

2021

Review on Performance, People, and Planet



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The Integrated Report consists of five reports that covers 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 2021, 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 – previously provided in the Multicapital Review – and the disclosures of the former GRI Report. 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

»Performance« covers the pool of funds available through both financing and sales to produce goods and provide services. Moreover, Performance includes knowledge-based intangibles used and created by the company and its partners: intellectual property (e.g., patents, trademarks, copyrights, software, rights, and licenses) and »organizational capital« (e.g., tacit knowledge, systems, procedures, and protocols). In addition, Performance covers physical objects owned by the company (e.g., buildings, equipment, and products).

Nine material topics are related to »Performance.« Six of these material topics address the company's overall performance: »Business Growth and Profitability,« »Engaging in Growing and Emerging Markets,« »Corporate Governance,« »Risk and Crisis Management,« »Business Ethics and Compliance,« and »Supply Chain Resiliency.« Three material topics relate to Clariant's products and technologies: »Innovation and Technological Advances,« »Product Stewardship,« and »Growth Opportunities from Sustainable Products and Solutions.«

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.

On the Capital Markets Day in November 2021, Clariant introduced its new 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 new medium-term targets that result in value creation. These financial and non-financial targets reflect Clariant's ambition to achieve top-quartile results in specialty chemicals in terms of growth, profitability, sustainability, and people.

Although business growth and profitability are a shared responsibility between all management functions, Clariant's Board of Directors defines the overall direction. It has delegated the executive management of this strategy to the Executive Committee, which consists of the Chief Executive Officer, the Chief Financial Officer, the Chief Operating Officer, and the Chief Transformation Officer. The Executive Committee 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.

Please consult the Business Report for in-depth information on Clariant's targets for growth and profitability. → [A PURPOSE-LED STRATEGY](#)

Please consult the Business Report for in-depth information on how Clariant's three Business Areas contribute to the company's growth and profitability. → [VALUE CREATION IN THE 2021 FINANCIAL YEAR](#)

Please consult the Financial Report for in-depth information on 2021 sales and earnings figures. → [FINANCIAL REPORT](#)

Please consult the Compensation Report for in-depth information on incentives for Clariant's management to achieve the corporate targets. → [COMPENSATION REPORT](#)

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 USD 2021-2025 CAGR for the specialty chemicals sector will be 5.8%, with 3.9% in advanced economies, but 7.0% in China and 10.3% in India. Clariant also plans to allocate more capital expenditure to growing regions – like Asia and North America – in the years up to 2025.



PERFORMANCE OVERVIEW

	Continuing operations	Discontinued operations	Total 2021	2020 ¹
Sales (in CHF m)	4 372	912	5 284	5 190
EBITDA (in CHF m)	708	114	822	1 382
EBITDA before exceptional items (in CHF m)	760	138	898	771
EBITDA margin (%)	16.2	12.5	15.6	26.6
EBITDA margin before exceptional items (%)	17.4	15.1	17.0	14.9
EBIT (in CHF m)	440	113	553	1 102
EBIT before exceptional items (in CHF m)	493	137	630	502
Net result (in CHF m)	292	81	373	825
Basic earnings per share (in CHF)	0.81	0.23	1.04	2.38
Diluted earnings per share (in CHF)	0.81	0.23	1.04	2.37
Operating cash flow (in CHF m)	n.a.	n.a.	363	369
Return on invested capital (ROIC) (%)	9.9			7.4 ²
Investment in property, plant, and equipment (in CHF m)			357	288
Personnel expenditures (in CHF m) ⁴	933	133	1 066	1 264
Total assets (in CHF m)			7 038	6 932
Equity (in CHF m)			2 544	2 416
Equity ratio (%)			36.10	34.90
Net debt (in CHF m)			1 535	1 040
Gearing (%)			60.0	43.0
Growth through innovation (%) ⁵	>3.5	n.a.	n.a.	>1.5 ⁶
Research & Development expenditures (in CHF m)	155	12	167	195 ⁶
R&D spend of sales (%)	3.5	1.3	3.2	3.8 ⁶
Patents (year-end)	>4 900	>200	>5 100	>5 400 ⁶
Active innovation projects	325	n.a.	n.a.	350 ⁶
Of which Class 1 Projects with double-digit million sales potential or of strategic relevance	65	n.a.	n.a.	55 ⁶
Scientific collaborations	80	n.a.	n.a.	100 ⁶
Clariant Innovation Centers ⁷	3	n.a.	n.a.	n.a.
Research & Development Centers and dedicated Technology Centers ⁷	10	n.a.	n.a.	8
Technical Centers	45	n.a.	n.a.	50
Production (in m t)	4.33	0.10	4.43	4.10 ⁸
Production sites	67	12	79	126
Countries with production facilities	26	10	27	39
Raw material procurement (in CHF m)	1 859	493	2 352	2 027
Raw materials procured (in m t)	3.49	0.18	3.67	2.92
Raw material supply spend covered by sustainability evaluations (%)	86.63	88.18	86.94	84.40

¹ Restated
² Continuing operations
³ Defined as (cash generated from operating activities - capex)/EBITDA
⁴ Including own employees and external staff
⁵ 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.
⁶ Excluding Business Unit Masterbatches
⁷ The categories of R&D-related sites were reorganized in 2021 due to changes in Clariant's R&D landscape after, e.g., divestments.
⁸ First half year 2020 data for Business Unit Masterbatches are estimated based on the last full reporting campaign in 2017.

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 2021, Clariant's sales in Asia remained resilient and grew by 16% in local currency. However, the company recorded notable growth in India and China (16% in local currency). Sales in China alone amounted to CHF 479 million, which represented approximately 10% of Clariant's global continuing business sales. To meet this demand, ten out of 67 Clariant production sites are now located in China. Latin America also increased revenues by 16% in local currency. Following the positive trend of the other regions already mentioned, Middle East and Africa grew by 19%.

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 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.



China

Already today, China accounts for about 35% of the global specialty chemical market. Also, 50% of the global growth for specialty chemicals in the next five years is expected to come from China.

Clariant conducts profitable business in China and experienced strong growth rates with a high single-digit annual average over the last five years. The company plans to grow further and expand its footprint in China in order to outgrow the market.

An increasing share of Clariant's products for the Chinese is produced domestically. Given the company's strategic investments in Chinese capacities, this share is expected to grow even further. At the same time, the share of Clariant products produced and exported from China has remained at around 25% over the last five years.

The company is determined to become a »China insider,« using its understanding of 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.

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, for 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 2021, Clariant sold about evenly to 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 a number of 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 plastic recycling along its value chain and to advocacy for its EcoCircle initiative with sustainable products, solutions, and partnerships. These efforts earned Clariant the 2020 China GoldenBee CSR Award and helped the company to attract young Chinese talents.

Projects in China

The new One Clariant Campus in Shanghai is one of Clariant's major projects in China. Inaugurated in 2021, 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 already played a key role in the development of products for the local market, for example, sustainable additive solutions for China's growing plastics, coatings, and adhesives industry.

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.

Clariant is also building a new production facility for CATOFIN® catalysts in Jiaying, Zhejiang province. The plant will address the strong growth in the propane hydrogenation market in this region. It is the most digitized Clariant facility to date, using sophisticated automation systems throughout the production process.

Clariant also opened a joint venture production facility with Beijing Tiangang Auxiliary Co. Ltd. in Cangzhou, Hebei province, in 2021. This world-class facility fulfills the growing demand of Chinese growth industries, such as the automotive, textiles, and coatings industries, for high-end process and light stabilizer additives.

At the end of 2021, Clariant started construction work on a flame retardant production facility at its existing site in Daya Bay, Huizhou, Guangdong province. This will allow Clariant to respond to the rapidly growing demand from the Chinese electrical and electronic equipment industries, particularly with respect to e-mobility, 5G communications technology, and transportation. By establishing local production capacities for its innovative and sustainable Exolit® OP range of flame retardants, Clariant significantly reduces time-to-market.



In 2021, Clariant rolled out its energy efficiency program eWATCH™ to all sites in China to institutionalize its high standards for energy conservation. The comprehensive program analyzes energy consumption across operations and identifies cost-saving opportunities.

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.« Clariant is confident that it can contribute to the rapidly growing local market in India by establishing two joint ventures: Clariant IGL Specialty Chemicals Private Limited and the catalyst joint venture with SCIL.

Sustainability policy in India

India has a positive mandate for blending bioethanol in gasoline. However, the country has no surplus crops for this application. Therefore, Clariant sees market potential for its sunliquid® technology, which uses agricultural waste as a feedstock.

Projects in India

In 2021, Clariant established a 51%/49% joint venture with India Glycols Limited under the name of Clariant IGL Specialty Chemicals Private Limited. 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 2021 financial year, the company expects an incremental addition of around CHF 50 million to the top line of Business Area Care Chemicals. The joint venture can deliver to customers in India, Sri Lanka, Bangladesh, and Nepal.

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.

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.

Clariant conducts its business through six business units: Additives; Catalysts; Functional Minerals; Industrial & Consumer Specialties; Oil and Mining Services; as well as the Business Unit Pigments (until the completion of the divestment on 3 January 2022). It reports on 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). In addition, there are nine service units and eight corporate functions.

The Board of Directors provides Clariant's strategic direction and ensures a corporate culture that is appropriate for the company's objectives. 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 Committee is responsible for the financial and operational management.

Please consult the → CORPORATE GOVERNANCE REPORT for in-depth information on corporate governance.

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. COVID-19 has triggered the largest economic crisis in decades and has taught the world to rethink existing and emerging risks. The pandemic has created an environment of uncertainty and the potential for long-lasting unknown effects on human capital and productivity. At the same time, global risks, such as climate change and digital disruption, have become more urgent or have been accelerated. With its effective and strong enterprise risk management, Clariant ensures quick adaptation to a fast-changing environment 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 Committee, the Audit Committee, and the Board of Directors for review. In the case of new or changed risks, internal reporting is accelerated. During 2021, in response to the pandemic, more frequent reviews were conducted.

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. One team comprising 47 members is also established at the Group level. The Group Emergency Management (GEM) team is supplemented by extended functions such as IT, Legal, Procurement, 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. It also relates to the identification and the management of opportunities. The Executive 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. Specific policies are in place and include topics such as how to reduce the risk of infection at sites and how to manage visitors or contractors. Recent improvement of the emergency management program aims to provide the teams with updated fit-for-purpose training resources and to ensure that training is completed as mandated. Future initiatives include an improved global emergency messaging or alerting tool and a new collaboration platform to be used in the event of ransomware attacks.

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 helps in recognizing the opportunities as well.

Emerging risks included in the risk register relate to topics such as:

Supply chain reliability: The achievement of targets 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, our 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 to identify potential constraints at an early stage and in close cooperation with our business partners. → [READ MORE ABOUT SUPPLY CHAIN RESILIENCY](#)

Digital interconnection: Successful performance of the Clariant Group depends on properly working information systems. Cyberattacks may result in the loss of business and personal data, knowledge, facilities, or money, leading to interruptions in manufacturing and product deliveries. Such attacks might cause significant economic damages as well as loss of trust. Clariant is responding to the increased cyber risk with a reinforced security operations center, state-of-the-art software, and frequent awareness campaigns.



Sustainability transformation: Demand for sustainable products is clearly increasing, which opens up business opportunities. Non-availability of sustainable offerings represents a market disadvantage. Clariant is responding with the new 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 DISCLOSURES](#)

→ [SASB DISCLOSURES, CHEMICALS STANDARD](#)

→ [TCFD DISCLOSURES](#)

→ [INTERNATIONAL <IR> FRAMEWORK, PART 2, 4D](#)

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.

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 to 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.

Environmental Safety and Health Affairs (ESHA), Sustainability, Information Security, Data Privacy, Enterprise Risk Management (ERM), and Internal Control over Financial Reporting provide yearly overviews of their programs. 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

The Executive Committee (EC) Subcommittee Ethics & Risk (ECS E&R) reviews and assesses 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 participates in the subcommittee with the CEO as its chair. The subcommittee receives regular reports and updates on individual measures, case reports, and remediation taken. It also approves the annual Group Compliance roadmaps and reviews the quarterly progress reports.

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 distributors and all regions. Participants submit a self-assessment questionnaire, while at the same time 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.

Clariant assesses third parties against a predefined risk model: Enhanced due diligence will be required for medium- and high-risk business partners, while others can onboard without further due diligence. However, all business partners must verify that they have an appropriate compliance framework in place, and that they have access to a relevant training program provided by Clariant based on their risk rating. 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.

Stakeholder-led regulatory proposals such as the Responsible Business Initiative in Switzerland increasingly demand greater transparency, particularly regarding the protection of human rights. In the coming years, Clariant will enhance existing activities, prove its commitment, and focus on → [HUMAN RIGHTS](#) in its own operations and its supply chain.

Information security and data privacy

Clariant has established an Information Security Program to create awareness and to train employees on the appropriate use of data. This 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 this 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. 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, and Sales, and to introduce new employees to basic 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: 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 data privacy rights of individuals. 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 is currently completing the implementation of the new standard contractual clauses adapted by the EU in June 2021.

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 25 key performance indicators from these categories that the Executive Committee and the Audit Committee set in 2018. 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, »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 published it on the company website in February 2021.

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 projects 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 the 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 responsibility.
- We take care of our resources.

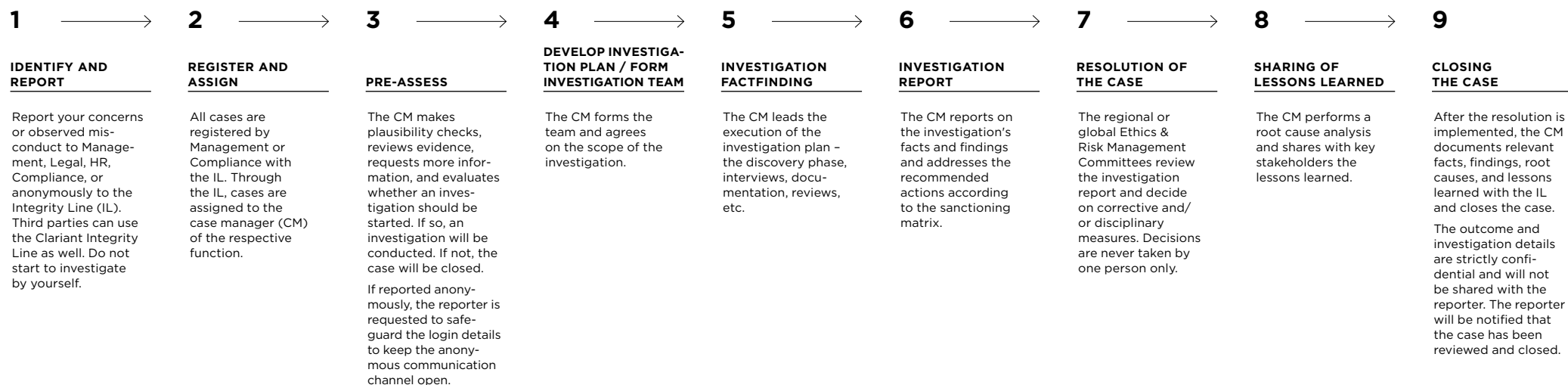
Until October 2021, Clariant rolled out the Code of Ethics with monthly campaigns and interactive virtual events to reach all employees despite pandemic circumstances. The company presented the eight principles in webinars, articles, interviews, and videos. In addition, for every principle, it described 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. → CODE OF ETHICS

Anti-bribery, anti-corruption, antitrust

In addition to its global anti-bribery and anti-corruption policy (ABC Policy) and gift 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.



001 NINE-STEP APPROACH



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 will re-implement it in 2022 with key performance indicators to be set and monitored.

Investigation process

With the new Code of Ethics, Clariant has updated its investigation process. This 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.

→ FIGURE 001

INTEGRITY LINE

	Total 2021	2020	2019	2018	2017
Cases submitted via the anonymous Integrity Line	82	64	99	95	70
thereof fully or partially substantiated	31	17	8	29	16
thereof closed during the year	56	38	31	72	46
Questions submitted via the anonymous Integrity Line	13	9	17	9	10
Total submissions	95	73	116	104	80

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 are anonymous and can be made 24/7 via an easy-to-use online portal. Clariant increased its focus on ways to speak up as part of the Code of Ethics launch campaign in 2021 with an employee survey, senior management discussions, and an ethics journal. The Code of Ethics even includes a nonretaliation commitment to foster the company's speak-up culture. The Integrity Line will be adapted to upcoming legal requirements on whistleblower protection and data privacy laws in the future.

In 2021, Clariant received 13 questions and 82 reports through its Integrity Line. One case can relate to several issue types. Of the reports, 23 were related to business integrity, 34 to the treatment of employees, ten to health and safety or environmental violations, and the remaining cases related to information security, cyber risk, data privacy, and others. 31 cases were substantiated fully or partially.



COMMUNICATION AND TRAINING ON ANTI-CORRUPTION POLICIES AND PROCEDURES

	Total 2021	2020	2019	2018	2017
Percentage of members of the Board informed about anti-corruption policies (%)	100	50	100	50	50
Percentage of employees informed about anti-corruption policies (%)	3	14	90	40	60
Percentage of business partners informed about anti-corruption policies (%)	70	60	60	40	50
Percentage of members of the Board who received anti-corruption training (%)	100	50	100	50	45
Percentage of employees who received anti-corruption training (%)	3	14	86	30	60
Percentage of employees who received compliance training (%)	81	14	86	45	60
Number of employees trained on elements of the Group Compliance Programs ¹	11 751	n.a.	n.a.	n.a.	n.a.
Number of participants in »Ethics Dialogs« ²	1 500	1 000			

¹ Headcounts
² This format was introduced in 2020.

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, and how to use the Integrity Line. In 2021, a total of 11 751 employees, i. e., 87% of the workforce, were trained 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, and is going to put it into practice in 2022.

In monthly campaigns, topic owners share the eight guiding principles of the Code of Ethics in short videos, interviews, articles, and dialog sessions. Every month, they present three dilemmas related to the guiding principles for discussion in team meetings. One of these cases is always tailored to the production site environment to ensure relevance to all employees at Clariant. In 2021, Clariant encouraged all leaders to use the dilemmas to engage in active discussions about the new Code of Ethics.

In addition, Clariant started a new »Ethics Dialogs« format in Latin America in 2021, but soon broadened it globally. Throughout the year, about 1 500 employees participated in ten global dialogs held on the various Code of Ethics principles. During these calls, participants can ask questions about various Code of Ethics topics, which different leaders answer directly. Questions can also be submitted anonymously after the call. In 2022, Clariant plans a Global Ethics Dialog and regional Ethics Dialogs in all regions.

Since 2020, Clariant has trained more than 4 500 employees in its antitrust training campaign with more than 320 global webinars. The campaign training movie, »Pay the Price,« won the inter-media-globe GOLD Award at the World Media Festival Hamburg 2021 in the category »Internal Communications: Training« and the Grand Award in the category »Internal Communications.«

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 2021, nine allegations regarding bribery, corruption, and kick-backs were brought forward. They led to disciplinary actions against seven employees. In four cases, Clariant dismissed the responsible employees, and one case is still under investigation.

There were no legal proceedings against Clariant or its employees for alleged corruption. However, Clariant did not terminate relationships with business partners (agent, distributor, or consultant).

Anti-competitive behavior

In 2021, there were no reported legal actions for anti-competitive behavior or antitrust or monopolistic practices. Clariant reports significant legal actions in its Financial Report.

Laws and regulations in the social and economic area

In 2021, Clariant was not fined for noncompliance with laws or regulations in the social and economic area.

SUPPLY CHAIN RESILIENCY

Supply chain resiliency contributes to value creation, as it protects the company’s reputation and increases revenue due to a strong position on the market. It also prevents profit losses from supply chain bottlenecks and secures the customers’ supply. Managing supply risks and promoting supply chain resiliency were particularly important in 2021, when the pandemic caused additional supply chain bottlenecks. However, Clariant was able to manage most of them.

Supply chain disruptions because of sustainability issues also increased in 2021. Therefore, Clariant took care to prepare its supply chain for the future by anticipating bottlenecks and choosing its suppliers accordingly. For example, it prefers to cooperate with suppliers that deal with climate change by reducing their emissions and providing emergency schemes for extreme weather events.

Long-established local and regional supply bases help Clariant to mitigate disruption risks. In 2021, this network was crucial, for example, for dealing with geopolitical issues, trade disputes, factory shutdowns, or blocked traffic routes.



PRODUCTION SITES AND FACILITIES

	Continuing operations	Discontinued operations	Total 2021	2020	2019	2018	2017
Production sites	67	12	79	126	118	125	125
Countries with production facilities	26 ²	10 ²	27 ²	39	38	39	39
Production (in m t) ³	4.33	0.10	4.43	4.10	4.25	4.34	4.60
Investment in property, plant, and equipment (in CHF m)			357	288 ¹	273	237	248

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.

However, Clariant’s procurement managers continuously review and adapt supply strategies. Further plans include creating more transparency through digital applications and the ability to illustrate how raw material issues affect the production of finished goods in order to see the sales at risk. These initiatives will further improve the resiliency of Clariant’s supply chain.

Clariant considers itself a front-runner in sustainability. The external environment in this context is shaped by a growing demand from customers and consumers for sustainable products, an evolving regulatory environment, and increasing interest in the circular economy and renewable raw materials. The company supports this shift by promoting innovation in biofuels, bio-based chemicals, and feedstock.

Clariant incorporates sustainability standards into its procurement practices, irrespective of material, product, geography, or risk potential. It demands transparency from its direct and indirect suppliers, for example, concerning emissions, labor rights, and human rights. Typically, suppliers that demonstrate good sustainability performance are also transparent about sustainability risks in their own supply chains.

Management approach

Global responsibility for supply chain resiliency 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 units, and service units in reducing their risk exposure. Supply strategies are aligned with each business unit.

The Supplier Sustainability & Climate Initiatives team reports to the Chief Procurement Officer. There are four regional sustainability specialists for Europe, Asia-Pacific, Middle East and Africa, and the Americas. They are responsible for setting the sustainable procurement strategy and implementing supplier sustainability projects globally.

Clariant’s backbone for supply chain resiliency and sustainability comprises 79 production sites in 27 countries.

Evaluation of management approach

Clariant continuously enhances the breadth and depth of its Procurement Sustainability Roadmap. It sets annual targets for supply chain sustainability 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 are currently under construction.

Supply chain policy

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 as well as integrity and ethics. In 2021, it outlined its principles in its → SUPPLIER SUSTAINABILITY JOURNEY.

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.

In 2014, Clariant published a Supplier Code of Conduct (SCoC), which was updated and expanded in 2021 and published as the Supplier Code of Ethics in January 2022. The Supplier Code of Ethics reflects the principles of the UN Global Compact initiative, the global chemical industry’s Responsible Care® initiative, 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).



Supply chain targets

In 2021, Clariant introduced new → SUSTAINABILITY TARGETS. They include reducing Scope 3 emissions by 14% by 2030. As Scope 3 footprint mainly comes from purchased goods and services, Clariant strives to scout for and purchase low-carbon alternatives in its supply chain. Thus, suppliers strongly influence the company's overall sustainability performance.

Clariant has also adopted its Procurement Sustainability Roadmap in alignment with the Sustainability Transformation team. It defines focus areas, strategies, and key performance indicators and applies them to the entire organization. In 2021, four out of eight indicators from this roadmap related directly to sustainability:

- increasing spend coverage with sustainability evaluation and decreasing spend with risk suppliers;
- number of new supplier sustainability assessment scorecards generated;
- number of new sustainability audit reports generated;
- number of suppliers that have improved their score in the sustainability assessments.

Internal trainings

Clariant Group Procurement Services (GPS) organizes annual internal trainings so that employees can adequately evaluate performance in the supply chain. In 2021, GPS organized 37 trainings mainly for GPS experts, the corporate sustainability team, and sustainability experts from business units. Other opportunities to

raise awareness included webinars, workshops, and exchange meetings. New employees in procurement also receive special trainings and support material. In 2021, Clariant introduced a number of remote training formats, mainly on Scope 3 greenhouse gas emissions.

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.

RAW MATERIAL PROCUREMENT ¹

	Continuing operations	Discontinued operations	Total 2021	2020	2019	2018	2017
Raw materials procured (in m t)	3.49	0.18	3.67	2.92	3.13	3.31	3.25
Percentage of the procurement budget that is used for significant locations of operation and spent on suppliers local to that operation (%)	n.a.	n.a.	87.1	87.6 ⁵	88.0	88.3	87.4
Asia-Pacific (in CHF m)	286	216	501 ⁴	426	597	672	627
Of which with local suppliers (in CHF m) ²	274	203	476 ⁴	405	564	641	591
Number of local suppliers ³	981	558	1 422	2 296	2 422	2 527	2 800
Europe (in CHF m)	1 029	226	1 255	1 017	1 232	1 340	1 237
Of which with local suppliers (in CHF m) ²	946	143	1 088 ⁴	909	1 117	1 228	1 122
Number of local suppliers ³	751	169	840	1 374	1 416	1 514	1 690
Latin America (in CHF m)	190	44	234	207	262	320	307
Of which with local suppliers (in CHF m) ²	148	13	161	140	176	213	209
Number of local suppliers ³	636	253	784	1 065	1 088	1 085	1 092
Middle East/Africa (in CHF m)	53	2	54 ⁴	67	99	106	109
Of which with local suppliers (in CHF m) ²	33	1	33	37	55	57	56
Number of local suppliers ³	109	22	124	358	395	378	407
North America (in CHF m)	301	6	307	311	453	510	395
Of which with local suppliers (in CHF m) ²	286	3	288 ⁴	285	419	464	359
Number of local suppliers ³	461	9	469	927	979	930	1 002
Grand Total (in CHF m)	1 859	493	2 352	2 027	2 642	2 948	2 674
Of which with local suppliers (in CHF m) ²	1 686	361	2 048 ⁴	1 777	2 330	2 603	2 337
Number of local suppliers ³	2 938	1 011	3 639	6 020	6 300	6 434	6 991

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 The sum does not add up as the numbers are rounded.

⁵ Continuing operations only

Supplier evaluation

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

Clariant supports strategic suppliers that outperform their peers in assessments and audits and continuously improve their performance. It pays most attention to assessments and audits according to 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.



PERCENTAGE OF SUPPLIERS ASSESSED VIA ECOVADIS

	Continuing operations	Discontinued operations	Total 2021	2020	2019	2018	2017
Percentage of direct spend for raw materials from suppliers covered by shared sustainability ratings (EcoVadis)	86.6	88.2	86.9	84.4	78	74	65

Through the TfS initiative, Clariant also 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 2021, TfS members initiated 1 345 new supplier assessments and 3 858 reassessments, of which 69% resulted in improved scores. At the end of the year, the TfS pool included 11 167 actively managed assessments. The number of new audits among TfS members amounted to 284, adding up to more than 2 000 audits conducted since 2012. Clariant correlates these assessments and audits against its own supplier base to determine the share of total spend covered by TfS assessments. Coverage reached 87% in 2021, surpassing the company's goal of 85%.

New suppliers that were screened using environmental and social criteria

In 2021, Clariant started business with about 4 000 new suppliers. Small indirect spend vendors represented 80% of them.

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

Following a comprehensive approach for supplier assessment, 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.

Clariant clearly and consistently outlines its expectations of suppliers. The company also makes clear how suppliers 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 2021, 13% of the 524 sup-

pliers identified with significant negative environmental impact followed a CAP. CAPs are in accordance with the 2020 Supplier Sustainability Consequence Management Framework, which was integrated into the Supplier Sustainability Journey in 2021.

The Supplier Sustainability Consequence Management Framework has turned out to be a helpful tool 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, but very rarely, terminates the business relationship.

Tier 2 evaluation

Transparency and visibility of Clariant's multitiered supply chain remains a challenge. To strengthen its sustainable procurement program, Clariant aims to extend its approach beyond its own suppliers to include tier 2 suppliers. This approach helps to satisfy the demand by Clariant's customers for transparency, to anticipate approaching regulations for sub-tier visibility, and to detect possible disruptions along its value chain at an earlier stage.

In 2020, Clariant joined a pilot program on sub-tier supplier assessments with other TfS member companies. In the context of this program, Clariant asks tier 1 suppliers of its strategic suppliers to disclose sustainability information to EcoVadis. Consequently, Clariant receives aggregated information on the sustainability performance of its tier 2 suppliers.

Clariant further refined this process in 2021 and requested 15 tier 1 suppliers to invite 73 of their suppliers to take an EcoVadis assessment. Thirty-six tier 2 suppliers agreed to share their EcoVadis scores with Clariant. They achieved a high average score, while only eight scored lower than required.

NEGATIVE ENVIRONMENTAL AND SOCIAL IMPACTS IN THE SUPPLY CHAIN

	Total 2021	2020	2019	2018	2017
Number of suppliers assessed for environmental impacts	4 876	4 205	9 434	10 566	8 692
Number of suppliers identified as having actual or potential significant negative environmental impacts	524	472	784	955	666
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	13	14	18	20	17
Number of suppliers assessed for social impacts	4 876	4 205	9 434	10 566	8 692
Number of suppliers identified as having actual or potential significant negative social impacts	357	342	1 060	1 205	598
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	8.9	13.5	16	26	19



In 2022, Clariant is going to extend this program to other procurement activities, like renewable raw materials, to customer-driven transparency projects, and to greenhouse gas emissions. The Supplier Sustainability Consequence Management Framework will further assist Clariant's tier 1 suppliers in evaluating, monitoring, and responding to tier 2 supplier TfS assessments. The framework provides systematic steps to engage with suppliers and to communicate Clariant's expectations. Accompanying letters will be available in six languages.

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 2021, 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 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. These trainings will continue in 2022.

Awards

In 2019, EcoVadis granted Clariant its Sustainable Procurement Leadership Award for »Best Internal Stakeholder Engagement.« In the same year, riskmethods, a company assessing supplier risks, honored Clariant with the »TOP Sustainable Supply Chain Program« award. These awards acknowledge excellence in sustainable procurement practices and distinguish Clariant as best in class, driving internal engagement to roll out a global sustainable procurement program.

In 2021, Clariant received the EcoVadis platinum medal for its own EcoVadis assessment. The company scored particularly high in sustainable procurement, which acknowledges its advanced sustainability system of supply chain management.

Clariant also won the »Trailblazer« award for its sub-tier visibility approach at the riskmethods forum in 2021, and succeeded in the »Top Risk Management« program at the 2019 Procurement Leaders Academy with its holistic risk management approach.

INNOVATION AND TECHNOLOGICAL ADVANCES

A strong focus on innovation and Research & Development is one of the five pillars of Clariant's strategy to become a global leader for specialty chemicals. Clariant tackles emerging macro trends to stay ahead in dynamic markets, creates high-performing solutions for rapidly changing customer needs, and drives profitable growth in all its businesses.

Innovation also supports the strategic pillar »adding value through sustainability«: 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 affecting 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 attract and retain talent.

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 one Executive Committee member and the Chief Technology Officer (co-chair), the GISC comprises the Executive Committee, the business units' innovation heads, the head of Sustainability Transformation, and the head of the Group Innovation & Sustainability (GIS) Program Management Office. Upon invitation, key functions from GIS and representatives from Corporate Planning & Strategy also join the GISC.

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.

As of January 2021, Clariant's new service unit Group Innovation & Sustainability (GIS) has been bundling innovation and sustainability competencies. It comprises the following units: Sustainability Transformation, Global Product Stewardship, Emerging Technologies, Group Biotechnology, and Global IP Management. A lean Program Management Office & Innovation Center Management function manages Clariant's Innovation Centers and ensures standardized processes, tools, and reporting.

Clariant regularly reviews its innovation approach as part of the Strategic Management Process.



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.

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 all their 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 next 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 2020, Clariant met expectations again in 2021 despite supply chain shortages and the challenging economic environment linked to the COVID-19 pandemic.

Clariant strives to realize a local currency growth rate of 2–3% through innovation, with a target of 1–2% sales growth from top-line innovations alone, which means innovations that create new sales in new markets, actively contributing to Clariant’s net growth. In 2021, innovation sales of the continuing businesses strongly contributed to the company’s overall recovery, growing by more than 3.5%. This was a result of Clariant’s continuous commitment and efforts to understand its customers’ needs and to deliver better and more sustainable solutions.

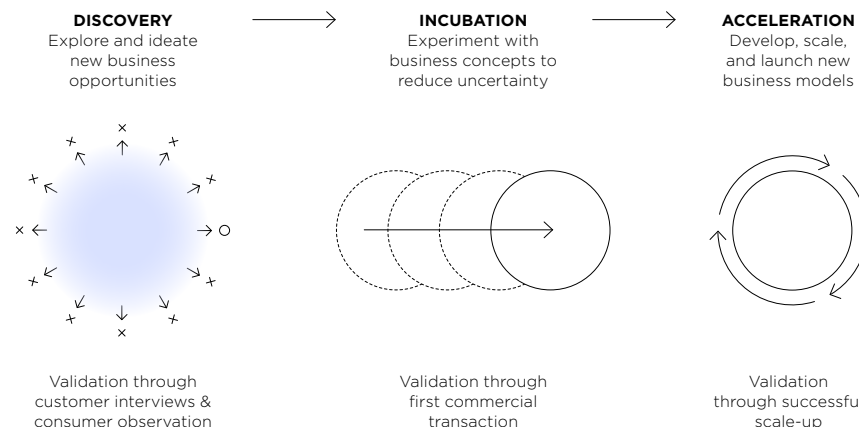
Research & Development spend in 2021 was CHF 155 million for the continuing businesses, a decrease compared to CHF 190 million in 2020, which then still included the discontinued Business Unit

Pigments. As a share of sales, R&D spending for the continuing businesses was 3.5%, a decrease compared to 2020, reflecting the efficiency gain in the streamlined R&D organization after the divest-

ment of Business Unit Masterbatches and the planned divestment of Business Unit Pigments. R&D employees (in full-time equivalents) decreased from 950 to 860.

STRATEGIC INNOVATION PROCESS: DISCOVERY, INCUBATION, AND 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 for 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.



INNOVATION AND TECHNOLOGICAL ADVANCES

	Continuing operations	Discontinued operations	Total 2021	2020	2019	2018	2017
Growth through innovation (%) ²	>3.5	n.a.	n.a.	>1.5 ³	<3.0	>3.0	2.5
Research & Development expenditures (CHF m)	155	12	167	195 ^{1,3}	207	209	211
Research & Development expenditures as share of sales (%)	3.5	1.3	3.2	3.8 ^{1,3}	3.2	3.2	3.3
Clariant Innovation Centers ⁴	3						
Research & Development Centers and dedicated Technology Centers	10 ⁴	n.a.	n.a.	8 ³	8	8	8
Technical Centers	45	n.a.	n.a.	50 ³	>50	>50	>50
Patents (year-end)	>4 900	>200	>5 100	>5 400 ³	>6 500	6 700	6 600
Trademarks (year-end)	>6 000	>1 400	>7 400	>7 400 ³	>9 000	8 900	8 300
Active innovation projects	325	n.a.	n.a.	350 ³	>375	>375	>370
Of which Class 1 projects with double-digit million sales potential or of strategic relevance	65	n.a.	n.a.	55 ²	>65	>70	>65
Scientific collaborations	80	n.a.	n.a.	100 ³	>125	>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 R&D-related sites were reorganized in 2021 due to changes in Clariant’s R&D landscape after, e.g., divestments.



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 2021, the overall number of active projects in the innovation pipeline was stable at 325 projects in the continuing businesses. With still more than 80 active scientific collaborations, the number decreased compared to 2020, as several projects were completed during last year.

In 2021, Clariant kept the number of employees trained as innovation belts constant at 365. These employees are a key factor in ensuring a well-filled project pipeline and efficient project management. The number of Class 1 projects increased from 55 to 65 in comparison to the previous year.

At the end of 2021, Clariant's continuing operations' patent portfolio counted 4 900 patents, and the continuing operations' trademark portfolio included 6 000 trademarks. The number of patents and trademarks decreased in comparison to 2020 due to the divestment of Business Unit Masterbatches and the planned divestment of Business Unit Pigments, as well as due to stringent portfolio optimization measures.

Technology platforms

Since January 2021, 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 new Emerging Technologies Unit

The new 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 the library synthesis of molecules for personal care applications; microbiological efficacy testing via high-throughput biological assays for crop applications; and 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.

In addition to existing labs in Frankfurt (Germany), Palo Alto (USA), and Houston (USA), Clariant is implementing further HTE labs at the One Clariant Campus in Shanghai, China. Their launch is expected in early 2023. All these facilities have a similar instrumentation, infrastructure, and operational model. They are designed to serve all Clariant business units and assure a quick transition from one project to another. Clariant manages them centrally to ensure that successes experienced in existing HTE labs also spread to the new ones.

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 CO₂ footprint.

Bio-economy

Clariant contributes to the → BIO-ECONOMY with its sunliquid® technology – a highly efficient means to convert renewable second-generation sugars into a broad range of chemicals, such as bioethanol. Other bio-based products include the low-carbon footprint surfactants from the GlucoTain® and GlucoPure® lines, which are readily biodegradable and have a Renewable Carbon Index of up to 96%, and the Licocare® RBW Vita solutions, which are highly effective lubricants and dispersion aids derived from a natural, non-food-competing by-product of rice oil production.

Hydrogen economy

Blue and green hydrogen will play a key role in the upcoming energy transition, enabled by Clariant's state-of-the-art catalysts. The company is already involved in more than 40 projects for the conversion, storage, and transportation of green hydrogen. In collaboration with Technip Energies, Clariant reached a breakthrough both in catalyst and reactor design for steam reforming to produce hydrogen, offering its customers up to 20% lower CO₂ emissions or increasing production output by up to 20%.

Circular solutions

Clariant's EcoCircle initiative focuses on circularity in the plastics industry. However, the challenges ahead will require implementing circularity in many other areas of life. Therefore, Clariant already develops solutions to enable circularity beyond plastics and will continue its efforts in this key area toward a more sustainable future.



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 has the ability 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.

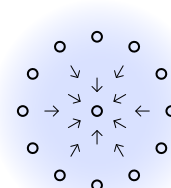
Initial focus has been given to selected business segments where digitalization can significantly improve efficiency and effectiveness of formulation processes and simultaneously enable new digital business models and go-to-market strategies. Via the Formulation Factory approach, digital assistants support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

In mid-2021, Clariant completed the rollout of the newly implemented Electronic Lab Notebook (ELN) for digitalization of R&D data with more than 740 active users globally. The ELN gives access to more data in a structured and searchable way, improving the exchange of data between labs, departments, business units, and service units. It 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.

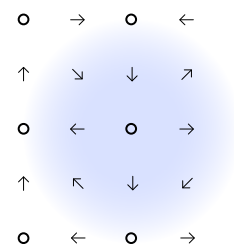
OVERCOMING INTERNAL AND EXTERNAL BOUNDARIES WITH INNOVATION NETWORKS¹

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.

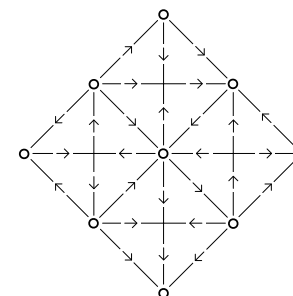
CLOSED INNOVATION
Inward-looking innovation



OPEN INNOVATION
Collaborative innovation



INNOVATION NETWORKS (OI 2.0)
Cross-organizational innovation



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

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

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 take place at a very early stage of the innovation process to eliminate unattractive 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.

In 2021, Clariant complemented these innovation management formats with a lean four-week format called miniGarage. It is limited in scope and accelerates innovation projects by applying an outside-in view on a set of critical assumptions.

All these formats take place according to the business units' needs and availability of prospective team members. In 2021, Business Unit Catalysts held an iGarage on energy transition. The team assessed applications in the area of blue and green hydrogen as well as ammonia as a means to decarbonize chemical production, refining, steel production, and power generation. It conducted more than 50 customer and industry expert interviews to better understand the market and upcoming business opportunities.

Innovation collaborations

Clariant continuously seeks collaboration with external partners to promote innovation. Its vast network encompasses experts in various trending fields. In 2021, Clariant further developed its innovation governance to strengthen the link between innovation and sustainability, and leveraged its collaborative innovation formats to support creative and sustainable solutions.



The Open Innovation (OI 2.0) initiative supports Clariant's business units in identifying collaboration partners around the world, connecting Clariant to the external technology and innovation community. It opens up 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 Initiative (LCET) by the World Economic Forum

Clariant is a founding member of the → **LOW-CARBON EMITTING TECHNOLOGIES INITIATIVE (LCET)** 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 projects include hydrogen and ammonia production in low-carbon emission processes; the use of alternative feedstocks, including plastic waste, CO₂, and biomass; and the overall electrification of the chemical industry. All of these areas are highly relevant for Clariant.

European Technology Platform for Sustainable Chemistry

Clariant is committed to the initiatives and strategies by 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 like 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 industry (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. Clariant actively contributes to Processes4Planet through its active role on the Board of Directors of A.SPIRE, the private partner behind the partnership. Processes4Planet is consistent with the European Commission's New 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

With its involvement in the Circular Bio-based Europe Joint Undertaking (CBE JU), Clariant demonstrates its strong commitment to a sustainable bio-economy and the EU's climate targets. The CBE JU was launched in November 2021 as a public-private partnership between the Bio-based Industries Consortium (BIC) and the European Commission. Clariant is a founding member of BIC and currently an active member of the BIC Board, the BIC Programming Working Group, and the BIC Programming Core Team.

Through the CBE JU, the bio-based sector will continue to restructure the industrial landscape by creating innovative solutions and bio-based value chains across the boundaries of the industrial and academic sectors. It will also integrate primary sectors (for example, agriculture, forestry, fishing, and aquaculture), market segments (for example, cosmetics, chemicals, packaging, plastics, textiles, construction and buildings, electronics, and food), and society.

The goal is to reach a »circular bio-society« by 2050, where informed citizens actively choose a sustainable way of life, supporting an economy that couples economic growth with societal well-being and respect for the environment. This will require appropriate communication to inform and actively involve society, as well as education, science, and policy actors to create a common understanding of the benefits of novel and innovative bio-based products. Bio-based products will also underpin multiskilled and secure jobs.

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 CO₂ 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.

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 in this initiative. The technology aims to use LOHCs to safely store and transport renewable hydrogen to filling stations or the chemical industry, for example, for glassworks.



Clariant also partners 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. Therefore, Clariant currently develops new and improved catalysts to release the hydrogen. TransHyDE is one of three hydrogen flagship projects aiming to prepare Germany's entry into a hydrogen economy.

Collaborations with academics

In 2021, Clariant engaged in more than 80 scientific R&D partnerships. For example, Clariant announced a new well-funded catalysis research partnership with the prestigious ETH Zurich in February 2021. Its goal is to advance the understanding of catalyst properties from the nanoscale to the macroscale level and their performance. Together with the ETH Foundation, Clariant will also 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.

Other collaborations

In 2021, Clariant also entered into collaborations with companies and customers to develop new products. Current examples are a joint venture with India Glycols to produce green ethylene oxide derivatives, and a collaboration with Polygal AG for superior natural rheology modifiers in skin care products.

Furthermore, the company contributes actively to industrial clusters, consortia, and organizations to drive collaboration along the value chain, favoring a holistic approach to solve complex and challenging situations. For 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.

Awards

In 2021, Clariant won several awards for outstanding innovative products:

- → INNOVATION AWARD FOR ETHIENCE® PROTECT (BSB Innovation Environment Award, category Environment, section Ingredients, BSB-Beratungs- und Servicebüro Dr. Riedel e.K., Hamburg)
- → INNOVATION AWARD FOR GLUCAMIDES (American Chemistry Council/ACC Sustainability Leadership Award, category Product Safety, Innovation, and Transparency)
- Swiss Chemical Society's Sandmeyer Award 2021 for Clariant's catalyst AmoMax®-Casale → [READ MORE ABOUT AMOMAX-CASALE](#)

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 starting point for its sustainable chemistry commitment. Handling chemicals responsibly and safely, in alignment 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 meet 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 product stewardship, requiring a company to pursue sustainable and innovative solutions proactively.

Therefore, Clariant steers its portfolio toward products that consider all three dimensions of sustainability: performance, people, and planet. 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 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 GIS, exemplifies Clariant's global approach to product stewardship. The organization takes care of health, safety, environmental, and other 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 this 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.



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, and 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, the company keeps all product dossiers up to date. 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.

However, Clariant goes beyond mere compliance: 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 similar to 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 things. In Turkey, Clariant already preregistered the relevant chemical substances.

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.

Portfolio Value Program (PVP)

The Portfolio Value Program (PVP) is the overarching sustainability framework through which Clariant develops its product and innovation project portfolio, including all existing products and the innovation pipeline. As part of the PVP, Clariant screens innovative products before commercialization and revises existing product

screenings. This screening covers 36 criteria that consider the entire life cycle and go beyond product safety. Strengths and weaknesses in terms of sustainability are also assessed, comparing product performance against alternatives on the market and against defined sustainability risks and benefits.

In 2021, Clariant revised its Portfolio Value Program and launched an updated set of criteria related to circular economy as well as safe and sustainable chemistry. It includes current sustainability trends and developments, responding to market developments and stakeholder needs. External stakeholders such as customers, suppliers, scientists, nongovernmental organizations, policymakers, and authorities will be consulted for the update of the program in 2022.

Clariant sustainability labels

Based on the PVP criteria, Clariant awards its EcoTain® label to products that show an excellent sustainability profile. Products are nominated by the business units and assessed by an internal EcoTain® panel comprising Sustainability Transformation, Product Stewardship, Innovation, regional experts, and Group Communications. Products awarded the EcoTain® label set an ambitious benchmark that distinguishes products significantly exceeding market standards. These products must have best-in-class sustainability performance on at least one of the 36 criteria screened, offer benefits in several product life cycle phases, and not have any significant adverse environmental or social impacts.

PRODUCT STEWARDSHIP

	Continuing operations	Discontinued operations	Total 2021	2020	2019	2018	2017
EcoTain® awarded products	18	0	18	24	27	24	18
EcoTain® withdrawn products	3	0	3	15 ³	0	0	0
Cumulative number of EcoTain® products	209	34	243	228 ¹	204 ²	193	169
Product portfolio screened for sustainability performance (sales %)	78	n.a.	n.a.	76 ²	76 ²	76	78
Screened products meeting internal sustainability definition (%)	68	n.a.	n.a.	67 ²	68 ²	68 ²	70
Screened products not meeting internal sustainability definition (%)	10	n.a.	n.a.	10 ²	8 ²	8	8

¹ Restated due to EcoTain® withdrawals
² Number refers to continuing businesses only.
³ Number refers to discontinued businesses.



In the course of 2021, 18 products received the distinguishing label, which made a total number of 243 EcoTain® products across all markets. Clariant compared the sustainability performance of these products with their financial performance. On average, sustainability excellence of EcoTain® products goes hand in hand with superior financial performance.

In addition, 78% of the continuing operations' portfolio was screened for sustainability performance, of which 68% met Clariant's internal sustainability definition. Clariant's sustainability designators, launched in 2019, enable customers to identify products with key sustainability advantages. This approach has already shown positive results. The »Vita« designator has been given to 53 products, indicating that the product contains natural ingredients, while the »Terra« designator has been given to 54 products, indicating that all product components are based on renewable resources. There are also 21 »Circle« products, highlighting the contribution to circularity in the plastic sector.

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 2021, 78% of significant product and service categories were assessed for health and safety impacts. Clariant thus covers 2 percentage points more than last 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 these demands of a modern, globalized society.

Clariant considers the application of genetically modified organisms (GMOs) as part of its technology portfolio for more sustainable and more efficient production processes, in particular 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 → **CLARIANT POSITION ON INDUSTRIAL BIOTECHNOLOGY & GENETICALLY MODIFIED ORGANISMS**. In 2021, no more products of the Clariant portfolio contain GMOs.

Requirements for product and service information and labeling

Clariant fosters permanent contact with customers and supports them in applying and using Clariant's products. Laboratories are available to solve any 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. They contain the relevant substance data, information on safe handling and storage of products, and measures in the event of product spillages, releases, or fire.

The company has a close relationship with its customers and provides all REACH-relevant information. Comprehensive customer support services ensure compliance with the strict communication requirements set by REACH regarding the use of products in the customer chain.

Animal testing

Clariant is committed to research on alternatives to animal testing. The company participated in a project that has been awarded the »Animal Welfare Research Prize« in 2019 by the German Federal Ministry of Food and Agriculture because of its potential to reduce or replace animal testing in the long term. The research team developed an alternative test system based on human-induced pluripotent stem cells that uses a genome-wide analysis to measure developmental neurotoxicity (DNT). The test is applicable to chemical exposures and assesses how well an in vitro system reflects the processes in the human body.

Incidents of noncompliance

Product and service information and labeling

In 2021, 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 2021, 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 2021, Clariant had no incidences of noncompliance with regulations or voluntary codes concerning marketing communications.

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.



In line with its new purpose, »Greater chemistry – between people and planet.« Clariant develops growth opportunities from sustainable products. The company links innovation and sustainability to enable future growth. New products launched in 2021 show explicit sustainability benefits. These ambitions also gained external recognition: In 2021, Clariant was listed in the Dow Jones Sustainability Index (DJSI) with a best-in-class innovation score.

Management approach

The Global Innovation and Sustainability Council shapes Clariant's agenda on sustainability-driven portfolio transformation. To emphasize the necessary link between innovation and sustainability, Clariant additionally established a new Sustainability Transformation department in 2020. It is responsible for fully integrating sustainability in the company's products and processes.

Since January 2021, the new service unit Group Innovation and Sustainability (GIS) has bundled both topics under one roof. Its primary task in its first year was 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. As of 2022, Clariant even strengthened the integration of innovation and technology by introducing a Chief Technology & Sustainability Officer, reporting directly to the CEO.

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.

Sustainability transformation has also become a key topic for which Clariant sets five-year strategic priorities and targets. It 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 towards the strategic targets is reviewed on a quarterly basis in the Global Innovation and Sustainability Council (GISC), comprising the members of the Executive Committee, the innovation heads of the business units, as well as key functions. The conclusions are further reported to the I&S committee, a board subcommittee tasked with the oversight on innovation and sustainability matters, including climate risk management.

Clariant engagement in the public policy dialog

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 dialog 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 and sustainability fora 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.

Within Group Innovation & Sustainability, a dedicated team of government affairs and advocacy professionals coordinates external policy-related engagement supported by an internal Advocacy Forum. The Advocacy Forum consists of representatives of Senior Management from both corporate functions and business units and acts as a sounding board for reviewing policy developments and recommending Clariant positioning.

To foster internal knowledge, advise on Clariant strategy, and expand our engagement with external stakeholders, the company has also established Clariant Policy Dialogs in 2021, a webinar series featuring external policy or sustainability experts (value chain players, industry associations, academics, and NGOs) presenting their perspectives and recommendations. In 2021, five Policy Dialogs were organized, focusing on key themes such as the EU Chemical Strategy for Sustainability, industry's role in supporting a hydrogen economy, how companies can contribute in closing the plastic loop, how to support a sustainable bio-economy, and on innovation and R&D programs at the EU level supporting the climate and energy transition.

Growing demand for sustainability solutions

Consumer and customer demand for sustainable products accelerated again in 2021. In accordance with 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.

Consumers especially consider the ingredients and the sustainability performance of products such as cosmetics, electronic gadgets, and home construction materials. In a recessionary environment, demand for these items often decreases, while essentials come into sharper focus. During the pandemic, however, demand for hygiene products and home electronics was robust, a trend that may endure in the future.

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 dialog

For Clariant, open communication with → CUSTOMERS is critical to address emerging needs and trends in its business environment. During the pandemic, Clariant's digital capabilities and channels – including e-commerce – have become increasingly important. In 2021, customer dialog 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 was strong, particularly in emerging sectors like electric vehicles or renewable energy.

Sustainable growth policy

As a part of its strategic pillar »Add value with sustainability.« Clariant's target is to generate 1% annual growth from sustainability-driven innovation by 2025 by developing bio-based products, enabling defossilization, and promoting circularity. Currently, the company focuses 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.

In 2021, Clariant set itself new → SUSTAINABILITY TARGETS for climate protection. → ADDITIONAL TARGETS relate to activities in circular plastics and the bio-economy. An outstanding example of enhancing → CIRCULARITY is Clariant's Tailings Management program, which started in 2021. It offers multiple technology platforms to improve efficiency and sustainability in the mining industry. Thus, reusing products at the end of their respective life cycle while closing material loops offers new business opportunities.

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 aims to divest those parts of its business most impacted by commoditization and to focus on sustainability. Where possible, it replaces or phases out unsustainable products, while low-carbon and circular-economy-compatible solutions gain traction. In 2021, Clariant developed products that meet customers' sustainability and performance needs while also controlling costs to compensate for pandemic-related challenges.

Portfolio Value Program (PVP)

Clariant's business units work together with → PRODUCT STEWARDSHIP and Sustainability Transformation to identify products that offer growth potential because of their sustainability performance. Through the Portfolio Value Program (PVP), they uncover sustainability improvement opportunities and identify best-in-class and unsustainable products. Subsequently, they develop and maintain roadmaps with clearly defined milestones to determine how and when to enhance or replace products and, thus, drive innovation in the product portfolio.

By now, Clariant has screened 78% of its products through the PVP. It rescreens EcoTain® products every two years and sustainable products every five years. In addition, Clariant compared the sustainability performance of its products with their financial performance in 2021. Data showed that, on average, sustainability excellence goes hand in hand with superior financial performance: The compound annual growth rate of EcoTain® products is 1.5 times higher than that of the total portfolio (2015–2020 CAGR of total portfolio 3.8%, of EcoTain® portfolio 5.9%).

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. More than 200 products carry the EcoTain® label by now. In 2021, they accounted for 9% of total sales, considering continuing business. By 2025, 15% of innovation sales are projected to derive from products carrying the EcoTain® label.

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. By 2021, customers increasingly appreciated the transparency given by the designators.

Raw materials

Clariant increasingly uses 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 always investigates allegations of violating its sustainability commitment in the supply chain.



People

»People« includes Clariant’s employees and their competencies, capabilities, experience, and drive to innovate, as well as their identification with the corporate values and their ability to understand and implement Clariant’s strategy. Furthermore, it covers the company’s key relationships with primary stakeholders and network partners, in particular, Clariant’s strong customer relationships. This can include shared values, trust, engagement, and related intangibles associated with Clariant’s brand and reputation.

Five material topics are related: »Employee Engagement and Well-being,« »Diversity, Equity, and Inclusion,« and »Occupational Health and Safety« concern the company’s employees; »Customer Relationships« concerns clients; and »Human and Labor Rights« concerns the supply chain in particular.

EMPLOYEE ENGAGEMENT AND WELL-BEING

Clariant’s people are an invaluable competitive factor in developing, improving, protecting, and delivering products and services. Long-term success is only possible with motivated and highly skilled employees who create value for the company and its stakeholders. Therefore, Clariant is committed to providing a company culture of learning, engagement, and appreciation for employees on all levels. The company strives to be an employer of choice, attracting top talents to help it deliver lasting results.

Management approach

Employee engagement is a responsibility of each leader at Clariant, as trust in the leadership team is a strong driver of engagement. Each leader must give clear directions by explaining strategic decisions and the implications of everyone’s responsibilities; provide the necessary infrastructure; and implement consistent processes. Clariant’s performance management is also part of the leaders’ responsibilities. To support their work, Group Human Resources has established strong processes for talent acquisition, onboarding, performance management, and talent management in all regions.

Human resources management is central for all business areas and all regions of Clariant. Efficient recruitment and onboarding processes help new employees quickly contribute to the implementation of the company’s strategies. Globally, Clariant’s operational and strategic Human Resources departments comprise 204 employees.

Talent management ensures a consistent and structured talent pipeline for each management level and the best fit between role requirements and individual capabilities. The functional area »Senior Management & People Development,« with a staff of 30 people, holds the main responsibility for attraction and development of talent.

Programs for upgrading employee skills and transition assistance program

The Clariant Academy encompasses all global learning offerings designed to support Clariant’s strategy and promote common language and values across the organization. A global nomination process for the Clariant Academy programs ensures that all relevant 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.

Within the Clariant Academy, global trainings targeted at business, leadership, and functional skills offer a standard curriculum for each level in the organization. Furthermore, the annual training catalog with a focus on leadership skills and personal development includes recommendations for external classes.



PEOPLE OVERVIEW

	Continuing operations	Discontinued operations	Total 2021	2020
Total staff	11 537	1 837	13 374	13 235 ¹
Male (in FTEs)	8 770	1 599	10 370	10 214 ¹
Male (%)	76	87	78	77 ¹
Female (in FTEs)	2 767	238	3 004	3 020 ¹
Female (%)	24	13	22	23 ¹
Employees	7 140	906	8 046	8 066 ¹
Male (in FTEs)	4 719	689	5 408	5 415 ¹
Male (%)	66	76	67	67 ¹
Female (in FTEs)	2 421	216	2 638	2 651 ¹
Female (%)	34	24	33	33 ¹
Workers	4 397	931	5 328	5 169 ¹
Male (in FTEs)	4 052	910	4 962	4 799 ¹
Male (%)	92	98	93	93 ¹
Female (in FTEs)	345	21	366	369 ¹
Female (%)	8	2	7	7 ¹
Staff under the age of 30 (%)	15	10	14	14
Staff between the ages of 30 and 50 (%)	60	53	59	59
Staff over the age of 50 (%)	25	37	27	27
Employees in permanent employment contracts (in FTEs)	n.a.	n.a.	12 893	12 763
Employees in temporary employment contracts (in FTEs)	n.a.	n.a.	481	472
Full-time employees (in FTEs)	n.a.	n.a.	13 023	12 887
Part-time employees (in FTEs)	n.a.	n.a.	351	348
Turnover rate (%)	n.a.	n.a.	11.3	10.3
Staff in Research & Development (in FTEs)	>860	>40	>900	>950 ¹
Total training hours	152 565	11 957	164 523	113 190 ²
Training hours (Ø per participant)	14.9	7.1	13.8	9.0
Percentage of total employees covered by collective bargaining agreements (%)	n.a.	n.a.	47	53
Lost-Time Accident Rate (LTAR) ³	0.15	0.21	0.16	0.16
Lost-Time Accident Rate (LTAR) for contractors ³	n.a.	n.a.	0.30	0.14
Lost Workday Rate (LWR)	7.32	3.81	6.85	7.39
Employee participation in engagement survey			2 896	447 ¹
Employee Net Promoter Score (eNPS)			-7 ⁴	
Survey responses obtained from customer contacts	5	5	5	1 735
Customers who want to continue doing business with Clariant (%)	5	5	5	88

¹ Excluding Business Unit Masterbatches

² A majority of in-person trainings was cancelled due to the pandemic and related travel restrictions.

³ LTAR: accidents with at least 1 day lost/200 000 work hours

⁴ This value was collected for the first time in 2021. Therefore, there is no comparability with previous years.

⁵ Survey is conducted every two years.

Global and regional learning policies describe how Clariant supports the education of all employees. These policies include budget frameworks and study assistance guidelines. Clariant increasingly adds offerings to enhance digital learning and virtual self-study learning opportunities. New virtual learning elements include microlearning videos, a virtual self-learning hub with recommended content sorted by business type or skill, and guided learning nuggets on topics such as time management and resilience. In addition, most of the Academy programs are now available as virtual trainings. Employees can choose between fully virtual, blended (virtual plus face-to-face), and fully face-to-face settings depending on the personal needs and restrictions based on travel and meeting guidelines.

Overall, 11 956 employees participated in a training recorded in the central learning management system MyLearning, for a total of 164 523 training hours. This development can be attributed to the effects of the COVID-19 pandemic: Clariant replaced a majority of in-person trainings with virtual events and added new offerings for these kind of trainings. The average number of training hours per employee significantly rose to 13.8 hours per employee. Each female employee had an average of 17.0 hours, while male employees averaged 12.6 hours of training per year. At Management Level 1-5, 18.1 hours per person were recorded, whereas local managers, professionals, and employees completed 13.5 hours of training.

In 2021, 690 employees benefited from four Clariant Academy programs. New virtual sessions were introduced, with time invested in their design and implementation. Overall, training participation related to safety and sustainability (24.0%), legal and compliance (15.7%), functional skills (21.3%), IT skills (7.7%), personal development (26.6%), and leadership (4.7%). These figures include trainings beyond the Clariant Academy. In 2021, the average feedback score for Clariant Academy trainings was 5.0 (with a maximum possible score of 6.0).



AVERAGE HOURS OF TRAINING PER YEAR PER EMPLOYEE

	Continuing operations	Discontinued operations	Total 2021	2020 ¹	2019	2018	2017
Number of training hours	152 565	11 957	164 523	113 190	205 861	234 240	192 435
Male	n.a.	n.a.	108 996	75 372	140 548	167 734	n.a.
Female	n.a.	n.a.	55 526	37 818	65 277	66 506	n.a.
Management Level 1-5	n.a.	n.a.	12 345	8 897	19 318	26 679	n.a.
Local managers, professionals, and employees	n.a.	n.a.	152 178	104 293	186 543	207 561	n.a.
Number of employees participating in training (headcounts)	10 275	1 681	11 956	12 630	13 891	15 791	9 720
Average hours of training that the organization's employees undertook during the reporting period	14.9	7.1	13.8	9.0	14.8	14.8	19.8

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

Performance, talent, and leadership programs

Clariant offers a wide range of formal and informal programs so that employees can achieve their full potential. The People Excellence strategy links these programs closely to business needs and implements them effectively and efficiently. The strategy specifies requirements for the successful execution of the corporate and business strategies: It 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, capability development programs to identify strengths and gaps, and development centers where talents are evaluated to create visibility for their careers.

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 dialogs,« with their supervisors to identify objectives, areas for improvement, development actions, and opportunities to leverage strengths and celebrate success. To guarantee consistency of performance ratings, calibration sessions are part of the performance management process.

The performance review includes goal setting, ongoing feedback, mid-year reviews, and a year-end performance review. This review is partially retrospective and partially forward-looking, and may also cover potential progression over a number of 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 2021, the performance management process covers 56% of all employees. This means that 7 514 employees followed a standardized performance management process.

Talent development programs

Clariant evaluates and develops all employees through a structured talent management process that follows transparent indicators. These indicators include achievement motivation, analytical skills, adaptability and flexibility, and self-reflection. Broad learning

measures and learning circles allow employees to exchange views across units and to show their capabilities to peers and senior management.

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.

In 2021, the organization held 57 talent reviews with more than 1 000 talents and mapped 142 Senior Management roles with potential successors. In addition, seven global job family talent pools were analyzed. This process identifies possible succession gaps and mitigation measures per 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 2021. In the general talent population, the average tenure in a certain role before promotion is around four years. With 90%, the talent retention rate remained nearly at the high level attained in 2020. Clariant promoted internal

PERCENTAGE OF EMPLOYEES RECEIVING REGULAR PERFORMANCE AND CAREER DEVELOPMENT

	Continuing operations	Discontinued operations	Total 2021	2020	2019	2018	2017
Total number of employees who receive regular performance and career development reviews (headcounts)	6 294	1 220	7 514	7 335	10 063	10 350	10 300
Management Level 1-5	n.a.	n.a.	732	658	776	819	900
Local managers, professionals, and employees	n.a.	n.a.	6 782	6 677	9 287	9 531	9 400
Male	n.a.	n.a.	5 285	5 125	6 687	7 611	n.a.
Female	n.a.	n.a.	2 229	2 210	3 376	2 739	n.a.
Percentage of total employees who receive regular performance and career development reviews (%)	n.a.	n.a.	56	55	58	58	51
Male	n.a.	n.a.	51 ¹	50 ¹	50 ¹	55 ¹	n.a.
Female	n.a.	n.a.	74 ¹	73 ¹	91 ¹	93 ¹	n.a.

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



candidates into 86% of Senior Management positions and filled 91% 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 is hard to find in the market. For this reason, the in-house Digital Enablement team, which is a part of Digital@Operations under the Group 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: identifying talents early on; increasing the visibility of development opportunities; connecting leaders across business units and service units to create synergies; enabling talents to be the protagonists of their own career development; and improving change readiness.

Leadership programs

Clariant's »Capability Development Program« helps leaders to identify requirements for various job levels and development opportunities at organizational and individual levels. In 2021, the focus was on employees from the Human Resources department, the Commercial department of the Business Unit Catalysts, and the Finance department, with over 200 individuals proposed for evaluation. Since the program relies on face-to-face exercises, schedules had to be adjusted according to local COVID-19 restrictions. Despite these challenges, 251 employees were able to participate, a higher number than in 2020 and 2019.

The »Innovation Talent Management Review« (ITMR) initiative identifies talents, develops key innovation skills, and assigns innovation professionals to suitable business units. As a part of ITMR, Clariant has defined career paths for its innovation professionals and developed a learning curriculum focused on innovation-specific topics. Since 2018, the initiative has reviewed around 200 talents, mapped 50 roles, and collected more than 60 proposals for learning measures. Clariant completed the fourth ITMR round in 2021.

In the »Mentoring Program,« younger professionals get the opportunity to team up with experienced leaders to strengthen leadership skills and encourage knowledge transfer across functions and age groups. Since its inception, more than 120 mentees have participated in the program.

The »Team Effectiveness Program« helps leaders apply measures that enhance trust within their teams, improve the quality of decision-making, and strengthen the execution of commitments. Clariant specifically designed this program to help leaders build high-performing teams.

The following trainings were not held in 2021 due to meeting and travel constraints caused by the COVID-19 pandemic:

- The »Authentic Leadership Training« 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« is designed for production managers and shift leaders. It covers basic leadership instruments that enable managers to effectively lead and motivate teams and manage change. A dedicated learning manager facilitates this interactive training, which repeatedly receives outstanding reviews from participants.
- The »Pioneer Program« was established in 2017 to enhance organizational understanding as well as leadership and communication skills of aspiring leaders by exposing them to short-term assignments outside their areas of responsibility.

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 at enhancing motivation, commitment, and employee performance. Their overarching framework is Clariant's thoroughly phrased purpose. In 2021, Clariant was able to mitigate early-leaver risks and lower costs per hire, thereby supporting overall cost-saving targets.

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 the definition and rollout of 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 was adopted in 2018. It 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 and age group. 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 2021, Clariant reviewed health and well-being offerings in every country 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 in the form of vouchers or presents – for example, for supporting colleagues in busy times or for project contributions. Awards and recognitions can be provided to, and be initiated by, all employees in alignment with the global framework and the MySuccess platform.

Clariant’s Global Benefits Policy, adopted in 2018, contains key elements like benefits related to retirement, flexible work arrangements, death, travel, accidents, healthcare, and well-being. 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.

Benefits provided to full-time employees that are not provided to temporary or part-time employees

In the company benefits provided by Clariant, there is no intentional differentiation based on the type of employment contract. This does not exclude differences that depend on the individual case and 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 stress related to work, as well as burnout or personal crises. Flexible work arrangements can be

NEW EMPLOYEE HIRES AND EMPLOYEE TURNOVER

	Continuing operations	Discontinued operations	Total 2021	2020	2019	2018	2017
Total number of new employee hires (in headcounts)	1 356	82	1 438	918²	1 570¹	2 142	1 983
Male	990	67	1 057	647	1 080	1 453	1 412
Female	366	15	381	271	490	689	571
Under 30	585	42	627	393	744	985	969
30-50	694	38	732	464	750	1 045	922
Over 50	77	2	79	61	76	112	92
Europe	535	9	544	304	561	751	622
Latin America	228	36	264	156	317	359	341
Middle East/Africa	37	2	39	31	61	93	130
North America	167	1	168	92	273	436	402
Asia-Pacific	389	34	423	335	358	503	488
Employees who left (in headcounts)	1 363	193	1 556	1 522	1 817	2 047	1 991
Male	957	164	1 121	1 085	1 322	1 515	1 448
Female	406	29	435	437	495	532	543
Under 30	326	27	353	393	461	540	603
30-50	662	55	717	668	915	970	839
Over 50	375	111	486	461	441	537	495
Europe	535	94	629	505	544	588	658
Latin America	231	38	269	310	398	358	400
Middle East/Africa	27	3	30	39	78	142	90
North America	241	4	245	297	433	536	424
Asia-Pacific	329	54	383	371	364	423	419
Turnover rate (%)	n.a.	n.a.	11.3	10.3 ³	10.3	11.1	11.0

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 %.

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 conducts an assessment of the health habits and specific health problems of all employees and updates local programs based on these findings.

Talent attraction

For talent attraction and development, Clariant abides by its global talent acquisition policies (Recruitment Policy, Global Recruitment Agency Policy, Onboarding Policy, and Employee Referral Policy). The policies clarify and specify the roles and responsibilities of the hiring manager, recruiter, and other human resources personnel to ensure an efficient, effective, and professional talent acquisition process. More specifically, highly trained talent acquisition teams partner with the business units to identify and select the best external talent. Employer branding programs create awareness in the job market and attract potential candidates.



Moreover, line managers are trained in the »License to Hire« program to ensure they make the right hiring decisions. For years, Clariant has filled at least 80% of open positions at the Management level with internal candidates. Dedicated talent managers review potential talents, manage talent review sessions, create individual development plans, and participate in internal placement decisions. They also organize so-called »talent engagement sessions« to give internal talent visibility and exposure to senior managers and to receive feedback on corporate culture topics.

Through Clariant's referral program, employees receive a cash reward if they recruit new candidates who are subsequently hired.

Clariant strives to attract people who are aligned with its values and meet the defined role requirements. In 2021, Clariant hired 1 438 new employees (381 women and 1 057 men). With 37.8% of new hires, Europe accounted for the largest share of new employees, followed by Asia-Pacific, which accounted for 29.4% of new hires.

At the same time, 1 556 employees left Clariant, 435 of them female and 1 121 male. Of them, 40.4% left in Europe, and 24.6% in Asia-Pacific. The turnover rate per FTE was at 11.3%, compared to 10.3% in 2020.

New ways of recruiting

In 2021, Clariant strengthened agility and pragmatism in the recruiting and development processes. The company used digital tools more intensely to continually fill business-critical positions. It also invested the time needed to develop trust with candidates due to the pandemic. Clariant's digital interviewing platform facilitated the application process for candidates from around the world. Techniques like videoconferencing and asynchronous video interviews offered flexibility for both applicants and hiring managers, saving time and costs.

Utilizing digital interview techniques for recruiting allowed Clariant to evaluate a higher volume of candidates in 2021. Digital recruiting creates an environment that reduces inherent biases. This fosters high-quality hiring decisions from a more diverse pool of talents.

Furthermore, talent attraction often relies on predefined profiles targeting limited talent pools, which can lead to the exclusion of high-potential candidates who are not effectively evaluated. Moving forward, Clariant will redefine and prioritize critical skills and create a flexible employee value proposition that corresponds to a wider audience.

Acquiring and retaining expertise to ensure a successful digital transformation remained a focus in 2021. The pandemic pushed growth in this area at an exceptional rate. Changes that usually take years under usual circumstances were introduced and adopted within a matter of months. This had an impact on the daily operations and on the skills and competencies required to fulfill these day-to-day tasks.

In order to keep up the momentum, Clariant engaged in various formats and started to use additional channels. These activities included strategic partnerships with renowned universities and institutions, such as the Impact Hub in Basel, as well as participation in virtual lectures, tech talks, and working circles.

Increasing flexibility during COVID-19

Keeping employees engaged and motivated in times of change and upheaval caused by the COVID-19 pandemic was one of Clariant's major objectives in 2021. The company issued a global flexible Remote Working Policy in the reporting year, which provides guidance in finding the right work-life balance. According to their tasks and in alignment with their line managers, employees can work from home for up to two full working days per week, or a maximum of 40% of their working hours. The line managers may set specific weekdays when all team members are required to be present in the office.

Clariant also switched talent development procedures to a digital learning landscape with multiple new offerings and redesigned existing trainings. Where needed, traditional face-to-face discussions were replaced with combinations of virtual/face-to-face or completely virtual formats to not interrupt the continuous growth of Clariant's employees.

The pandemic has reinforced the value of holistic change frameworks that can adapt to a variety of developments. In 2020, Clariant had started the initiative Change Management@Clariant to enable organizational transformation projects while maintaining agility and smooth operations. In 2021, as part of the initiative, Clariant implemented different change interventions and an overarching rollout plan with the support of an external agency in order to increase employee engagement, information flow, transparency, and motivation.

Employee feedback

Clariant offers diverse platforms to collect employee engagement feedback. For example, in certain periods, monthly team barometer evaluations measure the atmosphere and progress during change and transformational activities. Individual comments are possible to establish new ideas or to suggest further activities. Functional feedback surveys are another frequently used option to check in briefly on the organizational pulse.

Biannually, Clariant conducts pulse surveys with a specified target group randomly selected from the global workforce. Compared to former engagement surveys, this format covers more strategic and Clariant-specific topics and establishes why people want to work for Clariant. The survey results are used for organizational development and help Clariant position itself as an employer of choice.

In 2021, there was a specific pulse survey related to the Clariant purpose. It revealed that Clariant's overall strategy, goals, and sustainability strategy are well understood and supported by Management. A clear majority of responding employees feel safe and energetic at work and enjoy their work. In 2022, Clariant plans to return to conducting annual full-fledged employee surveys in collaboration with an external partner. The metric in focus will be the employee net promoter score (eNPS), which calculates how many people are likely to advocate for the company. Clariant aims to be in the top quartile until 2030.

Evaluating the management approach regarding talent attraction and development includes analyzing the results and impact of diverse talent management initiatives. The feedback collected



after each training course is systematically reviewed. For example, Clariant conducts briefing and debriefing calls with participants of leadership trainings. In addition, a feedback survey is sent out directly after the training, followed by a survey after three months to evaluate the impact on daily work. Other evaluations include competency assessments for key position holders, management appraisals for external or internal placement of key positions, and yearly performance evaluations. All evaluations are documented, transparently shared, and followed up on with individual development planning.

Ratios of standard entry-level wages by gender compared to local minimum wage

Clariant pays wages and salaries that are determined by local, relevant competitive market data rather than by legally defined minimum wages. However, as prescribed by Clariant’s global Employment Policy, minimum wage standards always have to be adhered to by local human resources departments.

Proportion of senior management hired from the local community

At the end of 2021, 58% of all senior managers (Executive Committee and top four management levels) were citizens of – or had an indefinite right to reside in – the country where they were employed. Within the European Union, citizenships of all member states are considered »local.«

Parental leave

Clariant promotes family-friendly job opportunities. All mothers are guaranteed a comparable position upon their return to work for up to one year following the birth or adoption of a child. For the two years following the birth or adoption, Clariant grants all parents a minimum of ten days of paid leave for family purposes in addition to their standard annual vacation.

Considering that all permanent employees of Clariant are theoretically entitled to this provision, this would extend to all 10 370 men and 3 004 women for 2021. In 2021, 176 mothers and 273 fathers took advantage of this opportunity. In the same year, 472 employees

returned to their workplaces, of which 139 were female and 333 were male.

Minimum notice periods regarding operational changes

Clariant complies with all local statutory and operational requirements regarding the provision of information to employee representatives and employees. All employees are promptly informed of all significant operational changes. In addition, Clariant provides regular and ad hoc information to all employees via the intranet as well as information letters from the CEO and Management in all relevant languages. Corporate information sessions such as town hall meetings take place regularly.

DIVERSITY, EQUITY, AND INCLUSION

Diversity, Equity, and Inclusion (DEI) is clearly anchored in Clariant’s corporate purpose and represents an essential part of an inclusive employee culture. Diverse and inclusive teams foster Clariant’s innovative strength and enable the company to better address the needs of its customers. Clariant strives to be a leader in sustainability in the chemical industry as well as in the environmental and social areas, so that it can create societal impact. As we seek to build a culture of possibilities and empower everyone to achieve the greater outcome we want, we need to ensure that every employee is treated with trust, appreciation, and respect regardless of who they are.

Management approach

Clariant is firmly engaged to further promoting DEI within the company. In June 2021, Clariant’s CEO, Conrad Keijzer, publicly shared his personal commitment to drive an inclusive mindset within the company and to take the necessary measures to create a fulfilling workplace where all employees can embrace their true authentic self. The topic is steered company-wide by the Senior Management and the People Development team within Human Resources, and in 2021, a project team with participants across the organization set the ground for Clariant’s DEI strategy. The strategy, along with focus areas, targets, and roadmap, will be published in spring 2022, and regular communication on the progress of its implementation will take place. Business Management will be made responsible for

PROPORTION OF SENIOR MANAGEMENT HIRED FROM THE LOCAL COMMUNITY

	Total 2021	2020	2019	2018	2017
Percentage of Senior Management at significant locations ¹ of operation who are hired from the local community (%)	58	60	60	57	75

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

PARENTAL LEAVE

	Total 2021	2020	2019	2018	2017
Total number of employees who were entitled to parental leave, by gender (in headcounts)	13 374	13 235	17 223	17 382	17 687
Male	10 370	10 191	13 497	13 613	13 986
Female	3 004	3 044	3 726	3 769	3 701
Total number of employees who took parental leave, by gender (in headcounts)	449	445	643	732	644
Male	273	317	432	464	482
Female	176	128	211	268	162
Total number of employees who returned to work in the reporting period after parental leave ended, by gender (in headcounts)	472	471	599	689	611
Male	333	318	419	466	477
Female	139	153	180	223	134



ensuring progress. Along with the execution of its DEI strategy, as of 2022, Clariant will partner on a global and local level with relevant external initiatives, like → CHARTA DER VIELFALT in Germany.

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 DEI area. 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 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 his or her personal abilities, skills, performance, and potential.

Diversity in management positions

The company's structured global succession planning promotes a diversity of profiles for management positions, encouraging cross-business and cross-functional experiences. Over 90% of management positions are filled by nationals from the region in

which the managers are located in, and 95% of all managers are non-Swiss, which reflects Clariant's international footprint and diversity. In an industry traditionally dominated by men, the company achieved a proportion of women of 22% in the total workforce and 15.8% in management level positions.

Diversity in the recruiting process

Clariant values diversity. The company hires and promotes people regardless of their social identity. Diversity in thinking enriches perspectives, challenges established patterns, and lays the path for continuous evolution. The Talent Acquisition teams are mindful of gender-sensitive language in job advertisements, ensuring that all members of target audiences are addressed appropriately. Step by step, all other personnel-related areas at Clariant, such as HR policies, are also being reviewed for inclusive language. In the personnel database, people can choose between the categories female, male, diverse, and not specified. In the reporting year, Clariant had no employees who assigned themselves to a diverse gender or did not wish to indicate their gender.

DIVERSITY OF GOVERNANCE BODIES AND EMPLOYEES

	Total 2021	2020	2019	2018	2017
Percentage of individuals within the Board of Directors (%)					
Male	73	75	75	75	69
Female	27	25	25	25	31
30-50	9	8	0	8	23
Over 50	91	92	100	92	77

NUMBER OF EMPLOYEES BY AGE GROUP

	2021		2020		2019		2018		2017	
	FTEs	Percent	FTEs	Percent	FTEs	Percent	FTEs	Percent	FTEs	Percent
Total	13 374		13 235		17 223		17 901		18 135	
Under 30	1 907¹	14.3	1 896	14.3	2 474	14.4	2 575	14.4	2 563	14.1
Male	1 398	10.5	1 367	10.3	1 761	10.2	1 832	10.2	1 864	10.3
Female	510	3.8	529	4.0	713	4.1	743	4.2	699	3.9
30-50	7 843	58.6	7 798	58.9	10 092	58.6	10 664	59.6	10 888	60.0
Male	5 944	44.4	5 889	44.5	7 844	45.5	8 304	46.4	8 547	47.1
Female	1 899	14.2	1 909	14.4	2 248	13.1	2 360	13.2	2 341	12.9
Over 50	3 624¹	27.1	3 541	26.8	4 657	27.0	4 662	26.0	4 684	25.8
Male	3 028	22.6	2 959	22.4	3 891	22.6	3 870	21.6	3 919	21.6
Female	595	4.4	582	4.4	766	4.4	792	4.4	765	4.2

¹ The sum does not add up as the numbers are rounded.

NUMBER OF INCIDENTS OF DISCRIMINATION

	Total 2021	2020	2019	2018	2017
Total number of incidents of discrimination during the reporting period	0	0	2	3	3



MANAGEMENT FUNCTIONS

	Total 2021	2020	2019	2018
Total Management functions (in FTEs)	676	691¹	812	819
Male	569	575	674	688
Female	107	115	138	131
Senior Management functions (in FTEs)²	190	196	234	248
Male	171	177	209	219
Female	19	19	25	29
Junior Management functions (in FTEs)³	486	495¹	578	571
Male	398	398	465	469
Female	88	96	113	12

¹ The sum does not add up as the numbers are rounded.

² Executive Committee and Management Levels 1-4

³ Management Level 5

Clariant uses a digital interview platform. Thanks to this approach, the company can assess more potential candidates than would be possible with traditional interviews. Unconscious biases linked to criteria such as age, gender, or education are overcome, as the longlist of candidates can be extended. This in turn increases diversity and improves the recruiting process: Applicants are assessed against exactly the same selection criteria.

Support female talent

Clariant is committed to increasing the female share in its management team and beyond. →CLARIANT'S WORLDWIDE FAMILY SUPPORT POLICY and →FLEXIBLE WORKING POLICY are a strong pillar in allowing

BREAKDOWN OF EMPLOYEES PER NATIONALITY

Nationality	2021		2020		2019		2018		2017	
	FTEs	Percent	FTEs	Percent	FTEs	Percent	FTEs	Percent	FTEs	Percent
German	3 922	29.3	4 023	30.4	4 595	26.7	4 619	25.8	4 593	25.3
Indian	1 688	12.6	1 517	11.5	1 798	10.4	1 864	10.4	1 857	10.2
Chinese	1 081	8.1	1 031	7.8	1 181	6.9	1 284	7.2	1 213	6.7
Brazilian	1 053	7.9	981	7.4	1 179	6.8	1 116	6.2	1 142	6.3
Indonesian	618	4.6	620	4.7	724	4.2	726	4.1	716	3.9
Mexican	535	4.0	521	3.9	597	3.5	598	3.3	583	3.2
Spanish	314	2.3	310	2.3	427	2.5	414	2.3	409	2.3
Turkish	290	2.2	282	2.1	396	2.3	400	2.2	436	2.4
Polish	276	2.1	282	2.1	351	2.0	347	1.9	313	1.7
Japanese	258	1.9	260	2.0	279	1.6	269	1.5	266	1.5
Colombian	191	1.4	183	1.4	268	1.6	261	1.5	220	1.2
Argentinian	186	1.4	191	1.4	219	1.3	230	1.3	218	1.2
French	161	1.2	167	1.3	236	1.4	488	2.7	524	2.9
Ukrainian	144	1.1	145	1.1	153	0.9	152	0.8	150	0.8
South African	139	1.0	142	1.1	182	1.1	189	1.1	182	1.0
Swiss	137	1.0	141	1.1	139	0.8	138	0.8	224	1.2
Italian	137	1.0	140	1.1	515	3.0	529	3.0	540	3.0
Malaysian	n.a. ¹	n.a. ¹	n.a. ¹	n.a. ¹	191	1.1	189	1.1	191	1.1
Thai	n.a. ¹	n.a. ¹	n.a. ¹	n.a. ¹	181	1.0	181	1.0	185	1.0
Others (incl. North America, for whom no nationality data is recorded)	2 246	16.8	2 299	17.4	3 612	21.0	3 908	21.8	4 174	23.0

¹ Numbers below 1.0 % threshold



parents in general, and particularly women, to combine professional development and personal life. In addition, Clariant engages itself to encourage more young girls to pursue scientific and technical apprenticeships and studies in the form of school activities. Specific employee resource groups in the United States and Germany allow women to network and exchange.

Ratio of basic salary and remuneration of women and men

Fair payment is fundamental for the company. Regional and local HR departments 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 2021 equaled 96.0% of the average salary of male employees. Departures were not included in these calculations. In 2022, Clariant will continue to analyze potential gender pay gaps and define corrective measures if needed.

Supporting schoolgirls

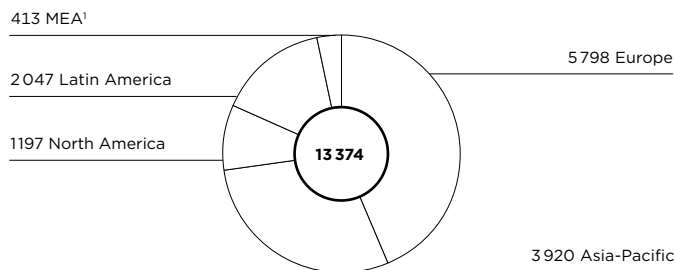
In 2021, Clariant organized with two partner companies in Germany a three-day workshop for interested schoolgirls under the Hashtag #EqualinTech. The purpose of this was to encourage schoolgirls to pursue MINT studies (mathematics, informatics, natural science, and technology), where they are still in the minority. At the workshop, the girls learned about design thinking and coding and even created their own app.

Employee commitment to diversity

Employees are increasingly establishing so-called resource groups. For instance, the »Women Inclusion Network« in Germany organizes networking events and peer coaching groups among interested female colleagues. In North America, three groups have been established in the past few years or are in the course of being established to support women in science; working parents at Clariant; and lesbian, gay, bisexual, transgender, and queer (LGBTQ+) employees. These groups will receive financial support for event organization.

Employee indicators

002 FTEs BY REGION



¹ Middle East and Africa

OCCUPATIONAL HEALTH AND SAFETY

As a global employer, Clariant is committed to promoting a healthy culture in the workplace. Processes regarding occupational safety are top priorities to ensure seamless manufacturing operations, protect the health and safety of Clariant’s employees, and meet legal and reputational requirements. Failing to meet requirements has a direct negative impact on staff morale, labor costs, and productivity, as well as on operational costs. Moreover, incidents of Occupational Health and Safety have a detrimental effect on the company’s brand image.

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. 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 2021, internal audits were carried out in accordance with ISO 45001. The certificate confirming compliance with the standard is available.

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 environment is also anchored in Clariant’s sustainability policy. Occupational Health and Safety affect Clariant as a company in the value chain.

Goals and measures

Clariant aims to achieve zero accidents worldwide. Progress toward zero accidents is linked to bonuses for top management. In 2021, there were 23 lost-time accidents. The company has thus achieved the milestone. In addition, process safety is to be integrated into the daily routine of all operations. Milestones are defined at the Group and business unit levels.

Clariant regularly monitors several key performance indicators: The lost-time accident rate (LTAR), occupational diseases, and work restriction cases are continuously tracked globally by Corporate ESHA and reported to an assigned member of Corporate ESHA. Recorded injuries are continuously tracked and reported quarterly to an assigned member of Corporate ESHA. Additionally, site ESHA continuously monitors safety deviations at each site. On a global level, safety deviations are monitored quarterly.

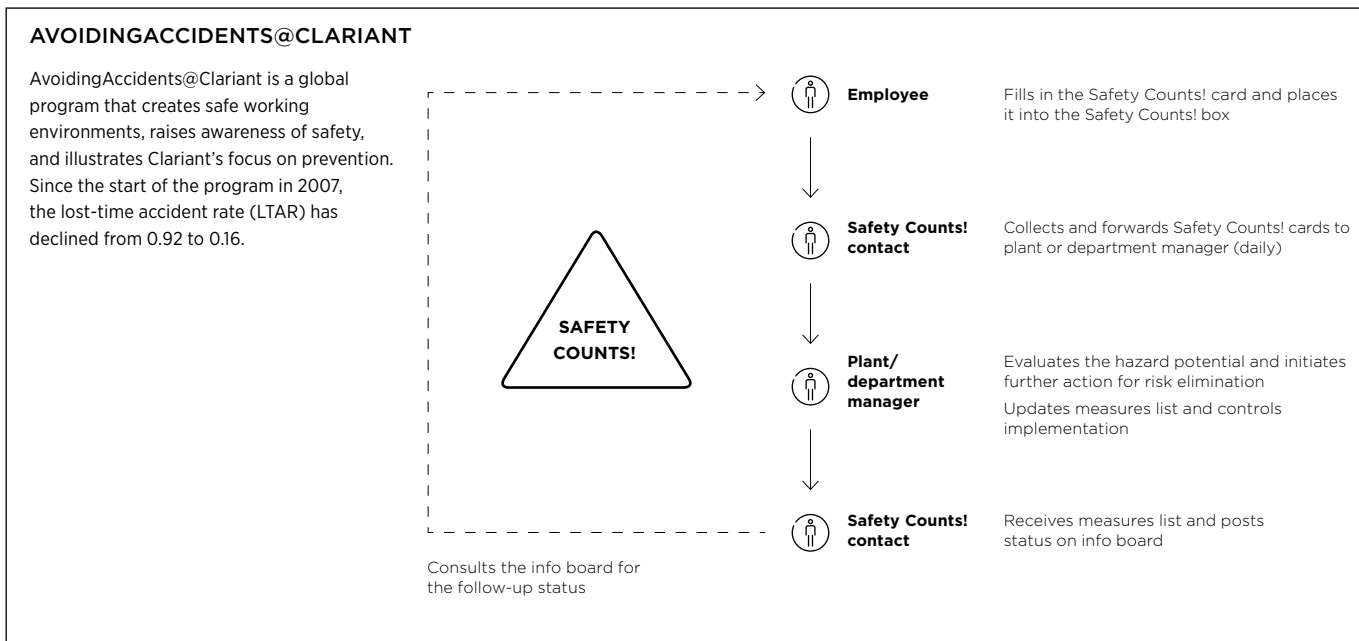


COVID-19 pandemic

During the global health crisis triggered by the coronavirus, protecting the health of all employees has been a top priority for Clariant. In 2021, the company enforced strict hygiene protocols, provided personal protective equipment (PPE) when needed, and procured surgical and FFP2 masks to ensure safe working conditions. Surgical and FFP2 masks were also provided to employees for personal use. With the availability of the vaccine in 2021, Clariant motivated its employees to get vaccinated. In some countries, the company has supported vaccination when endorsed by authorities.

In order to quickly adapt to a changing environment, including constantly updated scientific recommendations and regulatory requirements, Clariant developed more than 30 different response scenarios to react to possible developments in the spread of the pandemic. The scenarios were approved by Group Emergency Management (GEM) and distributed to the regions, countries, and sites. The scenarios were revised to keep them up to date with the increasing knowledge about the pandemic.

Since the beginning of the pandemic, Clariant has provided comprehensive support to its employees worldwide on topics such as working from home, staying healthy, and staying in touch with the team. Clariant relied on an approach developed jointly by the Human Resources, Group Innovation and Sustainability, and Corporate Communications departments: Using facts and encouraging messages, Clariant promotes the same level of knowledge among all employees and external stakeholders. All questions and concerns about the virus were collected and answered in a digital COVID hub that employees can access when needed. In addition to internal measures, Clariant also provides external support: To alleviate the availability problems in the midst of the virus outbreak, Clariant delivered around 15.5 tons of disinfectant free of charge to the »Hilfswerk Osteuropahilfe« in Switzerland. The company managed to maintain the sustainability focus embedded in its DNA even in these turbulent times: It sourced the main ingredient of the disinfectant, ethanol, from Crop Energies, the largest European producer of renewable ethanol.



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.

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 internal audit system ensures quality and triggers continuous improvements.

Handouts on Occupational Health and Safety-related topics

As part of the »Safety Moments« initiative, employees at Clariant have been trained on Occupational Health and Safety-related topics with the help of handouts since 2017. These are presented and discussed, for example, at the beginning of meetings and can be accessed via an internal platform. Currently, there are more than 330 »Safety Moments.« In 2021, several Safety Moments related to COVID-19 were developed and distributed.

Reporting near misses and unsafe situations

To report unsafe situations or near-miss incidents, Clariant's employees can either approach their supervisors directly, submit a report using »Safety Counts!« cards, or utilize an online system at some sites. If employees identify a hazardous situation, they are permitted and encouraged to stop the activity and report to their 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.

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 0.16 in 2021.

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, or 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. 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 this 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 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 Health Hazards.« 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), 85 % of staff are represented. At Clariant, safety issues are also addressed in committees that do not primarily deal with this topic. A working group is established if it is necessary to implement new internal standards or update existing ones. The resulting draft is sent to the different stakeholders in Clariant’s business units and regions to solicit feedback. Feedback and requests for revisions are duly considered before the standard is finalized and approved. The relevant information is subsequently published in the Group Management System (GMS) database and on SharePoint.

WORK-RELATED INJURIES

	Total 2021	2020	2019	2018	2017
Number of fatalities as a result of work-related injury	0	0	0	0	2 ¹
Rate of fatalities as a result of work-related injury (per 200 000 hours)	0	0	0	0	0.0053
Number of high-consequence work-related injuries (excluding fatalities)	2	2	0	1	0
Rate of high-consequence work-related injuries (excluding fatalities) (per 200 000 hours)	0.01	0.01	0	0.005	0
Number of recordable work-related injuries	141	157	232	248	302
Rate of recordable work-related injuries (per 200 000 hours)	1.00	0.95	1.21	1.31	1.57
Number of hours worked	28 440 000	33 262 000	38 556 000	37 796 000	38 134 000

¹ The fatalities disclosure includes employees and contractors.



OCCUPATIONAL ACCIDENTS

	Continuing operations	Discontinued operations	Total 2021	2020	2019	2018	2017
Lost-time accidents ¹	n.a.	n.a.	23	26	28	27	38
Male	n.a.	n.a.	21	26	27	27	34
Female	n.a.	n.a.	2	0	1	0	4
Lost-time accident rate (LTAR) ²	0.15	0.21	0.16	0.16	0.15	0.14	0.20
Male	n.a.	n.a.	0.15	0.16	0.14	0.14	0.18
Female	n.a.	n.a.	0.01	0	0.01	0	0.02
Lost-time accident rate (LTAR)² for contractors	n.a.	n.a.	0.30	0.14	0.22	0.24	0.21
Lost-time accidents by supervised (non-Clariant) workers (included in the overall number of occupational accidents)	1	0	1	1	1	6	2
Male	n.a.	n.a.	1	1	1	6	1
Female	n.a.	n.a.	0	0	0	0	1
Lost workdays (LWDs) caused by occupational accidents	902	72	974 ³	1 229	661	879	1 135
Male	n.a.	n.a.	962 ³	1 229	648	874	1 051
Female	n.a.	n.a.	12	0	13	5	84
Lost workday rate (LWDR)	7.32	3.81	6.85	7.39	3.43	4.68	5.95
Number of cases of recordable work-related ill health	0	0	0	0	3	1	0

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

Tracking health and safety

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.

In 2021, the overall health and safety performance at Clariant's sites further improved. The total number of lost-time accidents decreased from 26 in 2020 to 23 in 2021 with a pro rata decrease in the number of employees (-17%) due to the sale of the Business Unit Masterbatches in the course of 2020. In addition, 13 lost-time accidents occurred involving contractors, which is a strong increase compared to the six accidents in 2020. First aid was required for 79% of all recorded injuries; 16% needed medical treatment; and 5% of recorded injuries were restricted work cases. The most frequent injury types in 2021 were sprains, bruises, and contusions (39%); bone fractures (26%); and burns (18%). In 2021,

no chemical burns, burn injuries, or poisonings occurred. Internal injuries and limb losses each accounted for 4%. The remaining 4% were unspecified injuries. Neither work-related fatal accidents nor recognized occupational illnesses were recorded in 2021.

The lost-time accident rate (LTAR) of 0.16 accidents per 200 000 hours of work remained stable compared to 2020. The total number of lost workdays decreased significantly from 1 229 in 2020 to 974 in 2021, representing a decrease of over 20%. This indicates that job-related injuries were less severe in 2021 than in 2020. Accordingly, the lost workday rate (LWDR) decreased from 7.39 workdays lost per 200 000 hours of work in 2020 to 6.85 workdays lost per 200 000 hours of work in 2021.



CUSTOMER RELATIONSHIPS

Customer Relationships refers to establishing and continuously enhancing relationships with customers. This includes engaging with customers, taking initiatives to support their goals, ensuring their welfare, and building and developing relationships with mutual trust.

Customer engagement lies at the core of Clariant’s commercial strategy. The company is committed to understanding its customers’ needs, to adding value for them by delivering innovative, competitive, and sustainable solutions, and to creating continuous, profitable growth. In recent years, Clariant has built additional marketing capabilities in its business units to continue its journey from a product-driven to a customer-centric organization.

Establishing and maintaining relationships with its customers is important for Clariant throughout its complete value chain – from the procurement of raw materials to the end-consumer markets.

Management approach

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.

In January 2021, Clariant’s Commercial Excellence initiative became part of Corporate Planning & Strategy, creating an even stronger bond between building and executing strategies. Corporate Planning & Strategy reports directly to the Executive Committee. Its pricing, sales, and digital commercial teams support the business units in developing and implementing actionable commercial growth plans.

CUSTOMER RELATIONSHIPS

	Continuing operations	Discontinued operations	Total 2021	2020	2019	2018	2017
Customer interviews as part of marketing and strategy initiatives	287	n.a.	n.a.	132	404	538	515
Interviews with industry experts as part of marketing and strategy initiatives	82	n.a.	n.a.	75	144	150	59
Survey responses obtained from customer contacts			¹	1 735	¹	2 791	¹
Customers who want to continue doing business with Clariant (%)			¹	88	¹	90	¹
Customers who plan to intensify the business relationship (%)			¹	82	¹	77	¹
Net Promoter Score (NPS) (%)			¹	42	¹	29	¹

¹ Surveys are conducted every two years.

Customer dialog

Clariant aims to strengthen the customer experience further. Therefore, it increases interactions through ongoing dialog with existing customers, new prospects, and other partners along the value chain to uncover new business opportunities. Its customer dialog flagship project is the biennial customer satisfaction survey, which provides comprehensive customer feedback. The next survey will take place in 2022.

Clariant also introduced its online customer portal → CLARIHUB, which was used by the Business Unit Industrial & Consumer Specialties (ICS) in 2021 to get into direct contact with its customers. The Clarihub portal provides them with an individual overview of their interactions with the company. For example, they can track key metrics or find reference documents. In addition, they receive relevant information such as FAQs and troubleshooting tips, as well as company and product details. While Clarihub provides customers with an extra channel for communication and queries, it is also helpful for Clariant to derive additional oversight and visibility.

In 2021, Clariant sales teams made increasing use of the company’s new customer relationship management system. It provides employees with a guided process, helping them to prepare and manage business opportunities in a transparent and productive manner.

Customer Relationships and COVID-19

Due to the COVID-19 pandemic, Clariant could not conduct its well-trying marketing trainings and workshops in 2021, as they require face-to-face interaction. Nevertheless, the business units conducted regular customer and expert interviews. In addition, Clariant expanded offers to its customers via cross-selling. For example, in 2021, Business Unit Industrial & Consumer Specialties developed an internal engine to identify customers who might benefit from cross-selling. Following a dedicated process, they are provided with specific product offerings in order to increase their satisfaction when they find out that Clariant can fulfill more of their purchasing needs.

Instead of face-to-face dialogs, the company organized more than 100 webinars with 20–500 participants each and enhanced online access via its website. For example, customers of Business Unit Industrial & Consumer Specialties can now order samples and download technical and safety data sheets through an online customer portal.



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 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.

To validate this internal perspective, Clariant also interviewed more than 50 customers about the performance of Clariant compared to its competitors regarding all touchpoints throughout the customer journey.

In this project, Clariant identified and prioritized key improvement levers per region. It thoroughly analyzed underlying processes and pivotal touchpoints and made improvements to achieve better responsiveness.

Data-driven strategies

The pricing, sales, and digital commercial teams of Corporate Planning & Strategy accompanied a growing number of data-driven initiatives on customer segmentation, cost-to-serve analysis, customer engagement, value-based pricing and selling, sales enablement, and cross-selling in 2021.

For example, Clariant introduced 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.

Additional price management tools help the company to integrate different perspectives and information, to arrive at optimum prices, and to track them. In 2021, a real-time cost pass-through analysis helped to better control the impact of cost drivers on end prices.

Clariant also started a commercial data-lake project in 2021. From 2022 onwards, the data lake will support the company's advanced analytics strategy by creating prescriptive and predictive models to transform insights into impact.

Customer privacy

In 2021, 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 Group Innovation & Sustainability, together with the Human Resources, Legal, and Procurement departments, manage human and labor rights at Clariant. Currently, Clariant does not yet have specific goals and targets in place for human and labor rights.

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 make reference to the company's Supplier Code of Ethics. It extends to all its suppliers and their contractors. Clariant regularly assesses its suppliers in relation to social, governance, and environmental topics via the Together for Sustainability (TfS) platform, a cooperation with other large chemical companies.

Clariant's → [2018 GLOBAL EMPLOYMENT POLICY](#) and its employment standards guidelines protect workers' rights with regard to non-discrimination, 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, the Roundtable on Sustainable Palm Oil (RSPO), and EcoVadis.

Upcoming priorities

Clariant regularly updates its human and labor rights framework in anticipation of upcoming legislation.

In 2021, the company assessed its processes in relation to the Responsible Business Initiative in Switzerland. Even though the initiative itself was rejected in November 2020, a counterproposal based on it came into effect on 1 January 2022. It demands increased reporting on environmental and social issues and introduces due diligence requirements for multinational companies based in Switzerland, particularly concerning child labor and conflict minerals. → FIGURE 003

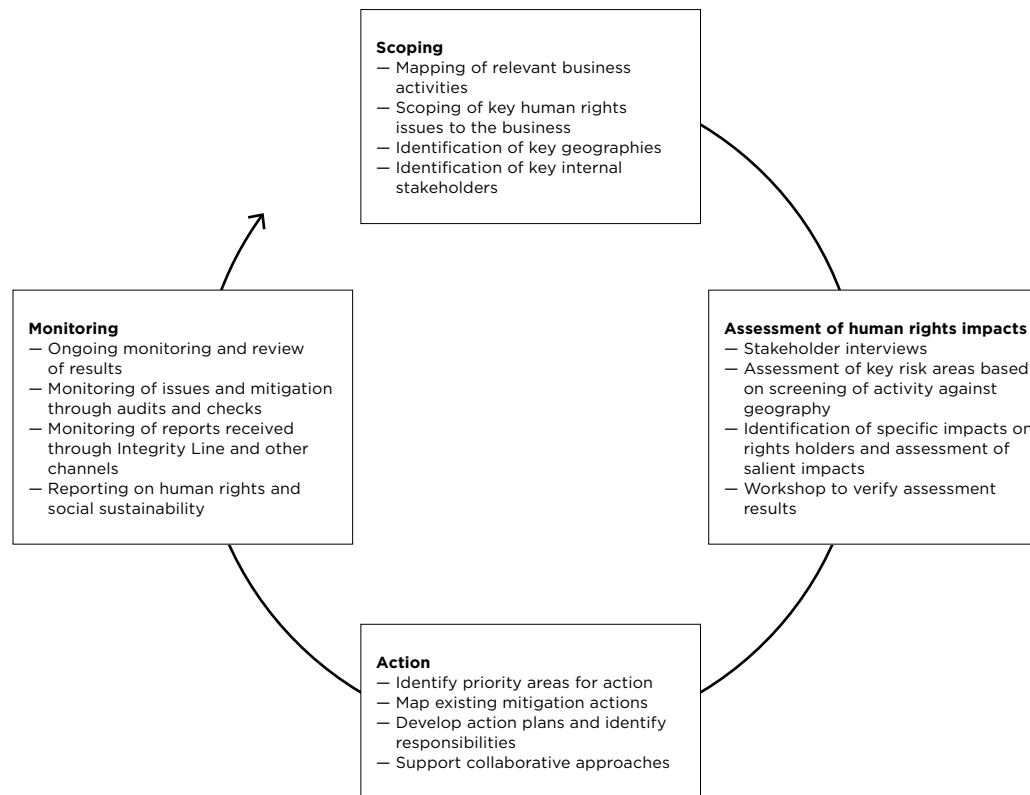
A new supply chain due diligence law will come into force in Germany in 2023 (for companies with more than 3 000 employees, which applies to Clariant’s German subsidiaries) and 2024 (for companies with more than 1 000 employees). Companies will then be responsible for basic human rights in their entire supply chains – in particular with respect to forced and child labor. Environmental damages are relevant to the extent that they violate human rights.

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.

003 KEY ELEMENTS OF THE HUMAN RIGHTS DUE DILIGENCE PROCESS



In 2016, Clariant carried out a human rights due diligence assessment with the support of external human rights experts. 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 a number of priority activities, including both internal and external risk factors, such as complex subcon-

tracting arrangements and vulnerabilities of specific groups. A particularly thorough investigation took place for those areas identified as high-risk in the 2016 human rights due diligence review.

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 geographical origin of particular raw materials. In 2020, Clariant reviewed its conflict minerals approach to ensure compliance with the new EU conflict minerals legislation. Clariant also complies with the Swiss ordinance on due diligence and transparency with respect to minerals and metals from conflict zones as well as child labor.

Based on its 2021 Palm Oil Policy, Clariant started a comprehensive analysis of environmental and social sustainability with regard to → **PALM-BASED RAW MATERIALS**. To facilitate the transformation in palm oil procurement, Clariant intensified its collaboration with suppliers in order to increase transparency in the palm oil value chain.

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. Clariant assesses this aspect of its suppliers via the Together for Sustainability (TfS) platform. This evaluation plays an important role in determining the extent to which Clariant appropriately mitigates adverse human and labor rights impacts.

In 2021, Clariant carried out a review of the legal requirements, conditions, and control measures related to contract labor in India. It found that the country organization has implemented a clear and comprehensive process including detailed evidence, checklists, and regular communication with authorities.

Clariant knows of no cases in 2021 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 Together for Sustainability (TfS) 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 or violations of human and labor rights. → **READ MORE IN BUSINESS ETHICS & COMPLIANCE**

Human and labor rights clauses in investment agreements and contracts

The Investment Subcommittee of the Executive Committee (EC) must approve all investments with a total volume of more than CHF 1 million. The subcommittee bases its decision on financial, strategic, and sustainability criteria, which also include human and labor rights aspects.



Planet

»Planet« includes the renewable and nonrenewable environmental resources and processes that support or affect the company’s prosperity and its environment. Examples include air, water, and land resources that Clariant utilizes for its activities.

Four material topics are related: »Resource Efficiency and Environmental Protection,« »Climate Protection,« »Circular Economy,« and »Bio-based Economy.«

RESOURCE EFFICIENCY AND ENVIRONMENTAL PROTECTION

Clariant is strongly committed 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. The corresponding technological and behavioral changes affect Clariant’s complete value chain, from the raw material feedstock to the end-consumer markets.

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.

In 2022, Clariant incorporated its Environment, Safety, and Health Affairs (ESHA) department into the service unit Group Innovation & Sustainability. During 2021, the department was part of the service unit Group Operational Excellence. The company took this step to increase synergies and ensure continuous focus and attention from the Executive Committee. Specialized ESHA teams in the business units and country organizations set and monitor the standards for managing environmental protection and resources.

There are quarterly coordination meetings between corporate, regional, and business unit ESHA teams. Full operational responsibility, however, lies with each site, which also nominates a responsible person for day-to-day topics. Business unit ESHA teams have very regular, sometimes weekly, meetings with the individual sites. By 2021, 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). It allows for a monthly update and monitoring of Scope 1 and 2 emissions on an aggregated level by business unit, site or plant, and type of energy. The SOC also monitors other sustainability KPIs at the site level, which contribute significantly to Clariant’s 2030 sustainability targets. In addition, the Clariant Project Tracking Tool (CPTT) tracks the implementation of individual improvement projects related to environmental performance and the related improvements themselves. Regarding Scope 3 emissions, a dashboard for purchased emissions was also developed to monitor progress on a monthly basis.

New sustainability targets

In 2021, Clariant published new sustainability targets. They are the result of a collaboration between Group Procurement and Innovation. These targets put Clariant on the path to achieve its vision of becoming a climate-neutral company by 2050.

In line with the Science-Based Targets initiative (SBTi), the company’s new → **SCIENCE-BASED TARGETS** demand ambitious absolute reductions by 2030, compared to 2019:

- Scope 1 and 2 greenhouse gas emissions – 40 %
- Scope 3 greenhouse gas emissions from purchased goods and services – 14 %



PLANET OVERVIEW

	Continuing operations	Discontinued operations	Total 2021 ^{1, 2}	2020 ^{1, 2}
Total greenhouse gas emissions (Scope 1 & 2, CO ₂ equivalents) (in m t) ³	0.71	n.a.	n.a.	0.69
Total indirect greenhouse gas emissions for purchased goods and services (Scope 3, CO ₂ equivalents) (in m t) ³	2.70	n.a.	n.a.	3.12
Water intake (without »pass-through« water) (in m ³ /t production) ³	2.17	n.a.	n.a.	2.35
Wastewater generation (in m ³ /t production) ³	1.48	n.a.	n.a.	1.67
Sites in areas of high water stress with advanced water management (%) ³	56	n.a.	n.a.	n.a.
Landfilled nonhazardous waste (in kg/t production) ³	51.5	n.a.	n.a.	56.5
Hazardous waste (in kg/t production) ³	8.8	n.a.	n.a.	11.4
Nitrogen oxide (NO _x) emissions (in kg/t production) ³	0.12	n.a.	n.a.	0.13
Energy consumption (in kWh/t production)	627	5 290	733	758
Greenhouse gas emissions (Scope 1 & 2, CO ₂ equivalents) (in kg/t production)	164	1 100	185	205
Indirect greenhouse gas emissions (Scope 3, CO ₂ equivalents) (in kg CO ₂ e/ CHF sales)	0.83	0.76	0.82	0.87
Total water intake (without »pass-through« water) (in m m ³)	10.4	5.0	15.4 ⁴	41.0
Total wastewater generation (in m m ³)	7.7	3.5	11.2	11.4
Total quantity of waste (in thousand t)	n.a.	n.a.	225.8	220.6
Total energy consumption (in m kWh)	2 713.0	531.4	3 244.0	3 071.0

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 difference in the sum of continued and discontinued operations compared to the Group total is due to the resource consumption of nonproduction sites.

³ This is a target KPI and refers to the production activities of continuing business only.

⁴ 2021 data is reported with a new definition of water intake without »pass-through« cooling water. Therefore, it is not comparable to previous years.

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 named specific intermediate reduction targets for 2022.

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 36.5 million in 2021, including CHF 21.2 million for environmental protection. The expenditures for environment, safety, and health protection in operative facilities amounted to over CHF 131.1 million, including CHF 78.2 million for environmental protection.

Since 2019, Clariant has made progress related to science-based and sustainable operations targets. → FIGURE 004

Since 2019, CO₂ emissions (Scope 1 & 2) increased by 3%, while the production volume increased by 8%. The under-proportional increase in GHG emissions has been achieved by an accelerated transition to renewables, driven by a transition from coal to bio-diesel and a higher share of green electricity. Both Energy Attributes Certificates (EACs) and a higher share of green electricity supplied via the grid contributed. A hazardous waste generation increase is driven by a new product line in the Business Area Catalyst.

Other goals and targets

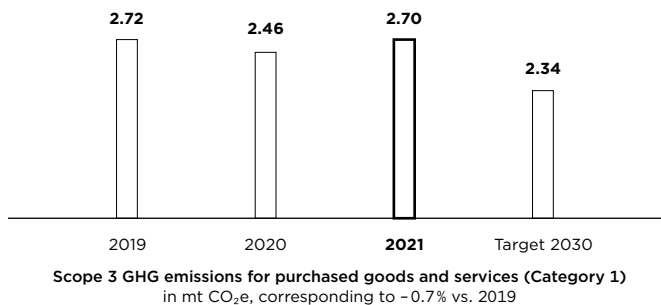
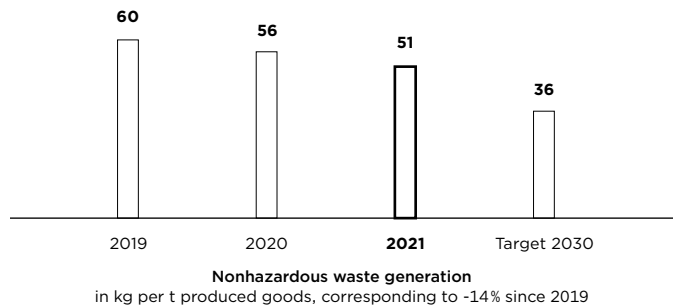
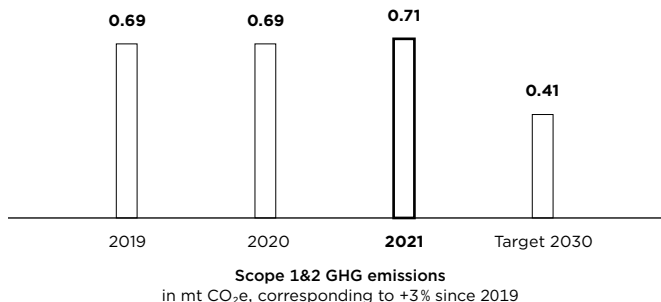
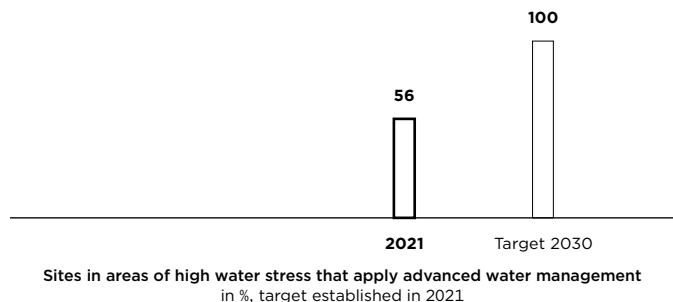
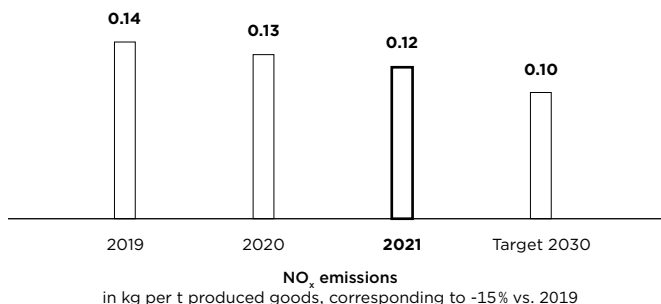
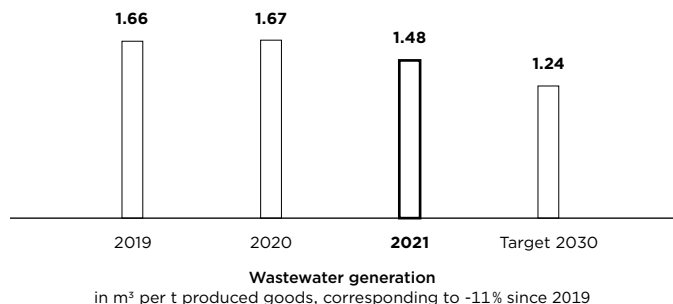
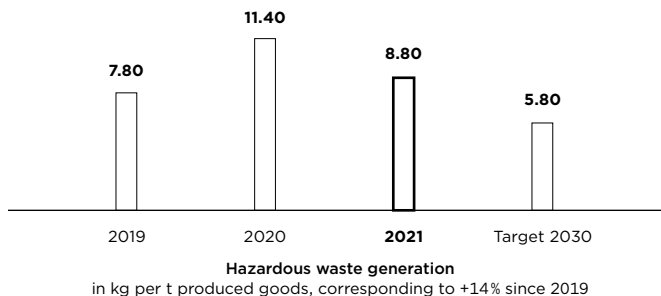
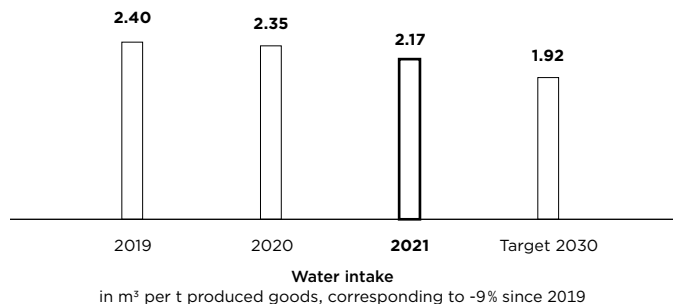
Clariant abides by the principles of the Responsible Care® Global Charter, which was initiated by the members of the International Council of Chemical Associations (ICCA). It creates a global vision and highlights the commitment of the industry to continuous improvement in the environmental, health, 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 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.



004 PROGRESS TOWARD 2030 TARGETS

All diagrams refer to the production activities of continuing business only (=without Pigments).



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. At the end of 2021, in order to realize synergies, the new service unit Group Operational Excellence (GOE) took over the management of both these programs. They are now under the umbrella program »Sustainable Operations« within Group Innovation & Sustainability (GIS), which coordinates and consolidates the activities in all business units following sustainable operation roadmaps.

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 Clariant Project Tracking Tool, Clariant measures the outcome of eWATCH™ by cost savings and project tracking (112 projects in 2021). Through Sustainable Operations Cockpit, Clariant measures the outcome of eWATCH™ by CO₂ impact. Since 2013, Clariant has saved a total of CHF 38.4 million through eWATCH™ by implementing energy efficiency measures and energy-purchasing optimizations. In 2021 alone, the savings amounted to CHF 4.5 million.

Clariant Production System Yield, Energy, Environment initiative (YEE)

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. It analyzes yield, energy, and the environment of a specific unit with the aim to find 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. Group Operational Excellence systematically assesses the site maturity against the blueprint during routine site assessments and proposes improvement measures. This creates a comprehensive picture of energy optimization potential.

Since its inception in 2012, YEE has saved more than CHF 86 million. In 2021 alone, YEE allowed for cost savings of CHF 6 million.

Energy

Clariant continuously reduces energy consumption in its operations. 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.

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, US; and Suzano, Brazil

Other sites in Brazil and Mexico as well as the site at Bonthapally, India, partially use renewable electricity.

Furthermore, Clariant proceeded to certify its sites according to the new ISO 50001 standard for energy conservation. It passed the surveillance audits globally and prepared for the updated standard at various 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. Since 2019, energy consumption per ton of produced goods has decreased by 5%.

The company consumes energy in the form of process heat, steam, cooling, and electricity. As 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.

Electricity is required for electric motor drives in mixers, pumps, and other process-engineering equipment; for measurement and control technology; as well as for lighting. Clariant used 99.7% grid energy in 2021, which is an indirect use of energy from different primary sources. Small energy procurements, such as transport services during business trips, are insignificant in Clariant's overall energy balance. Clariant endeavors to increase its share of energy obtained from renewable sources on an ongoing basis. In 2021, it was at 9%, considering all measured energy sources.



ENERGY CONSUMPTION

	Continuing operations	Discontinued operations	Total 2021 ¹	2020	2019 ¹	2018	2017
Total energy consumption within the organization (in m kWh)	2 713	531	3 244	3 071²	3 204	3 209	3 245
Relative energy consumption (in kWh/t production)	627	5 290	733	758	754	739	706
Total fuel consumption within the organization (in m kWh)	1 678	181	1 859	1 653	1 795	1 781	1 777
Oil	42	29	70	49	60	83	87
Natural gas	1 228	57	1 285	1 154	1 248	1 254	1 231
Diesel	119	9	128	95	113	54	57
Energy crops (bagasse/briquettes)	22	75	97	65	125	121	122
Other (e.g., coal, woodchips, waste)	267	11	279	289	235	269	280
Total electricity consumption (in m kWh)	548	62	610	626	704	768	844
Total steam consumption from outside the organization (in m kWh)	489	270	759	685	685	660	626

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 across the entire life cycle. The company aims to help its customers reduce their energy consumption. For this purpose, Clariant reworked its assessment criteria in 2021 and will implement them in 2022. → READ MORE IN PRODUCT STEWARDSHIP

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 cost 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. Before 2021, it included cooling water in the calculation of total water consumption, even though it returns most cooling water to the environment after use in cooling cycles (not contaminated pass-through water). For 2021, the company revised its definition of the indicator and changed the name to »water intake« to exclude pass-through cooling water (sustainability 2030 target KPI). In 2021, of the 15.4 million m³ total water quantity that the company took in, it used about 8.3% for cooling production plants, 68.3% for production processes, and 23.4% as a product component (sold with the product to customers) or for steam/ice generation, irrigation, or sanitary purposes. Water intake per ton of produced goods – one of the target KPIs – decreased from 2.35 m³ in 2020 to 2.17 m³ in 2021 due to water efficiency improvements and less water-intensive production processes.

WATER WITHDRAWAL AND INTAKE

	Continuing operations	Discontinued operations	Total 2021 ¹	2020	2019 ¹	2018	2017
Total volume of water withdrawn (in m m³)	25.2	17.3	42.5	40.8²	44.0²	49.0²	49.0²
Surface water	n.a.	n.a.	6.8	6.3	7.5	8.0	7.6
Groundwater	n.a.	n.a.	5.2	5.2	5.7	8.9	9.1
Seawater	n.a.	n.a.	0.1	0.2	0.1	0.1	0.1
Third-party water	n.a.	n.a.	30.4	29.0	30.9	31.9	32.1
Total water intake/consumption (in m m³)	10.4	5.0	15.4³	41.0	44.3	49.0	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.



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.

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. For example, there were 2 046 mg of COD per liter of wastewater in 2021, which was a reduction of 18% from 2020 to 2021 and coincided with a reduction of fees and production costs.

Before transferring the effluents to third party or municipal wastewater treatment plants, Clariant often pretreats wastewater at its own sites in a multi-stage 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 2021, wastewater generation per ton of production decreased to 1.5 m³ from 1.7 m³ in 2020.

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 2021, a fraction of Clariant production sites (<20%) were situated in areas under water risk and that around 30% of the total water intake from continuing business was from sites identified to be under water risk/stress. 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.

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 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 Initiative (YEE), 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.

WATER DISCHARGE

	Continuing operations	Discontinued operations	Total 2021 ¹	2020	2019	2018	2017
Total volume of planned and unplanned water discharge to all areas (in m m³)	7.7	3.5	11.2	11.4	11.9	12.6	12.7
Surface water	n.a.	n.a.	7.5	7.7	7.9	8.2	10.0
Groundwater	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Seawater	n.a.	n.a.	0.5	0.4	0.5	0.5	0.6
Third-party water treatment	n.a.	n.a.	3.1	3.2	3.5	3.6	2.0

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.



WASTE BY TYPE AND DISPOSAL METHOD

in thousand t	Continuing operations	Discontinued operations	Total 2021	2020	2019 ⁴	2018	2017
Total weight of hazardous waste, with a breakdown by the following disposal methods where applicable:¹	n.a.	n.a.	59	63	61	55	56
Recycling ²	n.a.	n.a.	13	17	16	23	23
Landfill ²	n.a.	n.a.	14	11	14	8	7
Treatment ²	n.a.	n.a.	33	35	31	37	41
Total weight of nonhazardous waste, with a breakdown by the following disposal methods where applicable:¹	n.a.	n.a.	270	259	277	177	142
Recycling ²	n.a.	n.a.	30	31	21	20	27
Landfill ²	n.a.	n.a.	226	221	248	148	107
Treatment ²	n.a.	n.a.	14	7	8	10	9
Total waste (hazardous and nonhazardous)¹	310	20	329³	328	337⁵	232	198
Total waste (hazardous and nonhazardous) (kg/t production)¹	72	195	74	81	79⁵	53	43

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.

Clariant adheres strictly to local regulations and thereby ensures that it disposes of its waste safely. Certified companies, which comply fully with all requirements of transport and waste legislation, transport its hazardous waste. Clariant arranges transportation according to the plant the waste originates from, the amounts that accrue during the period, the properties of waste components, and how the hazardous waste can be recycled or disposed of.

In 2021, Clariant's waste generation decreased by 9%, falling from 80.8 kg to 74.4 kg per ton of production. The total waste generated increased by less than 1 % despite an significant increase in production. The decrease in hazardous waste generated is due to waste reduction projects at different sites. In addition, non-hazardous waste did not increase in proportion to the increase in production because more intermediates were sold in 2021 at Business Unit Functional Minerals sites. Most of Clariant's nonhazardous waste is from the neutralization of acidic wastewater in the Business Unit Functional Minerals.

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

	Total 2021	2020	2019	2018	2017
Process safety event rate ¹	0.46	0.36	0.48	0.46	0.35
Number of significant spills	6	17	2	4	3
Total volume of significant spills (m ³) ²	13.24	78.69	1.30	6.70	110.15

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.

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 Centre (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 in order to avoid major incidents. It categorizes them as process safety events (PSEs) according to criteria stipulated by the International Council of Chemical Associations (ICCA) as part of the ongoing improvement for the process safety of production systems. In addition, Clariant has developed methodologies and standards to investigate PSEs with the aim of setting the adequate corrective measures to avoid the recurrence of such events at its sites and production plants.

In 2021, Clariant's rate of process safety events increased from 0.36 to 0.46. In total number of cases, there were only six more cases (66) than during the pandemic year 2020. Of them, 91% (60) 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. This definition changed in 2020, so numbers are not comparable with 2019. The process safety severity rate in 2021 decreased to 0.63 from 0.73 in 2020. After a process safety event, Clariant conducts an investigation to determine its roots and establish corrective measures to avoid recurrence.



For 2021, the number of significant spills decreased from 17 to six with a total volume of 13.2 m³. 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 2021, 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).

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.

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.

Noncompliance with environmental laws and regulations

Clariant has internal environmental, safety, and health control guidelines. They prevent breaches of internal and external regulations.

In 2021, Clariant had to pay zero substantial fines and was imposed six nonmonetary penalties for noncompliance with environmental laws and regulations.

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. Therefore, it has a vision for net zero operations and transition to green energy by 2050.

Decreasing pollution is not only a social mandate, but also part of global legislation. Currently, legislators around the world implement 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, nearly 190 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 it to 1.5 °C.

The European Union (EU) issued its European Green Deal in 2020, setting the aim to become climate-neutral by 2050. The first intermediate step is the EU 2030 Climate Target Plan, which provides for a reduction of greenhouse gas emissions by at least 55% by 2030, compared to 1990. Likewise, in 2021, China announced its plans to achieve carbon neutrality by 2060. Clariant monitors and controls air emissions of all sites rigorously and strictly complies with all regulations that result from global legislation.

A growing number of business stakeholders also focus on the issue. Customers demand low-carbon alternatives and renewable energy sources, while financial players show an increasing interest in climate-resilient companies. 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.

Management approach

Climate change management is the responsibility of Group Innovation & Sustainability (GIS) and Group Operational Excellence (GOE). Within GIS, the Sustainability Transformation team manages the topic. Within GOE, the Corporate Environmental, Safety, and Health Affairs (ESHA) team is responsible. GIS and GOE work closely together with the business units and with other departments such as Group Procurement Services to reduce Clariant's operations and supply chain impacts, delivering low-carbon solutions.

Climate policies

Clariant is on the path to net zero operations. 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 RESOURCE EFFICIENCY](#)

In 2021, the company also started to implement a roadmap as a way to achieve its defined climate targets by delivering emission reduction projects. Clariant coupled the roadmap with additional measures, for example, an internal carbon-pricing system to improve its carbon footprint. The scheme applies a monetary value of CHF 50 per ton of CO₂ equivalents for all major capital expenditures, mergers, and acquisitions.

Furthermore, Clariant introduced a Group Management Bonus Plan (GMBP) with carbon emissions reduction as the top priority.

Since 2021, the company has calculated management bonuses in relation to the implementation of emission-reduction projects.

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. With the EcoTain® label, Clariant identifies best-in-class solutions resulting from the PVP, which enables customers to make informed purchasing decisions that protect the climate. → [READ MORE IN RESOURCE EFFICIENCY](#)

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 and 2 emissions by 40% and Scope 3 emissions from purchased goods and services by 14% by 2030. 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 CURRENT STATUS OF TARGETS.](#)

Scope 1 and 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. Greenhouse gases, like methane (CH₄) and nitrous oxide (N₂O), are measured locally and included in the consolidated calculation.

Clariant's indirect emissions (Scope 2) are due to external energy purchases, primarily 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.

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 and 2 emissions, it focuses on efficiency projects, purchases green electricity, and uses alternative, low-carbon fuels. → [READ MORE IN RESOURCE EFFICIENCY](#)

EMISSIONS

	Continuing operations	Discontinued operations	Total 2021 ¹	Continuing operations 2020	Total 2020	Continuing operations 2019	2019
Total emissions (in m tCO₂e)	0.71	0.11	0.82	0.69	0.83	0.69	0.86
in kg/t production	164	1 100	185	178	205	172	202
Gross direct (Scope 1) GHG emissions (in m tCO ₂ e)	0.37	0.02	0.40	0.36	0.39	0.37	0.40
Direct emissions (Scope 1) in kg/t production	85	200	90	94	96	93	93
Gross market-based energy indirect (Scope 2) GHG emissions (in m tCO ₂ e)	0.34	0.09	0.42	0.31	0.41	0.32	0.46
Indirect emissions (Scope 2) in kg/t production	79	900	95	79	108	79	109

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.



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 2021 ¹	2020	2019	2018	2017
Total inorganic emissions	900	95	995	915	839	847	930
NO _x	510	56	566	540	613	618	634
SO _x	286	37	323	248	172	180	241
Hydrogen chloride HCl	33	2	35	45	33	33	40
Ammonia NH ₃	71	0	71	82	21	16	14
Total organic emissions (VOCs)	307	67	374	413	543	439	208
Particle emissions (fine particles) (in t)	289	3 383	3 671	293	201	294	380
Particle emissions (fine particles) (in g/t production)	67	33 825	834	71	47	68	83

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.

Since 2019, Clariant’s direct and indirect emissions (Scope 1 and 2) from continuing business increased by 3% while the production volume increased by 7%. Accordingly, the Scope 1 and 2 emissions per ton of production decreased by 5%. In 2021, Scope 1 and 2 emissions increased by 6% year-on-year, while the production volume increased by 12%. The Scope 1 and 2 emissions per ton of production decreased by 8%. This reduction was driven by an accelerated transition to renewables, specifically from coal to biofuel at some sites, and a higher share of green electricity purchased.

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

The majority of greenhouse gas emissions at Clariant fall under »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). In 2020, Clariant analyzed the carbon footprint of purchased raw materials. In 2021, 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 work stream focused on increasing transparency and enabling emission reductions in the value chain. → READ MORE ABOUT TFS

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 industry average databases 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. This monitoring allows the company to generate transparency, identify hotspots and reduction opportunities in its value chain, influence suppliers, and induce innovation. Between 2020 and 2021, Clariant’s Scope 3 emissions from continuing business increased by 8%, primarily due to increased emissions from purchased goods by 10%. Compared to 2019, the Scope 3 emissions of the continuing business have decreased by 3%, while the purchased

INDIRECT (SCOPE 3) GHG EMISSIONS

	Continuing operations	Discontinued operations	Total 2021 ²	2020 continuing operations	Total 2020	2019 continuing operations ¹	Total 2019 ¹
Gross indirect (Scope 3) GHG emissions (in m t CO₂e)	3.61	0.69	4.31³	3.34	4.20	3.73	4.78
Gross indirect (Scope 3) GHG emissions (in kg CO₂e/CHF sales)	0.83	0.76	0.82	0.87	0.81	0.85	0.73
Purchased goods and services	2.70	0.50	3.19 ³	2.46	3.12	2.72	3.44
Fuel- and energy-related activities (not included in Scope 1 or Scope 2)	0.16	0.16	0.32	0.13	0.27	0.14	0.29
Upstream transportation and distribution	0.11	0.01	0.12	0.11	0.12	0.12	0.17
Downstream transportation and distribution	0.14	0.00	0.15 ³	0.12	0.12	0.13	0.14
End-of-life treatment of sold products	0.50	0.02	0.52	0.52	0.56	0.62	0.76

¹ The data has been restated in consideration of changes in estimates or discovery of errors in previous years’ data as part of the 2030 sustainability target-setting activities (with 2019 baseline).

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.



goods and services emissions have decreased by 1%. In relation to sales, the emission intensity of Clariant 2021 continuing business has decreased by 5% compared to 2020 and by 3% compared to 2019. This reflects the improvement projects executed during the year, while the remaining strategic roadmap will be the continuously implemented in the upcoming years.

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.

Task Force on Climate-Related Financial Disclosures

The framework developed by the Task Force on Climate-Related Financial Disclosures (TCFD) 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.

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. In the coming years, it will report on risks and opportunities according to TCFD with increasing granularity as it develops deeper insights.

Clariant’s approach for the first TCFD reporting year was driven by the Sustainability Transformation team, 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 into the risks and opportunities assessment, an enhanced scenario analysis considering different climate scenarios, and a more detailed development of corresponding strategies.

Governance

Clariant is committed to reducing its footprint and helping customers and downstream users improve their sustainability performance.

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 new 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. The committee meets at least four times a year. It monitors and assesses sustainability policies and strategies, including climate risk management. It also monitors sustainability KPIs, including Scope 1, 2, and 3 emissions reductions. 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 Officer (CTO) ex officio.

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 Transformation Officer, who is a member of the Executive Committee, as well as the Chief Technology Officer as co-chair, and includes all EC members, the head of Sustainability Transformation, the innovation heads of the business units, and the head of the GIS Program Management Office as permanent members.

CLIMATE-RELATED OPPORTUNITIES

WELL BELOW 2°C SCENARIO

Category	Major opportunities	Time horizons	Main initiatives
Products/ services and markets	Increased corporate value and revenue from products with innovative technology that can contribute to mitigation and adaptation of climate change	Short to long term	<p>Clariant has a portfolio of leading industrial catalysts, as well as low-carbon intensity and circular products, which help our customers achieve their climate targets. Such products may experience increased demand.</p> <p>Automated calculation and disclosure of product carbon footprints</p> <p>Execution of BU strategies for low-carbon products, also via → PVP (R&D) screenings for all products in development, ensures early identification of substitution threat or particularly high climate pressure. → IDEA TO MARKET process ensures customer voice in product design, lowering the likelihood of developing low-carbon products missing market needs.</p> <p>GHG impact as key criteria for segment product portfolio strategy to ensure portfolio competitiveness in low-carbon technologies</p> <p>Consistent monitoring of policy developments (e.g., Advocacy forum as a place to discuss policy developments and their impact on the company)</p> <p>Use of GHG-related policy and market pressures as key criteria for prioritizing segment product portfolio strategy to ensure competitiveness in low-carbon technologies</p>



At an operational level, two core teams led by the Sustainability Transformation group 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 Committee for approval.

Strategy

Clariant has conducted an initial qualitative assessment of its climate-related transition, physical risks, and opportunities. To this end, Clariant considered the climate change mitigation scenario that includes an increase in global temperature by less than 2°C above preindustrial levels (the »well below 2°C scenario«). Additionally, the assessed risks and opportunities were assigned to three time horizons (short-term: 1–3 years, medium-term: 3–10 years, and long-term: 10–25 years). Main mitigation strategies were described as well. From 2022 onwards, this analysis will be further developed to include a scenario analysis and quantitative assessments.

In 2021, 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. 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.

Clariant's corporate carbon intensity is relatively low. Considering that the initiatives listed in the tables are already in place, Clariant's strategy is well set up to overcome the climate challenges ahead.

CLIMATE-RELATED RISKS

WELL BELOW 2°C SCENARIO

Category	Major risk	Time horizons	Main initiatives
Policy and legal	Emergence of minimum requirements or performance standards tied to energy consumption or GHG emissions control, carbon taxes, and carbon pricing mechanisms, leading to increased energy and raw material costs	Short to long term	<p>→ SCIENCE-BASED TARGETS 40% absolute emission reduction in own operations by means of efficiency and use of renewable and low-carbon energy sources; and 14% from purchased goods and services</p> <p>Energy efficiency projects (e.g., → EWATCH and → YEE and other → DIGITALIZATION EFFORTS LINKED TO IMPROVED OPERATIONS)</p> <p>GHG impact assessment and internal carbon pricing for M&As and CAPEX investments above CHF 1 million ensure identification of best ROIC for carbon reduction</p> <p>Consistent monitoring of policy developments, enabling quick action to address or reduce exposure</p>
Technology	Cost to transition to low-carbon emitting technologies regarding production and innovation, delay in getting new low-carbon products to market, market shift to competitor's low-carbon technology products	Medium to long term	<p>GHG impact assessment and internal carbon pricing, as described in category: Policy and legal</p> <p>→ PORTFOLIO VALUE PROGRAM (PVP) (R&D) screenings for products in development ensure early identification of substitution threat or particularly high climate pressure. → IDEA TO MARKET process ensures customer voice in product design, lowering likelihood of developing low-carbon products missing market needs</p> <p>Strategic roadmap for emission reductions in Scopes 1 and 2, increased sustainable low-carbon feedstocks uptake supporting our Scope 3 target achievement, and innovative product offering supporting a low-carbon economy (e.g., → CATALYSIS, SUNLIQUID, etc.)</p> <p>Procurement scouting of renewable and low-carbon technologies for potentially new solutions in APAC</p>
Market	Substitution of existing products and services with lower emissions options; changing customer behavior; uncertainty in market signals	Medium to long term	<p>Science-based targets, GHG impact assessment, and internal carbon pricing, as described in category: Policy and legal</p> <p>PVP (R&D) screenings, Idea to Market process, and strategic roadmap for emission reductions in Scopes 1 and 2, as described in category: Technology</p> <p>Use of GHG-related policy and market pressures as key criteria for prioritizing segment product portfolio strategy to ensure competitiveness in low-carbon technologies</p> <p>Automated product carbon footprint calculation tool for Clariant's portfolio</p>
Reputation	Stigmatization of sector, increased stakeholder concern or negative stakeholder feedback	Medium to long term	<p>Science-based targets, as described in category: Policy and legal</p> <p>Climate net zero operations by 2050 at the latest under consideration</p> <p>Strategic roadmap for emission reductions in Scopes 1 and 2, as described in category: Technology</p> <p>Use of GHG-related policy and market pressures as key criteria for prioritizing segment product portfolio strategy to ensure competitiveness in low-carbon technologies, specifically supporting the transition of markets under pressure via innovation (e.g., → BLUE HYDROGEN PROJECT, → ADSORBENTS TO BIOFUELS, → EV-BASED PROJECTS, E.G., FLAME RETARDANTS, etc.)</p>



Risk management

Clariant evaluates and monitors the company's risks, including climate-related ones, in accordance with the Enterprise Risk Management (ERM) process. Clariant continuously analyzes the potential impact on financial performance, the potentially affected products, and suitable strategic steps to seize opportunities and minimize risks. Measures are reported annually to the Board of Directors based on threat and opportunities to the business.

To further improve Clariant's climate-related risk and opportunity assessment, multiple scenarios for physical and transition risks will be used in the coming years. This approach will be integrated into the ERM process, enabling an improvement of our disclosure.

Metrics and targets

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.

Since the 2021 financial year, Clariant's emissions reductions have been part of short-term incentive remuneration for members of the Executive Committee and Global Management.

To integrate emissions in Clariant's investment decisions, the company has developed a carbon pricing scheme that applies a monetary value on greenhouse gas emissions for all major capital expenditures and mergers and acquisitions.

In 2021, Clariant has also developed internal dashboards, the so-called »Sustainable Operations Cockpit« (SOC), allowing for a monthly update and monitoring of the emissions associated with own operations, as well as the Scope 3 dashboard for purchased goods.

CIRCULAR ECONOMY

In a circular economy, reduced materials used for renewable, durable, and repairable 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.

The circular economy is driven by sustainability ambitions and policy objectives linked to climate change, environmental protection, and the sustainable use of finite resources. Policy examples around the globe include the European Union Circular Economy Action Plan and Plastics Strategy and the waste ban in China.

Management approach

Group Innovation & Sustainability (GIS) leads all circular economy efforts at Clariant 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 and Emerging Technologies, evaluate the opportunities offered by an increasingly circular economy.

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.

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

In its 2021 Strategic Management Process, Clariant defined Circular Solutions as one of its four Innovation Arenas. 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.

Clariant is particularly committed to preventing the spread 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.



Internal projects and initiatives

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. In 2021, Clariant has intensified its competencies to develop specialty products for a circular plastics economy at dedicated sites.

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’s Business Unit Industrial & Consumer Specialties develops particular circular economy products, such as de-icing fluids for airplanes. The business unit conducts an on-site recycling program that enables up to 70% of the fluids’ glycol to be reused in the manufacture of new de-icing agents directly at the airport.

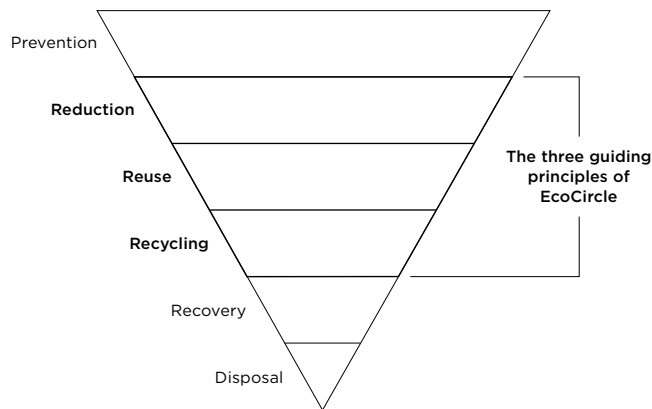
Projects and initiatives with external partners

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 toward Recycling of Plastics, is a joint project of science and industry with 36 partners from the value chain. Clariant is active in the field of chemical recycling. Clariant is also involved in the EU project → REVOLUTION involving electric vehicles. The aim is to maximize the range of electric vehicles and to recycle end-of-life vehicles by optimizing recycled plastics and advanced lightweight materials. The objective is to swiftly implement and establish innovative circular solutions in line with the waste hierarchy principles.

→ FIGURE 005

For example, Clariant is a founding member of Process4Sustainability at Industriepark Hoechst, Germany. This cluster fosters circularity to achieve carbon neutrality.

005 WASTE HIERARCHY PRINCIPLES



Business Unit Additives collaborates with the English biomaterials company Floreon, which develops and markets engineered polylactic acid (PLA) compounds from approximately 80% renewable, plant-based raw materials. These polymers are mechanically tougher than traditional PLA, deliver significant energy savings in processing, and are industrially compostable. Clariant’s additives improve these biopolymers’ performance and processing characteristics, offering brand owners the possibility to reduce their use of fossil-based virgin polymers.

In addition, Clariant is a founding member of the Alliance to End Plastic Waste (AEPW), together with 29 other multinationals 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.

In 2021, Clariant also took part in the → CIRCULAR ECONOMY INITIATIVE DEUTSCHLAND (CEID) and recommended actions to the German government. In the Low-Carbon Emitting Technology Initiative of the World Economic Forum, Clariant particularly supported the work streams 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 also a member of the Circular Economy Working Group of the European Chemical Industry Council (CEFIC), the Factor10 and Circular Plastics & Packaging projects of the World Business Council for Sustainable Development (WBCSD), and the Polyolefin Circular Economy Platform (PCEP).



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 as a way 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. Low carbon materials, such as biomass or other biomaterials, play a decisive role as alternatives.

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.

MATERIALS USED BY WEIGHT OR VOLUME

in m t	Continuing operations	Discontinued operations	Total 2021 ²	2020 ¹	2019	2018	2017
Total weight or volume of materials that are used to produce the organization's primary products and services during the reporting period	4.70	0.20	4.90	4.10	4.50	4.60	4.86
Total production	4.33	0.10	4.43	4.10	4.25	4.34	4.60

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.

Management approach

Within Clariant, Group Biotechnology will become part of Business Line 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 Research & Development centers find bio-based solutions and develop products.

Clariant is going to enhance its corporate management approach to the bio-based economy in 2022. 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.

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 is facilitated largely by increased transparency in the value chain, which Clariant encourages actors along the value chain to pursue. Through the RSPO Mass Balance allocation system, Clariant currently draws more sustainable palm products on the market. 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.

Research for sustainable materials

Clariant has established Research & Development centers and biotechnology facilities to test a variety of different feedstocks and to turn them into high performing, sustainable solutions. Within Clariant, Group Biotechnology will become part of Business Line Biofuels & Derivatives. 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 2021, the Business Area Natural Resources continued its search for sustainable raw materials with an improved carbon footprint or toxicity profile. The Exolit® OP 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.

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.

Business Unit Industrial & Consumer Specialties obtained an RSPO Mass Balance certificate, and relevant production sites are certified globally, i.e., products can be sold as being RSPO certified. The business unit's site in Gendorf (Germany) also received an ISCC Plus certification. ISCC is a globally applicable sustainability certification system that covers all sustainable raw materials. This includes agricultural and forest biomass, circular and bio-based materials, and renewable energy. The plants of the Business Unit Additives in Knapsack and Frankfurt (both in Germany) received the REDcert certification for the mass-balance approach used in the production of product ranges containing biomass. In Germany and Europe, REDcert² is one of the leading certification schemes for validating the chain of custody and traceability of sustainable biomass, biofuels, and bioliquids in production processes. In addition, the Business Unit Additives also received an ISCC Plus certification.

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.

In 2021, Clariant executed two M&A transactions linked to the bio-economy: In July, the company announced its joint venture with India Glycols to become one of the leaders in green ethylene oxide derivatives. In August, it acquired the Brazilian personal care specialty company Beraca, which offers a broad portfolio of natural and organic certified ingredients. These transactions will further enhance Clariant's presence in the bio-economy market and contribute to sustainability-driven innovation.

Portfolio and procurement

Sustainability-driven innovation will support Clariant's average annual growth by approximately 1%, with a focus on bio-based products, on decarbonization, and on circularity. At the end of 2021, 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 36 criteria, including bio-economy, to ensure that it aligns with sustainability principles.

Across all business areas, Clariant procured more than 8 000 different raw materials. In 2021, only 17.1% of purchased raw materials stemmed directly or indirectly from crude oil. About 32.8% were derived from natural raw materials such as bentonite, and 4.5% 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 2021, purchases of these products amounted to CHF 178 million, representing 7.15% of direct spend.



ESG Ratings and Rankings

Clariant fosters a culture of proactive and transparent communication to address the concerns and expectations of all relevant interest groups. This is key to forming reliable relationships based on trust. All interest groups are regularly informed of the company’s activities, targets, and sustainability performance, which shows in its sustainability ratings and rankings as well.

CARBON DISCLOSURE PROJECT



Since 2007, Clariant has actively participated in the Carbon Disclosure Project (CDP) Climate Change and Water Security reporting programs. The CDP publishes the greenhouse gas emissions (GHG) of the world’s largest corporations.

Since 2015, Clariant has consistently achieved a score of B- or higher in the categories Climate Change and Water Security. Also, in 2021, Clariant started reporting to the Forests questionnaire.

DOW JONES SUSTAINABILITY INDICES



Clariant is a member of the Dow Jones Sustainability Indices (DJSI) World and Europe and is recognized as one of the most sustainable companies in its sector.

The listing in the two indices 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 2022.

ECOVADIS



Clariant’s sustainability performance is evaluated regularly by EcoVadis. This widely recognized third-party on-line 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 1% EcoVadis performers in its sector and across industries. For 2021, Clariant was rated with the EcoVadis Platinum Award.

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 2021, Clariant was awarded the second-best category, AA.

SUSTAINALYTICS



In 2021, Clariant’s sustainability activities were evaluated by the renowned 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 risks. For 2021, Clariant was rated with a low ESG risk (20.9).



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 performances.

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 leading provider of corporate governance market intelligence and issues regular corporate ESG ratings on the basis of up to 100 rating criteria. In 2021, 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 15 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. In the Reporting Suite 2021, Clariant addresses two additional frameworks: For the first time, 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 corporate reporting suite, 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. This report has been prepared in accordance with the GRI Standards: Core Option.

Disclosures	References to chapters and sections of Clariant's Integrated Reporting 2021	Comments or references to further publicly available information	External Assurance
GRI 101 Foundation 2016			
GRI 102 General Disclosures 2016			
GRI 102-1	Name of the organization	Clariant AG	
GRI 102-2	Activities, brands, products, and services	→ AT A GLANCE	
GRI 102-3	Location of headquarters	Rothausstrasse 61, 4132 Muttenz, Switzerland	
GRI 102-4	Location of operations	→ 24. SEGMENT INFORMATION → 37. IMPORTANT SUBSIDIARIES	
GRI 102-5	Ownership and legal form	Stock company listed at SIX Swiss Exchange	
GRI 102-6	Markets served	→ VALUE CREATION IN THE FINANCIAL YEAR	
GRI 102-7	Scale of the organization	→ PERFORMANCE OVERVIEW → PEOPLE OVERVIEW	
GRI 102-8	Information on employees and other workers	→ PEOPLE OVERVIEW	Clariant does not have knowledge of any substantial portion of its work being performed by workers who are not employees. Furthermore, there are no significant seasonal variations in Clariant's employment numbers.
GRI 102-9	Supply chain	→ SUPPLY CHAIN RESILIENCY	→ PWC CH
GRI 102-10	Significant changes to the organization and its supply chain	→ 17. CHANGES IN SHARE CAPITAL AND TREASURY SHARES AND CHANGES IN NONCONTROLLING INTERESTS → 25. DISCONTINUED OPERATIONS AND ASSETS HELD FOR SALE → 26. DISPOSALS → 37. IMPORTANT SUBSIDIARIES → 38. EVENTS SUBSEQUENT TO THE BALANCE SHEET DATE	



Disclosures	References to chapters and sections of Clariant's Integrated Reporting 2021	Comments or references to further publicly available information	External Assurance
GRI 102-11 Precautionary Principle or approach		Clariant adopted the precautionary principle defined in 1992 at the United Nations Conference on Environment and Development in Rio de Janeiro. According to the precautionary principle, remedial actions may only be postponed if no serious or lasting damages to the environment are looming. More detail can be found on the following website: www.precautionaryprinciple.eu/ . Clariant has expanded the environmental considerations of the precautionary principle with social aspects.	
GRI 102-12 External initiatives	→ UNITED NATIONS GLOBAL COMPACT INDEX → HUMAN AND LABOR RIGHTS POLICIES → OTHER GOALS AND TARGETS		
GRI 102-13 Membership of associations		Clariant is a member of numerous interest groups and trade associations at international (International Council of Chemical Associations [ICCA]), regional (Cefic), and national levels (business federations or national chemical industry associations, such as ABIQUIM in Brazil, CPCIF in China, Verband der Chemischen Industrie [VCI] in Germany, and the American Chemistry Council [ACC] in the USA). Clariant is also active in sectoral associations at both a regional and national level, as in the bio-economy sector (Advanced Biofuels Coalition, ePure, EuropaBio, Bio-Based Industries Consortium) Clariant is proud to be a member and supporter of scientific and research organizations such as SUSCHEM, the European Technology Platform for Sustainable Chemistry, confirming its strong commitment to develop the next generation of sustainable chemistry solutions. In 2021, Clariant's top three contributions to policy memberships are: German Association of the Chemical Industry (Verband der Chemischen Industrie e.V. [VCI]) Chamber of Commerce Basel (Handelskammer beider Basel) Scienceindustries, the Swiss business association for the chemical, pharmaceutical, and biotech industries.	
GRI 102-14 Statement from senior decision-maker	→ INTERVIEW WITH THE CEO		
GRI 102-15 Key impacts, risks, and opportunities	→ RISK AND CRISIS MANAGEMENT → 2. ENTERPRISE RISK MANAGEMENT IDENTIFICATION, ASSESSMENT AND MANAGEMENT		
GRI 102-16 Values, principles, standards, and norms of behavior	→ CODE OF ETHICS → OTHER GOALS AND TARGETS		
GRI 102-17 Mechanisms for advice and concerns about ethics	→ CLARIANT INTEGRITY LINE	With regard to seeking advice, compliance officers at both regional and local levels as well as at Group headquarters are available to provide support on issues concerning ethically correct and legally compliant conduct of employees or business processes.	→ PWC CH



Disclosures	References to chapters and sections of Clariant's Integrated Reporting 2021	Comments or references to further publicly available information	External Assurance
GRI 102-18 Governance structure	→ PRINCIPLES OF CORPORATE GOVERNANCE		
GRI 102-20 Executive-level responsibility for economic, environmental, and social topics	→ INFORMATION AND CONTROL INSTRUMENTS VIS-À-VIS THE EXECUTIVE COMMITTEE	Clariant's Executive Committee provides the guidelines and the corresponding control for sustainable management. Sustainability and Innovation are represented in all discussions in the Executive Committee by the Chief Technology & sustainability Officer, who is a permanent guest of the Executive Committee meetings.	
GRI 102-21 Consulting stakeholders on economic, environmental, and social topics	→ MATERIALITY ASSESSMENT	Through the »Clariant Sustainability Dialog.« Clariant further engages with important stakeholders from customer industries, politics, NGOs, and the media in order to foster an open dialog and future cooperation. Additionally, Clariant maintains a constant dialog with NGOs, and sales representatives regularly meet with customers to discuss sustainability topics.	
GRI 102-39 Percentage increase in annual total compensation ratio	→ COMPENSATION REPORT	Clariant's compensation philosophy aims at attracting, motivating, and retaining employees. Clariant is committed to paying its employees fair and appropriate compensation via wages and salaries, social components, and other benefits. This compensation needs to meet minimum statutory standards and, in principle, exceeds them in each country in which Clariant operates. The spread of salaries among Clariant employees may vary from country to country depending on factors like, e.g., employee structure, local labor markets, and compensation landscapes and levels. On a global level, the ratio between the median annual base salary and the highest base salary is 1:12. In terms of the total compensation, including variable salary components, the spread is 1:20. Part-time employees have been excluded from this calculation. Salary adjustments are negotiated in accordance with a fixed and unambiguous system and implemented through mutual agreement between the line manager and the Human Resources department. As a basic principle, a consistent »salary philosophy« ensures that adjustments are made in the context of the local markets and the individual performance.	
GRI 102-40 List of stakeholder groups	→ A PURPOSE-LED STRATEGY		
GRI 102-41 Collective bargaining agreements	→ PEOPLE OVERVIEW	Clariant pays wages and salaries that are determined by relevant local competitive markets rather than by legally defined minimum wages. As of the end of December 2021, 47 % of employees were covered by collective bargaining agreements with employee representatives. Managerial positions are generally not included in such agreements.	
GRI 102-42 Identifying and selecting stakeholders	→ A PURPOSE-LED STRATEGY		
GRI 102-43 Approach to stakeholder engagement	→ A PURPOSE-LED STRATEGY		
GRI 102-44 Key topics and concerns raised	→ A PURPOSE-LED STRATEGY		
GRI 102-45 Entities included in the consolidated financial statements	→ 37. IMPORTANT SUBSIDIARIES		
GRI 102-46 Defining report content and topic boundaries	→ MATERIALITY ASSESSMENT	In order to define report content and topic boundaries, Clariant applied all four Reporting Principles, namely Stakeholder Inclusiveness, Sustainability Context, Materiality, and Completeness. Clariant reports on topics that are considered to be of high and very high relevance in the Integrated Report and the GRI Report. The boundaries are outlined in the respective topic's management approach in the Review on Performance, People, and Planet.	
GRI 102-47 List of material topics	→ CLARIANT MATERIALITY MATRIX		
GRI 102-48 Restatements of information		Any restatement of previously reported data is explained in a footnote under the respective disclosure.	



Disclosures	References to chapters and sections of Clariant's Integrated Reporting 2021	Comments or references to further publicly available information	External Assurance
GRI 102-49	Changes in reporting	→ MATERIALITY ASSESSMENT	
GRI 102-50	Reporting period	2021	
GRI 102-51	Date of most recent report	The last GRI Report was published in March 2021 on Clariant's website.	
GRI 102-52	Reporting cycle	Annual	
GRI 102-53	Contact point for questions regarding the report	→ PUBLICATION DETAILS Sustainability Affairs – Group Innovation & Sustainability Alessandro Canalis, Tel. +41 61469 65 10 sustainability@clariant.com	
GRI 102-54	Claims of reporting in accordance with the GRI Standards	This report has been prepared in accordance with the GRI Standards: Core option.	
GRI 102-55	GRI content index	→ GRI CONTENT INDEX	
GRI 102-56	External assurance	→ INDEPENDENT ASSURANCE REPORT	
GRI 201 Economic Performance 2016			
GRI 103	Management approach (including GRI 103-1, 103-2, 103-3)	→ CORPORATE GOVERNANCE REPORT → FINANCIAL REPORT	
GRI 201-1	Direct economic value generated and distributed	→ FINANCIAL REPORT	
GRI 201-2	Financial implications and other risks and opportunities due to climate change	→ TCFD INDEX	→ CDP DISCLOSURES
GRI 201-3	Defined benefit plan obligations and other retirement plans	→ 20. RETIREMENT BENEFIT OBLIGATIONS	
<p>Pension and other employee benefit plans are monitored globally by Clariant for relevance, compliance, costs, and suitability as a valuable employee benefit. Clariant is aware of the significance of pension and other benefit plans as a lever for retaining staff. These plans are regularly evaluated against benefits in the respective countries in order to be in line with current practices. Before every adjustment, Clariant carefully examines the impact the changes have on the employees and, if necessary, directly consults with them.</p> <p>Clariant offers retirement or pension plans as a benefit to protect employees after completing their active working life and to enable them to retire. Clariant aims to offer benefits that are competitive in the local markets; existence and type of retirement or pension plans differ widely from country to country based on local legislation, social security systems, and market practices.</p>			
GRI 202 Market Presence 2016			
GRI 103	Management approach (including GRI 103-1, 103-2, 103-3)	→ MANAGEMENT APPROACH	
GRI 202-1	Ratios of standard entry-level wage by gender compared to local minimum wage	→ RATIOS OF STANDARD ENTRY-LEVEL WAGES BY GENDER COMPARED TO LOCAL MINIMUM WAGE	
GRI 202-2	Proportion of senior management hired from the local community	→ PROPORTION OF SENIOR MANAGEMENT HIRED FROM THE LOCAL COMMUNITY	→ PWC CH
GRI 204 Procurement Practices 2016			
GRI 103	Management approach (including GRI 103-1, 103-2, 103-3)	→ MANAGEMENT APPROACH	
GRI 204-1	Proportion of spending on local suppliers	→ PROPORTION OF SPENDING ON LOCAL SUPPLIERS	→ PWC CH



Disclosures	References to chapters and sections of Clariant's Integrated Reporting 2021	Comments or references to further publicly available information	External Assurance
GRI 205 Anti-corruption 2016			
GRI 103 Management approach (including GRI 103-1, 103-2, 103-3)	→ MANAGEMENT APPROACH		
GRI 205-1 Operations assessed for risks related to corruption	→ ANTI-BRIBERY, ANTI-CORRUPTION, ANTITRUST		
GRI 205-2 Communication and training about anti-corruption policies and procedures	→ TRAINING AND COMMUNICATION		→ PWC CH
GRI 205-3 Confirmed incidents of corruption and actions taken	→ NONCOMPLIANCE		
GRI 206 Anti-competitive Behavior 2016			
GRI 103 Management approach (including GRI 103-1, 103-2, 103-3)	→ MANAGEMENT APPROACH		
GRI 206-1 Legal actions for anti-competitive behavior, antitrust, and monopoly practices	→ ANTI-COMPETITIVE BEHAVIOR		
GRI 207 Tax 2019			
GRI 103 Management approach (including GRI 103-1, 103-2, 103-3)	→ 10. TAXES		
GRI 207-1 Approach to tax	→ 10. TAXES		
GRI 207-2 Tax governance, control, and risk management	→ 10. TAXES		
GRI 207-3 Stakeholder engagement and management of concerns related to tax	→ 10. TAXES		
GRI 301 Materials 2016			
GRI 103 Management approach (including GRI 103-1, 103-2, 103-3)	→ MANAGEMENT APPROACH		
GRI 301-1 Materials used by weight or volume	→ MATERIALS USED BY WEIGHT OR VOLUME		→ PWC CH
GRI 301-2 Recycled input materials used	→ RECYCLED INPUT MATERIALS USED		
GRI 301-3 Reclaimed products and their packaging materials	→ RECLAIMED PRODUCTS AND PACKAGING MATERIALS		



Disclosures	References to chapters and sections of Clariant's Integrated Reporting 2021	Comments or references to further publicly available information	External Assurance
GRI 302 Energy 2016			
GRI 103 Management approach (including GRI 103-1, 103-2, 103-3)	→ MANAGEMENT APPROACH		
GRI 302-1 Energy consumption within the organization	→ ENERGY CONSUMPTION		→ PWC CH
GRI 302-2 Energy consumption outside of the organization	→ ENERGY CONSUMPTION → SCOPE 3 EMISSIONS	Energy consumption outside of the organization is accounted for through the CO ₂ footprint of the raw materials Clariant purchases. Data are gathered as part of Scope 3 emissions.	→ PWC CH
GRI 302-3 Energy intensity	→ ENERGY CONSUMPTION		→ PWC CH
GRI 302-4 Reduction of energy consumption	→ NEW SUSTAINABILITY TARGETS		
GRI 302-5 Reductions in energy requirements of products and services	→ REDUCTIONS IN ENERGY REQUIREMENTS OF PRODUCTS AND SERVICES		
GRI 303 Water & Effluents 2018			
GRI 103 Management approach (including GRI 103-1, 103-2, 103-3)	→ MANAGEMENT APPROACH		
GRI 303-1 Interactions with water as a shared resource	→ WATER		
GRI 303-2 Management of water discharge-related impacts	→ WASTEWATER MANAGEMENT		
GRI 303-3 Water withdrawal	→ WATER WITHDRAWAL AND INTAKE		→ PWC CH
GRI 303-4 Water discharge	→ WASTEWATER MANAGEMENT	Zero incidents of noncompliance that resulted in a formal enforcement action.	→ PWC CH
GRI 303-5 Water Consumption	→ WATER WITHDRAWAL AND INTAKE		→ PWC CH
GRI 304 Biodiversity 2016			
GRI 103 Management approach (including GRI 103-1, 103-2, 103-3)	→ MANAGEMENT APPROACH		
GRI 304-1 Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas	→ OPERATIONAL SITES IN PROTECTED AREAS		
GRI 304-2 Significant impacts of activities, products, and services on biodiversity	→ SIGNIFICANT IMPACTS OF ACTIVITIES, PRODUCTS, AND SERVICES ON BIODIVERSITY		
GRI 304-3 Habitats protected or restored	→ PROTECTION OF ECOSYSTEMS		
GRI 305 Emissions 2016			
GRI 103 Management approach (including GRI 103-1, 103-2, 103-3)	→ MANAGEMENT APPROACH		
GRI 305-1 Direct (Scope 1) GHG emissions	→ SCOPE 1 AND 2 EMISSIONS		→ PWC CH
GRI 305-2 Energy indirect (Scope 2) GHG emissions	→ SCOPE 1 AND 2 EMISSIONS		→ PWC CH
GRI 305-3 Other indirect (Scope 3) GHG emissions	→ SCOPE 3 EMISSIONS		→ PWC CH
GRI 305-4 GHG emissions intensity	→ SCOPE 1 AND 2 EMISSIONS → SCOPE 3 EMISSIONS		→ PWC CH
GRI 305-5 Reduction of GHG emissions	→ REDUCTION OF SCOPE 1, 2, 3 EMISSIONS		→ PWC CH
GRI 305-6 Emissions of ozone-depleting substances (ODS)	→ EMISSIONS OF OZONE-DEPLETING SUBSTANCES (ODS), NITROGEN OXIDES (NO _x), SULFUR OXIDES (SO _x), AND SIGNIFICANT OTHERS		→ PWC CH
GRI 305-7 Nitrogen oxides (NO _x), sulfur oxides (SO _x), and other significant air emissions	→ EMISSIONS OF OZONE-DEPLETING SUBSTANCES (ODS), NITROGEN OXIDES (NO _x), SULFUR OXIDES (SO _x), AND SIGNIFICANT OTHERS		→ PWC CH



Disclosures	References to chapters and sections of Clariant's Integrated Reporting 2021	Comments or references to further publicly available information	External Assurance
GRI 306 Waste 2020			
GRI 103 Management approach (including GRI 103-1, 103-2, 103-3)	→ MANAGEMENT APPROACH		
GRI 306-1 Waste generation and significant waste-related impacts	→ WASTE MANAGEMENT → SAFETY MANAGEMENT SYSTEM		→ PWC CH
GRI 306-2 Management of significant waste-related impacts	→ SIGNIFICANT IMPACTS OF ACTIVITIES, PRODUCTS, AND SERVICES ON BIODIVERSITY → SAFETY MANAGEMENT SYSTEM		→ PWC CH
GRI 306-3 Waste generated	→ WASTE MANAGEMENT		→ PWC CH
GRI 306-4 Waste diverted from disposal	→ WASTE MANAGEMENT		→ PWC CH
GRI 306-5 Waste directed to disposal	→ WASTE MANAGEMENT		→ PWC CH
GRI 307 Environmental Compliance 2016			
GRI 103 Management approach (including GRI 103-1, 103-2, 103-3)	→ MANAGEMENT APPROACH		
GRI 307-1 Noncompliance with environmental laws and regulations	→ NONCOMPLIANCE WITH ENVIRONMENTAL LAWS AND REGULATIONS		
GRI 308 Supplier Environmental Assessment 2016			
GRI 103 Management approach (including GRI 103-1, 103-2, 103-3)	→ MANAGEMENT APPROACH		
GRI 308-1 New suppliers that were screened using environmental criteria	→ NEW SUPPLIERS THAT WERE SCREENED USING ENVIRONMENTAL AND SOCIAL CRITERIA		→ PWC CH
GRI 308-2 Negative environmental impacts in the supply chain and actions taken	→ NEGATIVE ENVIRONMENTAL AND SOCIAL IMPACT IN THE SUPPLY CHAIN AND ACTIONS TAKEN		→ PWC CH
GRI 401 Employment 2016			
GRI 103 Management approach (including GRI 103-1, 103-2, 103-3)	→ MANAGEMENT APPROACH		
GRI 401-1 New employee hires and employee turnover	→ TALENT ATTRACTION		→ PWC CH
GRI 401-2 Benefits provided to full-time employees that are not provided to temporary or part-time employees	→ BENEFITS PROVIDED TO FULL-TIME EMPLOYEES THAT ARE NOT PROVIDED TO TEMPORARY OR PART-TIME EMPLOYEES		
GRI 401-3 Parental leave	→ PARENTAL LEAVE		→ PWC CH
GRI 402 Labor/Management Relations 2016			
GRI 103 Management approach (including GRI 103-1, 103-2, 103-3)	→ MANAGEMENT APPROACH		
GRI 402-1 Minimum notice periods regarding operational changes	→ MINIMUM NOTICE PERIODS REGARDING OPERATIONAL CHANGES		



Disclosures	References to chapters and sections of Clariant's Integrated Reporting 2021	Comments or references to further publicly available information	External Assurance
GRI 403 Occupational Health and Safety 2018			
GRI 103 Management approach (including GRI 103-1, 103-2, 103-3)	→ MANAGEMENT APPROACH		
GRI 403-1 Occupational Health and Safety management system	→ MANAGEMENT APPROACH		
GRI 403-2 Hazard identification, risk assessment, and incident investigation	→ HAZARD IDENTIFICATION, RISK ASSESSMENT, AND INCIDENT INVESTIGATION		
GRI 403-3 Occupational health services	→ SUPPORT FOR DRUG ADDICTION AND PROGRAMS TO QUIT SMOKING		
GRI 403-4 Worker participation, consultation, and communication on Occupational Health and Safety	→ WORKER PARTICIPATION, CONSULTATION, AND COMMUNICATION ON OCCUPATIONAL HEALTH AND SAFETY		
GRI 403-5 Worker training on Occupational Health and Safety	→ OCCUPATIONAL HEALTH AND SAFETY PROGRAMS AND TRAINING		
GRI 403-6 Promotion of worker health	→ AWARDS AND BENEFITS PROGRAMS		
GRI 403-7 Prevention and mitigation of Occupational Health and Safety impacts directly linked to business relationships	→ MANAGEMENT APPROACH		
GRI 403-8 Workers covered by an Occupational Health and Safety management system	→ EMPLOYEES COVERED BY AN OCCUPATIONAL HEALTH AND SAFETY MANAGEMENT SYSTEM		→ PWC CH
GRI 403-9 Work-related injuries	→ WORK-RELATED INJURIES		→ PWC CH
GRI 403-10 Work-related ill health	→ OCCUPATIONAL ACCIDENTS		→ PWC CH
GRI 404 Training and Education 2016			
GRI 103 Management approach (including GRI 103-1, 103-2, 103-3)	→ MANAGEMENT APPROACH		
GRI 404-1 Average hours of training per year per employee	→ PROGRAMS FOR UPGRADING EMPLOYEE SKILLS AND TRANSITION ASSISTANCE PROGRAM		→ PWC CH
GRI 404-2 Programs for upgrading employee skills and transition assistance programs	→ PROGRAMS FOR UPGRADING EMPLOYEE SKILLS AND TRANSITION ASSISTANCE PROGRAM		
GRI 404-3 Percentage of employees receiving regular performance and career development reviews	→ PERFORMANCE, TALENT, AND LEADERSHIP PROGRAMS		→ PWC CH
GRI 405 Diversity and Equal Opportunity 2016			
GRI 103 Management approach (including GRI 103-1, 103-2, 103-3)	→ MANAGEMENT APPROACH		
GRI 405-1 Diversity of governance bodies and employees	→ EMPLOYEE INDICATORS		→ PWC CH
GRI 405-2 Ratio of basic salary and remuneration of women to men	→ RATIO OF BASIC SALARY AND REMUNERATION OF WOMEN AND MEN		
GRI 406 Nondiscrimination 2016			
GRI 103 Management approach (including GRI 103-1, 103-2, 103-3)	→ MANAGEMENT APPROACH		
GRI 406-1 Incidents of discrimination and corrective actions taken	→ NUMBER OF INCIDENTS OF DISCRIMINATION		→ PWC CH
GRI 407 Freedom of Association and Collective Bargaining 2016			
GRI 103 Management approach (including GRI 103-1, 103-2, 103-3)	→ MANAGEMENT APPROACH		
GRI 407-1 Operations and suppliers in which the right to freedom of association and collective bargaining may be at risk	→ CONTRACT LABOR		
GRI 408 Child Labor 2016			
GRI 103 Management approach (including GRI 103-1, 103-2, 103-3)	→ MANAGEMENT APPROACH		
GRI 408-1 Operations and suppliers at significant risk for incidents of child labor	→ CHILD, FORCED, OR COMPULSORY LABOR → NEW SUPPLIERS THAT WERE SCREENED USING ENVIRONMENTAL AND SOCIAL CRITERIA		



Disclosures	References to chapters and sections of Clariant's Integrated Reporting 2021	Comments or references to further publicly available information	External Assurance
GRI 409 Forced or Compulsory Labor 2016			
GRI 103 Management approach (including GRI 103-1, 103-2, 103-3)	→ MANAGEMENT APPROACH		
GRI 409-1 Operations and suppliers at significant risk for incidents of forced or compulsory labor	→ CHILD, FORCED, OR COMPULSORY LABOR → NEW SUPPLIERS THAT WERE SCREENED USING ENVIRONMENTAL AND SOCIAL CRITERIA		
GRI 412 Human Rights Assessment 2016			
GRI 103 Management approach (including GRI 103-1, 103-2, 103-3)	→ MANAGEMENT APPROACH	→ OUR PEOPLE AND CULTURE	
GRI 412-1 Operations that have been subject to human rights reviews or impact assessments	→ HUMAN AND LABOR RIGHTS ASSESSMENT		
GRI 412-2 Employee training on human rights policies or procedures	→ EMPLOYEE TRAINING AND INVOLVEMENT		
GRI 412-3 Significant investment agreements and contracts that include human rights clauses or that underwent human rights screening	→ HUMAN AND LABOR RIGHTS CLAUSES IN INVESTMENT AGREEMENTS AND CONTRACTS		
GRI 414 Supplier Social Assessment 2016			
GRI 103 Management approach (including GRI 103-1, 103-2, 103-3)	→ MANAGEMENT APPROACH		
GRI 414-1 New suppliers that were screened using social criteria	→ NEW SUPPLIERS THAT WERE SCREENED USING ENVIRONMENTAL AND SOCIAL CRITERIA		→ PWC CH
GRI 414-2 Negative social impacts in the supply chain and actions taken	→ NEGATIVE ENVIRONMENTAL AND SOCIAL IMPACTS IN THE SUPPLY CHAIN AND ACTIONS TAKEN		→ PWC CH
GRI 416 Customer Health and Safety 2016			
GRI 103 Management approach (including GRI 103-1, 103-2, 103-3)	→ MANAGEMENT APPROACH		
GRI 416-1 Assessment of the health and safety impacts of product and service categories	→ ASSESSMENT OF THE HEALTH AND SAFETY IMPACTS OF PRODUCT AND SERVICE CATEGORIES		
GRI 416-2 Incidents of noncompliance concerning the health and safety impacts of products and services	→ HEALTH AND SAFETY IMPACTS OF PRODUCTS AND SERVICES		
GRI 417 Marketing and Labeling 2016			
GRI 103 Management approach (including GRI 103-1, 103-2, 103-3)	→ MANAGEMENT APPROACH		
GRI 417-1 Requirements for product and service information and labeling	→ REQUIREMENTS FOR PRODUCT AND SERVICE INFORMATION AND LABELING		
GRI 417-2 Incidents of noncompliance concerning product and service information and labeling	→ REQUIREMENTS FOR PRODUCT AND SERVICE INFORMATION AND LABELING		
GRI 417-3 Incidents of noncompliance concerning marketing communications	→ MARKETING COMMUNICATIONS		
GRI 418 Customer Privacy 2016			
GRI 103 Management approach (including GRI 103-1, 103-2, 103-3)	→ MANAGEMENT APPROACH		
GRI 418-1 Substantiated complaints concerning breaches of customer privacy and losses of customer data	→ CUSTOMER PRIVACY		
GRI 419 Socioeconomic Compliance 2016			
GRI 103 Management approach (including GRI 103-1, 103-2, 103-3)	→ MANAGEMENT APPROACH		
GRI 419-1 Noncompliance with laws and regulations in the social and economic area	→ LAWS AND REGULATIONS IN THE SOCIAL AND ECONOMIC AREA		



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 first 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 2021	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 AND 2 EMISSIONS	3% 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 ₂ O), (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	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		Zero incidents of noncompliance that resulted in a formal enforcement action.
	Description of water management risks and discussion of strategies and practices to mitigate those risks	RT-CH-140a.3	→ WATER RISK 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 2021	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 → UPCOMING PRIORITIES → 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	→ POLLUTION PREVENTION	
	Number of transport incidents	RT-CH-540a.2		Not reported.
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 2021 Reporting Suite features TCFD-related disclosures for the

first 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 2021	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. We report on our 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 2021
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 → NEW 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 the Clariant's 2021 Non-Financial Reporting to the Board of Directors of Clariant AG, Muttenz

We have been engaged to perform assurance procedures to provide limited assurance on the non-financial performance reporting of Clariant AG and its consolidated subsidiaries ("Clariant") for the year ended 31 December 2021.

Scope and subject matter

Our limited assurance engagement focused on selected 2021 non-financial performance indicators published in the "Review on Performance, People and Planet" section of the Integrated Report 2021 of Clariant:

- Integrity line indicators on page 11
- Communication and training on anti-corruption policies and procedures indicators on page 12
- Production sites and facilities indicators on page 13
- Raw material procurement indicators on page 14
- Percentage of suppliers assessed via Ecovadis indicator on page 15
- Negative environmental and social impacts in the supply chain indicators on page 15
- Innovation and technological advances indicators on page 17
- Product stewardship indicators page 22
- Average hours of training per year per employee indicators on page 28
- Percentage of employees receiving regular performance and career development indicators on page 28
- New employee hires and employee turnover indicators on page 30
- Proportion of senior management hired from local communities indicator on page 32
- Parental leave indicators on page 32

- Diversity of governance bodies and employees indicators on page 33
- Number of employees by age group indicators on page 33
- Number of incidents of discrimination indicator on page 33
- Management functions indicators on page 34
- Breakdown of employees per nationality indicators on page 34
- FTEs by region indicators on page 35
- Work-related injuries indicators on page 37
- Occupational accidents indicators on page 38
- Employees covered by an occupational health and safety management system indicators on page 39
- Occupational accidents by region indicators on page 39
- Occupational accidents of contractors indicators on page 39
- Customer relationships indicators on page 40
- Energy consumption indicators on page 48
- Water withdrawal and intake indicators on page 48
- Water discharge indicators on page 49
- Waste by type and disposal method indicators on page 50
- Safety management indicators on page 50
- Emissions indicators on page 52
- Nitrogen Oxides (NOx), Sulfur Oxides (SOx) and other significant air emissions indicators on page 53
- Indirect (Scope 3) GHG emissions indicators on page 53
- Material used by weight or volume indicators on page 58

Criteria

The reporting criteria used by Clariant are described and summarized in the respective chapter in the "Review on Performance, People and Planet" section of the Integrated

Report 2021 of Clariant. The procedures applied by Clariant are based on the GRI Sustainability Reporting Standards (GRI Standards) by which the non-financial performance indicators are internally gathered, collated and aggregated.

Inherent limitations

The accuracy and completeness of non-financial performance indicators are subject to inherent limitations given their nature and methods for determining, calculating and estimating such data. Our assurance report should therefore be read in connection with the reporting criteria. Further, the greenhouse gas quantification is subject to inherent uncertainty because of incomplete scientific knowledge used to determine emissions factors and the values needed to combine emissions of different gases.

Clariant responsibility

The Board of Directors of Clariant AG is responsible for both the subject matter and the criteria as well as for selection, preparation and presentation of the information in accordance with the criteria. This responsibility includes the design, implementation and maintenance of related internal control relevant to this reporting process that is free from material misstatement, whether due to fraud or error.

Our independence and quality controls

We are independent of Clariant in accordance with the International Code of Ethics for Professional Accountants (including International Independence Standards) issued by the International Ethics Standards Board for Accountants (IESBA Code) that are relevant to our audit of the financial



statements and other assurance engagements in Switzerland. We have fulfilled our other ethical responsibilities in accordance with the IESBA Code.

Our firm applies International Standard on Quality Control 1 and accordingly maintains a comprehensive system of quality control including documented policies and procedures regarding compliance with ethical requirements, professional standards and applicable legal and regulatory requirements.

Our responsibility

Our responsibility is to express a limited assurance conclusion on the non-financial performance indicators. We conducted our limited assurance engagement in accordance with the International Standard on Assurance Engagements 3000 (revised), “Assurance Engagements other than Audits or Reviews of Historical Financial Information”, and, in respect of greenhouse gas emissions, with the International Standard on Assurance Engagements 3410, “Assurance Engagements on Greenhouse Gas Statements”, issued by the International Auditing and Assurance Standards Board. These standards require that we plan and perform this engagement to obtain limited assurance about whether the non-financial performance indicators were prepared, in all material aspects, in accordance with the reporting criteria.

A limited assurance engagement undertaken in accordance with ISAE 3000 (revised) and ISAE 3410 involves assessing the suitability in the circumstances of Clariant’s use of applicable criteria as the basis for the preparation of the non-financial performance indicators, assessing the risks of material misstatement of the non-financial performance indicators whether due to fraud or error, responding to the assessed risks as necessary in the circumstances, and evaluating the overall presentation of the non-financial performance indicators. A limited assurance engagement is substantially less in scope than a reasonable assurance engagement in relation to both the risk assessment procedures, including an understanding of internal control, and

the procedures performed in response to the assessed risks. The procedures selected depend on the assurance practitioner’s judgement.

Summary of the work performed

- Reviewing the application of Clariant’s internal guidelines
- Interviewing Clariant representatives at Group level responsible for the data collection and reporting
- Interviewing Clariant representatives in Indonesia, Mexico and South Africa responsible for the data collection and reporting
- Performing tests on a sample basis of evidence supporting the non-financial performance indicators as outlined in the scope and subject matter section concerning completeness, accuracy, adequacy and consistency
- Inspecting the relevant documentation on a sample basis
- Reviewing and assessing the management reporting processes for non-financial performance reporting and consolidation and their related controls

We have not carried out any work on data other than outlined in the scope and subject matter section as defined above. We believe that the evidence we have obtained is sufficient and appropriate to provide a basis for our assurance conclusions.

Conclusion

Based on the procedures we performed, nothing has come to our attention that causes us to believe that the 2021 non-financial performance indicators are not prepared and disclosed in all material respects in accordance with the reporting criteria.

Intended users and purpose of the report

Our report is prepared for, and only for, the Board of Directors of Clariant AG, and solely for the purpose of reporting to them on the 2021 non-financial performance indicators in the “Review on Performance, People and Planet” section of the

Integrated Report 2021 and no other purpose. We do not, in giving our conclusion, accept or assume responsibility (legal or otherwise) or accept liability for, or in connection with, any other purpose for which our report including the conclusion might be used, or to any other person to whom our report will be shown or into whose hands it might come, and no other persons shall be entitled to rely on our conclusion.

We permit the disclosure of our report, in full only and in combination with the published “Review on Performance, People and Planet” section of the Integrated Report 2021, to enable the Board of Directors to demonstrate that they have discharged their governance responsibilities by commissioning an independent assurance report over the 2021 non-financial performance indicators in the “Review on Performance, People and Planet” section of the Integrated Report 2021 without assuming or accepting any responsibility or liability to any third parties on our part.

To the fullest extent permitted by law, we will not accept or assume responsibility to anyone other than the Board of Directors of Clariant AG for our work or this report.

PricewaterhouseCoopers AG

Paul de Jong

Raphael Rutishauser

Basel, 1 June 2022

The maintenance and integrity of the Clariant AG website is the responsibility of the Board of Directors; the work carried out by the assurance providers does not involve consideration of the maintenance and integrity of the Clariant AG website and, accordingly, the assurance providers accept no responsibility for any changes that may have occurred to the reported non-financial performance indicators or criteria since they were initially presented on the website.



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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