 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 Company in accordance with the provisions of Swiss law, together with 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.

Key Audit Matters

VALUATION OF SHAREHOLDINGS IN AND LOANS TO GROUP COMPANIES

Key audit matters are those matters that, in our professional judgment, 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 PARTICIPATIONS AND GROUP COMPANY LOANS

Key Audit Matter

The Company holds shareholdings in and loans to group companies that represent 84% of the total assets of its financial statements.

Participations and group company loans are valued at a maximum of the acquisition costs less necessary value adjustments, taking into account the general principle of individual valuation. Participations and group company loans are subject to annual impairment testing.

Accordingly, management performs regular impairment assessments to determine the value of the shareholdings in and loans to group companies. The shareholdings and loans outstanding were considered

Our response

Our audit procedures included the following:

We inquired with management the adequate implementation of accounting policies and controls regarding the valuation of investments in and loans to group companies and tested the design and implementation of key controls around their valuation to determine whether appropriate controls are in place.

We challenged the assessment of impairment indicators performed by the Company and assessed management's process in grouping certain shareholdings in the context of the impairment calculation. We tested the valuation by critically assessing the methodology applied and the

significant due to their materiality in the context of the financial statements as a whole.

reasonableness of key assumptions and judgements included. We used our own valuation specialists to support our procedures. We assessed the impairment testing models and calculations by:

- Checking the mathematical accuracy of the impairment models and the extraction of input data from source documents; and
- Challenging the significant inputs and assumptions used to determine the value.

In addition, we validated the appropriateness and completeness of the related disclosures in the stand-alone financial statements.

For further information on Valuation of Participations and Group Company Loans refer to the following:

— Note 5: Shareholdings in group companies

Other Matter

The financial statements of the Company for the year ended 31 December 2021 were audited by another auditor who expressed an unmodified opinion on those statements on 18 May 2022.

Other Information

The Board of Directors is responsible for the other information. The other information comprises the information included in the annual report, but does not include the consolidated financial statements, the stand-alone financial statements, the compensation report and the review on performance, people and planet of the Company and our auditor's reports thereon.

Our opinion on the financial statements does not cover the other information and we do not express any form of assurance conclusion thereon.

In connection with our audit of the financial statements, our responsibility is to read the other information and, in doing so, consider whether the other information is materially inconsistent with the 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.

Board of Directors' Responsibilities 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 Company'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 Company 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 SA-CH 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.

As part of an audit in accordance with Swiss law and SA-CH, we exercise professional judgment and maintain professional skepticism throughout the audit. We also:

— Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.

— Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control.

— Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made.

— Conclude on the appropriateness of the Board of Directors' use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Company's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Company to cease to continue as a going concern.

We communicate with the Board of Directors or its relevant committee regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

We also provide the Board of Directors or its relevant committee with a statement that we have complied with relevant ethical requirements regarding independence, and communicate with them all relationships and other matters that may reasonably be thought to bear on our independence, and where applicable, actions taken to eliminate threats or safeguards applied.

From the matters communicated with the Board of Directors or its relevant committee, we determine those matters that were of most significance in the audit of the financial statements of the current period and are therefore the key audit matters. We describe these matters in our auditor's report, unless law or regulation precludes public disclosure about the matter or when, in extremely rare circumstances, we determine that a matter should not be communicated in our report because the adverse consequences of doing so would reasonably be expected to outweigh the public interest benefits of such communication.

Report on Other Legal and Regulatory Requirements

In accordance with article 728a para. 1 item 3 CO and PS-CH 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.

KPMG AG

Martin Rohrbach
Licensed Audit Expert
Auditor in Charge

Cyrill Kaufmann
Licensed Audit Expert

Basel, 1 March 2023

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.

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