kemira

Kemira Annual Review 2020
Annex: GRI-report

Contents

OUR MANAGEMENT APPROACH

GRI 103-2: The management approach and its components
GRI 103-3: Evaluation of the management approach

Our corporate sustainability work is guided by our commitments to the Code of Conduct, internationally defined sustainability principles, and stakeholder expectations, as seen in our strategy, corporate policies and integrated management system.

INTERNATIONAL SUSTAINABILITY PRINCIPLES

The United Nations Global Compact has been signed by Kemira Oyj as our commitment to respect and promote human rights, implement decent work practices, reduce our environmental impact, and combat corruption.

Responsible Care® is a voluntary commitment by the global chemical industry to drive continuous improvement and achieve excellence in environmental, health and safety and security performance. Through Responsible Care®, global chemical manufacturers commit to pursue an ethic of safe chemicals management and performance excellence worldwide. This helps to enhance public confidence and trust in the industry's dedication to safely manage chemicals throughout their lifecycle while ensuring that chemistry can continue to contribute to a healthier environment, improved living standards and a better quality of life for all. Kemira is committed to operate according to the principles of Responsible Care®.

STAKEHOLDER EXPECTATIONS

Our key stakeholders include our customers, shareholders, lenders, employees and suppliers. Other relevant stakeholder groups include the local communities where Kemira operates, regulatory bodies, trade associations, decisionmakers and opinion leaders.

- A significant share of our investors practices Socially Responsible Investing (SRI). These SRI signatories represent 32% of the ownership of Kemira shares.
- Many of our customers are sustainability leaders in their respective industrial sectors. Kemira plays a role in their value chains, and we are expected to demonstrate the same strong commitment to sustainable business as our customers.
- Our employees see sustainable business conduct as an important factor behind their engagement with Kemira, according to our employee surveys.

Our approach to stakeholder engagement includes activities ranging from information sharing to active dialogue and collaboration on issues of mutual interest. We regularly review our stakeholders' expectations and potential concerns.

Stakeholder engagement (GRI 102-40, 42, 43, 44)

LIST OF STAKEHOLDER GROUPS	IDENTIFYING AND SELECTING STAKEHOLDERS (Why is this stakeholder important to us as a company?)	APPROACH TO STAKEHOLDER ENGAGEMENT (How do we normally engage with this stakeholder?)	KEY TOPICS AND CONCERNS RAISED (What are their key concerns? 3 year horizon)	KEMIRA'S RESPONSE (What are our key mechanisms that help us address these concerns?)
Customers	Our customers are Kemira's main source of value creation Our customers' expectations and needs drive our product portfolio and offerings	Direct customer contacts Customer webinars, events and newsletters Customer satisfaction measure Key drivers in customer satisfaction are the technical service, speed and proactivity, as well as our ability to offer new and sustainable solutions	Sustainable product offerings and chemical safety, resource efficiency and chemical safety Capability to proactively understand customer needs and to offer new and sustainable products and solutions Business ethics Our sustainability management and performance throughout the value chain	R&D project portfolio management Sustainability development in Product Development (e.g. circular economy, use of recycled raw materials and increase of bio-based solutions in product portfolio) Product lifecycle management for all aspects of product safety Improve understanding of customer needs beyond current offerings Sustainability performance data submitted on request
Shareholders and lenders	Share of our value creation through dividends and interest payments Expectations for return on investment, good corporate governance practices and sustainability performance	Regulatory financial communications: financial reporting and stock exchange communication Regulatory financial communications: financial reporting and stock exchange communication Regular events like roadshows, conference calls and one-to-one meetings	Overall management approach to sustainability issues, including climate change impact mitigation Business risks and opportunities related to sustainability of products, operations, ethics and compliance	Transparent and regular reporting and disclosure Participation in CDP Climate Change program Responding to rating company and investor questionnaires
Employees	Our employees' engagement, safety and well-being, integrity and competencies impact our value creation, operational and sustainability performance	Performance management and development process Regular Town hall meetings globally Co-operation with employee representatives Continuous listening and employee feedback Ethics and Compliance hotline and trainings Local wellbeing programs in all regions	Understanding Kemira's strategy and future direction New ways of working Ways of developing competences for the future Company sustainability impact and efforts Business Ethics and Human Rights Safety	Strategy refresh communication and action planning Performance and development discussions Leadership development Systematic competence development Team engagements on sustainability Rewarding and recognition

Suppliers	Share of our value creation through payments for goods and services Suppliers' sustainability performance may impact our operational efficiency and business risks	Working closely with key suppliers to help them meet our sustainability performance expectations, and take corrective actions if needed	Safety Environmental Labor & Human Rights Ethics Sustainable Products and services	Suppliers are asked to commit to Kemira Code of Conduct for Business Partners Supplier sustainability assessments and audits Sourcing sustainable raw materials
Local communities	Share of our value creation in the form of tax payments and employment Safety and environmental performance may impact the acceptance of our local presence	Dialogue and collaboration with local communities at major sites to ensure we understand and address their concerns Collaboration with schools and universities	Exposure to safety and environmental risk Employment opportunities	Environmental impact and process safety risk assessments Regular and open dialogue with local communities (e.g. open-door days)
Regulatory bodies, trade associations, decisionmakers and opinion leaders	These stakeholders have the capability to influence or make political decisions on legislation with an impact on our operations and business	Memberships in industrial trade associations Subject-specific dialogue with regulatory bodies on national and EU level	Resource efficiency Chemicals safety Climate change mitigation	Actively participating in dialogue on EU directive proposals on sustainability and the chemical industry Participation in CEFIC Participation in the Chemical Industry Federation of Finland

SUSTAINABILITY PRIORITIES

Sustainability is at the core of what we do and supports execution of our strategy and long-term value creation.

Our sustainability priorities are based on the most material impact of our business model, on the increasing expectations of our customers, investors and other stakeholders, and on our commitment to the Kemira Code of Conduct and internationally defined sustainability principles.

GOVERNANCE

Kemira measures progress in the sustainability priority areas through group-level key performance indicators (KPI) and targets that are approved by the Board of Directors.

Responsibility for individual corporate sustainability targets is shared between the members of the Management Board.

The Director of Sustainability is responsible for ensuring that relevant management processes relating to material corporate sustainability topics are being developed and implemented as part of our strategy and integrated management system. The Corporate Sustainability Management Team has members from different functions and the business segments. It acts as a collaboration forum to ensure the implementation and follow-up of sustainability as part of daily business operations.

Our priorities	MATERIAL TOPICS	KPIs & Targets	Management Board champion
People	Employee Engagement Diversity & Inclusion Skills & Development Human rights	2021-2025 Diversity & Inclusion: Reach top 10% cross industry norm for Diversity & Inclusion by 2025	EVP, Human Resources EVP, Human Resources Group General Counsel
Safety	People & Environment	TRIF 1.5 by 2025 and 1.1 by 2030	EVP, Operational Excellence
Water	Water availability	Fresh water use intensity is defined as m^3 water withdrawn minus cooling water use per ton of production. Baseline is 2019 at 1.9 m^3 per metric ton of production	EVP, Operational Excellence
Circularity	Hazardous waste Biobased products	Reduce waste intensity by 15% by 2030 Baseline is 2019 at 4.6 metric tonnes of waste per thousand metric tonnes of production and target is 3.9 by 2030. Revenue from Biobased products > 500 million EUR by 2030	EVP, Operational Excellence Chief Technology Officer Segment Presidents
Climate	Climate change mitigation	-30% from 2018 Scope 1 and Scope 2 emissions by 2030. 2018 baseline 930 kt CO_2e	Segment Presidents EVP, Operational Excellence

Key policies	Policy owner	Link to priorities
Code of Conduct	Group General Counsel	People, Safety
Product stewardship policy	Head of Product Stewardship and Regulatory Affairs	Safety
Trade compliance policy	Head of Product Stewardship and Regulatory Affairs	Safety
Intellectual Property Rights policy	Chief Technology Officer	Water, Circularity and Climate
EHSQ policy (including Energy policy)	Head of Environment, Health, Safety and Quality	Safety, Water, Circularity and Climate
Sourcing and procurement policy	EVP, Operational Excellence	Safety, Water, Circularity and Climate
Logistics and transportation policy	Head of Global Supply Chain Management	Safety and Climate
Recruitment policy Compensation policy	EVP, Human Resources	People
Global competition law compliance policy	Group General Counsel	People
Gifts, entertainment and anti-bribery policy	Group General Counsel	People

INTEGRATED MANAGEMENT SYSTEM

Globally, we aim to bring together all of our operations under the Kemira Integrated Management System. The Kemira management system defines the way our organization is working through the set of policies, standards, procedures and processes. It also defines the requirements and accountabilities at each level of the organization.

Conformance to Integrated Management System and compliance to legal requirements are ensured by regularly monitoring the performance indicators and by conducting internal and external audits and management reviews. The management reviews are performed at all levels of the organization from manufacturing to regional management and the Management Board.

Kemira has a principle that all operations under our Integrated Management System meet the international standards ISO 9001:2015 for Quality, ISO 14001:2015 for Environment, and ISO 45001:2018 for Occupational Health and Safety. Our Energy Management System is certified to ISO 50001:2018. Our Integrated Management System is externally audited through a three-year audit scheme. In 2020, we had eighty-two (82) internal and external management systems audits, including manufacturing sites, major office locations and R&D centers.

Integrated management system

Number of manufacturing sites certified in 2020:

	EMEA	AMERICAS	APAC	Total*
ISO 9001	31	15	6	52 (83%)
ISO 14001	31	14	6	51 (81%)
ISO 45001	31	15	6	52 (83%)

*Kemira has 63 sites in total.

PRODUCT DESIGN FOR SUSTAINABILITY

Kemira's New Product Development (NPD) process follows a stage-gate model. Successful projects must demonstrate both improved sustainability and business benefits at each decision gate to justify the project's continuation, and ultimately the product launch. Our sustainability evaluations examine the economic, environmental and social impact of any new product, both in Kemira's operations and in our customers' operations.

In R&D we consider and avoid use of hazardous substances when selecting raw materials for product development. In cooperation with PSRA R&D also make plans to replace raw materials with concerns or risks in product recipes. These actions improve the safety in transporting, storing and usage and in disposal of materials from our manufacturing processes

The NPD projects also aim to identify and evaluate more sustainable and bio-based alternatives for raw materials, in terms of sources, and use in whole product life cycle.

Sustainability evaluation throughout the New Product Development projects

Sustainability evaluation in NPD projects	Evaluation criteria applied for two perspectives: Kemira and our customers	Benefits to both Kemira and our customers
	Economic impact	→ Improved economic value both to Kemira and our customers
	Environmental impact	→ More efficient use of energy, water and raw materials
	Social impact	→ Improved safety and regulatory compliance of products and safety of operations

PRODUCT STEWARDSHIP

Kemira's Product Stewardship Policy defines the minimum requirements for our operations to ensure that our products can be safely used by our stakeholders, and that chemical risks and their impact are incorporated in decision-making relating to our business. Our customers have their own health, safety and environmental requirements for their input materials, and they typically follow several voluntary certification schemes, including eco-labeling schemes, which set further expectations on our product offerings. Chemical hazard assessments are not only prepared for products but also for raw materials, process aids and intermediates; and are incorporated in change management process during their full lifecycle. Product stewardship is the key pillar in the Responsible Care® program and involves the proactive management of the health, safety and environmental aspects of a product throughout its lifecycle. Product stewardship provides a platform that helps us to identify concerns relating to specific chemicals and their hazards at an early stage and manage those risks along the value chain to fulfill the expectations of different stakeholders.

Product regulatory compliance

The manufacturing and sale of chemicals are widely regulated around the world. Continuous follow-up of the regulatory development activities is the prerequisite for business compliance and plays a key role in ensuring product safety for customers, value chain and stakeholders.

Product lifecycle management

All of our products, handled raw materials and intermediates need to comply with all applicable chemical regulatory requirements in the countries where we manufacture and/or sell chemicals. Assessments examining regulatory compliance, human health impact, safety issues and environmental protection aspects all form part of our Product Lifecycle Management process from conception and development to manufacturing and sales, and finally to product elimination. All data related to chemical products and substances including raw materials is managed in Enterprise Resource Planning system and is linked to Product Lifecycle Management tool/process.

Priority substance management

We actively track our portfolio for priority substances that are subject to future regulatory restrictions or associated with particular concerns and prepare management plans for these substances. Our priority substance management plan aims to define the specific risks associated with each substance, examine options for managing these specific risks, and formulate action plans for the preferred options. These options to mitigate risks may include, for example, substitution, phase-out or limiting exposure.

Commitment to animal welfare and sustainable palm oil supply

Kemira is committed to reducing, refining and replacing animal testing wherever possible. Kemira does not itself perform any animal experimentation in-house. All animal testing commissioned by Kemira is done to the highest of animal welfare standards following national and international legislation on the protection of animals and only if specifically required by legislation or for product safety purposes.

Kemira is a member of the Roundtable on Sustainable Palm Oil (RSPO) supply chain standard for sustainable palm oil. However, RSPO certified palm oil currently has limited availability and Kemira is also forced to use palm oil derivatives without certification.

Product stewardship management approach
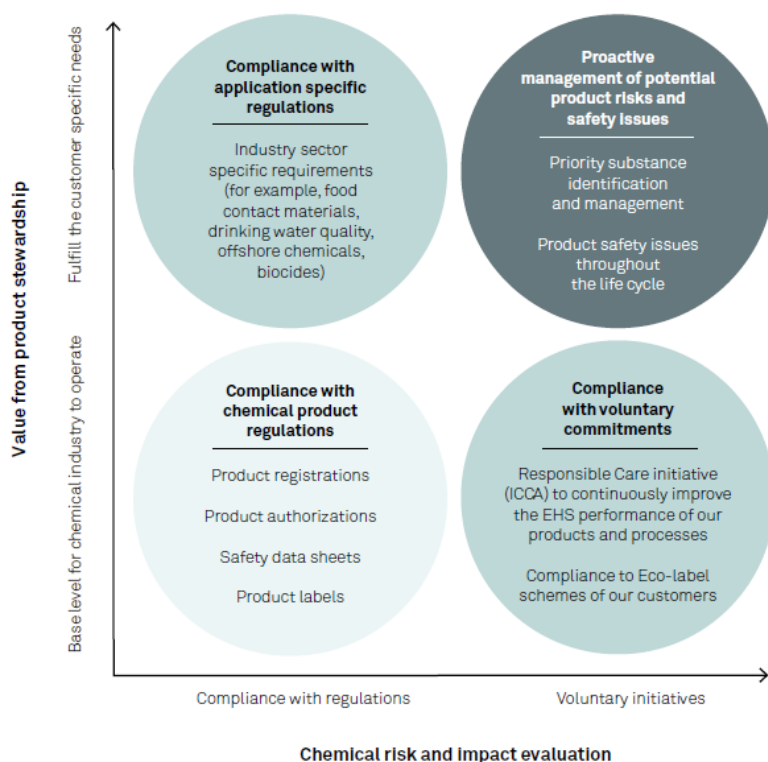
WORKPLACE SAFETY

High-performing Environmental, Health, Safety and Quality (EHSQ) management is fundamental to our business. Our daily EHSQ work is guided by regulations and statutory requirements, by our EHSQ policy, and by respective standards and operating practices. Our operations are managed to also meet the expectations of our stakeholders in our operating environment. The way to reach these goals is through continuous improvement in our EHSQ management, managing hazards pro-actively and engaging with our employees, contractors and business partners.

All aspects of safety management are fundamental to our operations: people safety, environmental safety, process safety, chemical safety and transportation safety. Our long-term vision is Zero injuries and illnesses, incidents, hazardous conditions, hazardous

behaviors and loss of asset integrity. Incidents in our operations can have consequences for our people as well as to those third parties that are working for us at Kemira sites or at a location where Kemira is present.

SUPPLIER MANAGEMENT

Our Sourcing function is globally responsible for strategic spend management, while our Supply Chain Management function provides supply chain related services on a regional level to our business segments.

Our Sourcing activities cover the identification and selection of suppliers, the consequent negotiations and contract management, and the management of supplier relationships. Our supplier selection criteria are based on cost competitiveness, short-term operational excellence, long-term business stability as well as sustainability performance.

Our Supply Chain Management activities cover all supply chain related services to our business segments once the supplier relationship has been established by our Sourcing function. Supply Chain Management services include Customer Service, Logistics, Supply Chain Planning, and Procurement. The Supply Chain Management function has regional units that each provide all the services needed within their respective regions.

The total spend of the Sourcing categories "direct materials" and "indirect goods and services", amounted to about EUR 1.755 billion in 2020. The direct materials cover all raw materials, packaging and energy while indirect goods and services include all non-raw material related spending, for example, on equipment, services, and logistics.

Supplier management and supplier risk and compliance management are cornerstones of our sustainable sourcing roadmap that ensure responsibility in our supply chain.

Our Supplier Management focus is on improving economic performance, anticipating risk and initiating approaches with suppliers that are responsible and innovative. It is described in three main processes: Supplier Segmentation, Supplier Performance Evaluations (SPE) and Vendor Value Program.

Our suppliers are segmented into four categories: strategic, critical, volume and base suppliers, and prioritized based on multi-factor risk criteria to help us better manage our suppliers and plan actions for necessary risk mitigation.

The SPE program collects and provides regular feedback to our suppliers both on their operational and sustainability performance. The majority of our strategic, critical and volume suppliers are part of regular supplier reviews.

Our Vendor Value Program is aimed at developing capabilities that will enable us to identify, partner with, and manage those suppliers, along the various value chains associated with Kemira's product lines.

Our supplier risk and compliance management define the requirements for suppliers to do business with Kemira, as well as provides tools and processes for mitigating the sustainability risk with our suppliers (sustainability assessments and audits).

Code of Conduct for Business Partners (CoC-BP)

All of our suppliers must follow our Code of Conduct for Business Partners (CoC-BP) in relation to all of their dealings with Kemira. Our CoC-BPis communicated to all suppliers through the ordering process as part of Kemira terms and conditions.

Supplier adherence to these principles is controlled in different stages of our Sourcing processes starting from the new supplier screening/new vendor creation process, to contracting where the commitment to our CoC-BP is integrated in the contract templates. Finally, we have continuous monitoring in place for those contracts exceeding certain spend thresholds to make sure we are reasonably covered (GRI 308-1: Supplier Environmental assessment; GRI 414-1: Supplier social assessment).

Supplier and supplier risk and compliance management
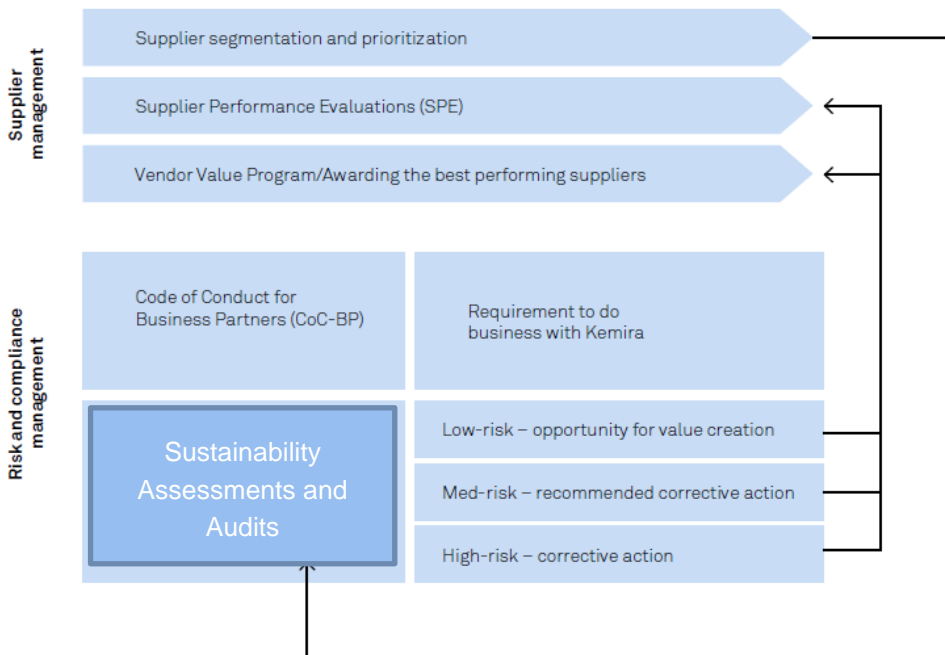
Sustainability assessments of suppliers

We continued enrolling new suppliers into our Sustainability program. A total of 291 (220) suppliers have now gone through the assessment and have recorded an average score of 54, which is higher than industry average on assessed average on the platform. Results with low scores were reviewed together with suppliers and improvement plans were made accordingly. In most cases, low scores were due to lack of supporting documentation provided by the vendor to the assessment company. Around 59% of the 291 reassessed suppliers were able to improve their score.

Corporate Social Responsibility audits of suppliers: In 2020, we conducted one Corporate Social Responsibility audit with no business stopping results. Audit results are being reviewed together with supplier and improvement plans created and followed up accordingly as part of our supplier management practices.

Quality audits of suppliers: Large spend suppliers also undergo quality audits, which include management systems, workplace health and safety standards, production quality and supply security. In 2020, 12 quality audits were conducted.

Supplier assessments and audits are part of sourcing processes and Sourcing function target setting and are monitored on monthly basis. In 2020, supplier assessment target was met but we were not able to conduct targeted number of audits mainly due to Covid-19 and related restrictions.

Structure of Kemira's supplier base:

	DIRECT MATERIALS	INDIRECT GOODS AND SERVICES
Number of suppliers, approximately	1,600	11,800
EMEA	700	6,400
Americas	600	3,800
APAC	300	1,600
Number of suppliers that form 80% of the category spend	10%	8%

INTEGRITY

Our values and Code of Conduct

Our management approach to integrity and responsible bussness practices is based on our corporate values and our Code of Conduct. These principles demonstrate our commitment to conduct our business in compliance with all applicable laws and regulations, and according to ethical standards.

Our Code of Conduct sets the minimum standards of expected behavior for our employees and business partners. Our internal policies and procedures provide more detailed guidance to steer our daily work and decision-making.

Kemira's Code of Conduct was reviewed, updated and approved by the Board of Directors in 2017, followed by an extensive global campaign during 2017-2018 and thereafter continuing yearly trainings and communications. Every employee is expected to comply with Kemira's Code of Conduct. All people managers and leaders are responsible for implementing the Code within their teams. Since 2013, we have required all of our employees to regularly complete the Code of Conduct training, which is currently available in 21 languages. We also train selected employee groups on more specific compliance matters, such as anti-bribery, competition compliance and insider information.

We expect our business partners to follow our CoC-BP in their business activities. Both of these Code of Conduct documents, as well as our corporate values can be found at www.kemira.com.

Our Ethics and Compliance Program

Our Ethics and Compliance Program aims to enhance compliance management at Kemira on a continuous basis. The program addresses all of the following measures taken to manage ethics and compliance risks:

- Prevention: measures that help us proactively prevent ethics and compliance risks from materializing
- Detection: measures that help us detect where ethics and compliance risks have materialized or may arise
- Responding: measures that help us investigate and respond to potential ethics and compliance breaches

Organizational structure for ethics and compliance

Our Ethics and Compliance function is responsible for overseeing the effective implementation of Kemira's Ethics and Compliance program. The status of the program is also reported directly to the Audit Committee on a regular basis.

The Compliance Committee oversees the management of compliance allegations to ensure fair and sufficient investigation, remediation and consistent disciplinary action across our organization. The committee consists of Group General Counsel, EVP Human Resources, Head of Internal Audit, and Director, Ethics and Compliance.

Our Local Ethics and Compliance Officer Network consists of employees across the organization based in different regions, who support our regional ethics and compliance communication, activities and overall awareness as part of their work.

Integrity Index

Integrity has been measured in the internal MyVoice Pulse survey 2020 using a new method (it is called 'Speak My Mind', which is one single item Index). Therefore, it is not directly comparable to the previous results.

In 2020 the Integrity Index score is 80 points, 10 points above manufacturing industry benchmark and the participation rate in the survey was 81%.

Mechanisms for seeking ethics advice and reporting concerns

We promote a culture that encourages our employees to speak freely. We actively encourage our employees to contact their managers, local HR, Legal or Ethics and Compliance function to express their concerns and ask questions.

All of our employees also have access to an externally hosted Ethics and Compliance hotline, which is a 24/7 service enabling them to report potential violations of our Code of Conduct or other ethical concerns. All employees can anonymously submit such reports in their own languages, by phone or through a web form, which can be accessed through Kemira's intranet, wherever such channels are not restricted by local legislation. Information about the availability of the Ethics and Compliance hotline is shared to all employees on Kemira's intranet. We provide regular training and communications to our employees on all of our available channels to report concerns

and to assure the anonymity of the report, as well as no retaliation. The hotline system and the process of handling the reports are managed by the Ethics and Compliance function.

The email address compliance@kemira.com can be used by third parties to report cases of potential misconduct relating to Kemira or our business partners. This information is available on our website and in Kemira's CoC-BP.

All allegations of potential violations of our Code of Conduct made in good faith will receive a fair and comprehensive investigation utilizing internal and/or external assistance. Any reporting of potential Code violations is treated as strictly confidential and anonymous to the fullest extent possible.

Concerns of allegations of potential code of conduct violations reported in 2020:

	NUMBER OF CASES	CASES CLOSED WITH MERIT	CASES CLOSED WITHOUT MERIT	OPEN CASES AS OF DEC 31, 2020
Cases reported via hotline	5	3	1	1
Cases reported via other channels	13	6	4	3
Total number of cases	**18**	**9**	**5**	**4**

Cases closed with merit by issue category:

	NUMBER OF CASES
Corruption and bribery	0
Code of Conduct (incl. Conflict of Interest / Safety)	4
Employee relations fair treatment	8
Harassment	3
Transactions and company records	3
GRAND TOTAL	**18**

GRI 406-1: Incidents of discrimination and corrective actions taken

During 2020, 18 incidents were reported to the Ethics & Compliance function alleging potential violations to the Code of Conduct. All cases were investigated (4 of them are still under investigation), 9 of the cases were closed with merit and remediated during 2020. No incident was concluded as being a case of discrimination.

ANTI-CORRUPTION

GRI 205-1: Operations assessed for risks related to corruption

Kemira conducted a global ethics and compliance risk assessment in 2020, covering key business operations and functions in all regions. Anti-corruption was one of the key focus areas in the assessment and the results of the assessments will be utilized in Kemira's ethics and compliance and internal audit plans for the next years. No significant risks related to corruption were identified through ethics and compliance activities or internal audits in 2020.

GRI 205-2: Communication and training about anti-corruption policies and procedures

Kemira's principles for anti-corruption are included in the Kemira Code of Conduct and in the Kemira Group Gifts, Entertainment and Anti-Bribery Policy. Both documents are available to all employees on Kemira's intranet, and the Code of Conduct is also publicly available at www.kemira.com.

Kemira's Code of Conduct has been approved by the Board of Directors, and as part of our mandatory and regular Code of Conduct training our anti-corruption principles are communicated to all of our employee groups and regions on a regular basis. All members of Kemira's Board of Directors have been trained on our anti-corruption principles.

Kemira provides mandatory anti-corruption training to its white-collar employees, who need to have a comprehensive understanding of Kemira's anti-corruption principles. The table below demonstrates the scope of the training, with a breakdown by employee category and regions.

Anti-corruption training performance:

		NUMBER OF PERMANENT EMPLOYEES, NOT ABSENT	NUMBER OF EMPLOYEES RECEIVED TRAINING ON ANTI-CORRUPTION	% OF EMPLOYEES RECEIVED TRAINING ON ANTI-CORRUPTION
Americas	White collars	830	804	97%
	Blue collars	632	0	
APAC	White collars	456	451	99%
	Blue collars	467	0	
EMEA	White collars	1,567	1,550	99%
	Blue collars	906	0	
Total		4,858	2,805	58%

We expect our suppliers and other business partners to conduct their business with integrity and commit to Kemira's CoC-BP in their business activities with Kemira. According to the CoC-BP, Kemira expects our Business Partners to ensure that they, and third parties acting on their behalf, do not offer, give or accept improper or corrupt payments, and that they will not engage in any form of bribery. We aim to communicate the CoC-BP to all of our suppliers, agents and distributors. All of our suppliers (engaged with an SAP Purchase Order) receive a written reference to Kemira's CoC-BP as part of the Kemira general terms of purchase on the back of the Purchase Order.

GRI 205-2: Total number and percentage of suppliers that our anti-corruption policy has been communicated to:

REGION	TOTAL NUMBER OF SUPPLIERS*	TOTAL NUMBER SUPPLIERS* THAT OUR ANTI-CORRUPTION PRINCIPLES HAVE BEEN COMMUNICATED TO	PERCENTAGE OF SUPPLIERS* THAT OUR ANTI-CORRUPTION PRINCIPLES HAVE BEEN COMMUNICATED TO
Americas	4,400	4,400	100
APAC	1,900	1,900	100
EMEA	7,100	7,100	100
TOTAL	13,400	13,400	100

*The numbers include suppliers engaged with an SAP Purchase Order. In addition to SAP transactions, some small purchases are processed via the travel claim process.

GRI 205-3: Confirmed incidents of corruption and actions taken

There were no confirmed incidents of corruption or public legal cases regarding corruption in 2020.
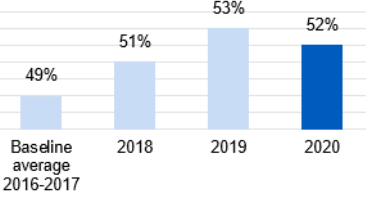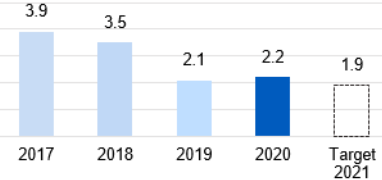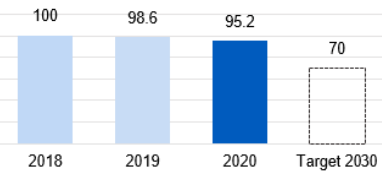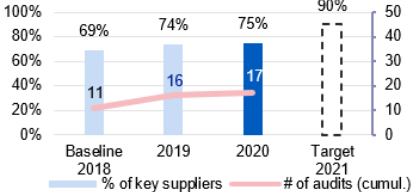
ANTI-COMPETITIVE BEHAVIOR

GRI 206-1: Legal actions for anti-competitive behavior, anti-trust, and monopoly practices

In 2020 Kemira continued to defend itself against a legal action filed by CDC PROJECT 13 SA against Kemira Chemicals Oy (former Finnish Chemicals Oy) in Amsterdam, the Netherlands, related to an alleged historical infringement of competition law in the sodium chlorate business by Finnish Chemicals Oy between 1994 and 2000. Kemira acquired Finnish Chemicals in 2005.

In 2020 Kemira had no other pending or completed legal actions initiated under national or international laws designed for regulating anti-competitive behavior, anti-trust, or monopoly practices.
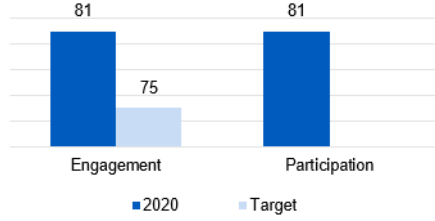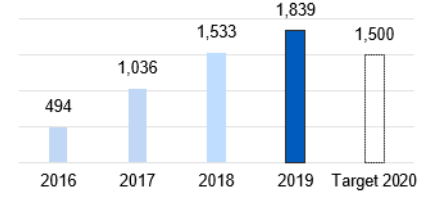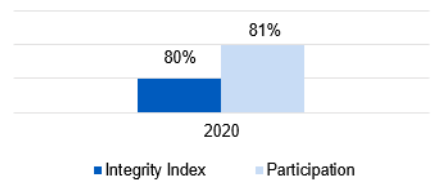
OUR PERFORMANCE INDICATORS

Kemira has measured progress in the sustainability priority areas through Group level KPIs and targets which are approved by the Management Board and reviewed by the Board of Directors. Kemira has defined the new sustainability KPIs (see Governance for more information of the new KPI). The performance indicators described in this chapter were valid until the end of 2020 and the new performance indicators including workplace safety and climate from this list will be valid from 2021 onwards (see Governance chapter, page 7).

Priority	KPI+target	Performance
Sustainable products and solutions	**Product sustainability** At least 50% of Kemira's revenue generated through products improving customers' resource efficiency.	49% Baseline average 2016-2017; 51% 2018; 53% 2019; 52% 2020
Responsible operations and supply chain	**Workplace safety** Achieve zero injuries on long term; TRIF* 1.9 by end of 2021.	3.9 2017; 3.5 2018; 2.1 2019; 2.2 2020; 1.9 Target 2021
	Climate change Reduce combined Scope 1 and Scope 2 greenhouse gas emissions by 30% by 2030, compared to the 2018 baseline (930 kt CO2eq). Ambition to be carbon neutral by 2045.	100 2018; 98.6 2019; 95.2 2020; 70 Target 2030
	Supplier Management Share of direct key suppliers screened through sustainability assessments and audits (cumulative %). The target includes five sustainability audits for the highest-risk** suppliers every year, and cumulatively 25 audits by 2020.	69% / 11 Baseline 2018; 74% / 16 2019; 75% / 17 2020; 90% Target 2021. % of key suppliers; # of audits (cumul.)

* TRIF = Number of Total Recordable Injury Frequency per million hours worked, Kemira + contractor, year-to-date
** Suppliers with lowest sustainability assessment score

	Integrity index KPI to measure compliance with the Kemira Code of Conduct. The target is to maintain the Integrity Index level above industry benchmark of 77%.	
People and integrity	**Leadership development activities provided, average** Two leadership development activities per people manager position during 2016–2020. The cumulative target is 1,500 by 2020.	
	Employee engagement index based on bi-annual MyVoice survey Keep the index at or above the external industry norm.	

ECONOMIC PERFORMANCE

GRI 201-1: Direct economic value generated and distributed

Kemira generates economic value from expertise, products and sustainable solutions, enabling our customers to improve their water, energy and raw material efficiency.

Kemira distributes the generated economic value to various stakeholders. This includes suppliers and service providers through payments for raw materials and services, employees through compensation and benefits, capital providers through dividends and interest payments, public sector through taxes, and society through local community projects, sponsorship and donations. Taxes have a significant impact on our businesses, financing and growth opportunities.

Kemira's approach to tax is to support responsible business performance in a sustainable way. A separate tax footprint report is available at www.kemira.com > Company > Investors.

The economic value retained is reinvested in the company for capital investments, R&D and technology development. The economic value retained decreased to EUR 283 million in 2020 (299 in 2019).

Economic value, cash flow based:

STAKEHOLDER	ECONOMIC VALUE EUR million	2020	2019	2018
Direct economic value generated: Revenues				
Customers	Income from customers on the basis of products and services sold, and financial income	2,443	2,687	2,614
Direct economic value distributed				
Suppliers	Payments to suppliers of raw materials, goods and services	1,630	1,861	2,001
Employees	Employee wages and benefits	373	366	352
Investors & lenders	Dividends, interests paid and financial expenses	121	122	114
Government & Public sector	Corporate income taxes	36	39	24
Economic value retained		**283**	**299**	**123**

ENVIRONMENTAL PERFORMANCE

MATERIALS

GRI 301-1: Materials used by weight or volume GRI 301-2: Recycled input materials used

The renewable materials used include mainly starches, tall oil, and fatty acid derivatives.

The recycled input materials are industrial by-products and recycled materials from external partners. These materials include mainly inorganic materials such as scrap iron, ferrous sulphate and spent pickling liquor bath. Industrial by-products are mainly from smelters, as well as steel and metal manufacturing. Inorganic byproducts and recycled materials are mainly used in the production of inorganic coagulants, which are used in water treatment.

MATERIALS	GRI disclosure	2020	2019		2018
Total raw materials used, million tonnes	**301-1**	**3.25**	**3.34**		**3.33**
Renewable raw materials, %	301-1	3.2	1.7		1.8
Renewable raw materials as a share of carbon-containing raw materials, %	301-1	17.7	11.8		N/A
Recycled raw materials, %	301-2	24.8	24.1		21.3
Carbon-containing raw materials, %		18.3	15.1		N/A

ENERGY

GRI 302-1: Energy consumption within the organization
GRI 302-3: Energy intensity
GRI 302-4: Reduction of energy consumption

Energy consumption and management

Energy costs amount to approximately 11% (12% in 2019) of our total sourcing spend. By continually improving energy efficiency at manufacturing sites, we are consistently reducing our energy usage and equivalent costs.

In 2020, our operations in Finland accounted for 41% of our total energy consumption. The USA accounted for 35%, and other countries accounted for the remaining 24%.

A substantial portion of our energy management activities is focused on the most energy-intensive sites, which include seven sodium chlorate manufacturing plants in Finland, USA, Uruguay and Brazil. Electricity is our most important energy source, accounting for 70%

of the total energy input. Sodium chlorate plants purchase 90% of the electricity, which is the main raw material in the chlorate manufacturing electrolysis process.

Kemira has certified the most significant energy consuming European sites (Äetsä, Joutseno and Helsingborg) to the ISO 50001 standard. Additionally the sites in San Giorgio and Fredrikstad are certified.

Energy balance, GWh:

	GRI disclosure	2020	2019	2018
TOTAL FUEL AND PURCHASED ENERGY INPUT		**4,692**	**4,859***	**4,959**
Consumed fuel as energy source		743	756	838
Non-renewable	302-1a	743	756	838
Renewable	302-1b	0	0	0
Purchased electricity	302-1c	3,301	3,454	3,446
Non-renewable		2,477	2,575*	2,561*
Renewable		825	879*	886*
Purchased heat and steam	302-1c	648	649*	675
Non-renewable		283	281	268
Renewable		364	368*	407
TOTAL FUEL AND PURCHASED ENERGY INPUT BY SOURCE	302-1a, b	**4,692**	**4,859***	**4,959**
Non-renewable		3,503	3,612*	3,667*
Renewable		1,189	1,247*	1,293*
TOTAL ENERGY SOLD		**471**	**495**	**528**
Heat[1] sold off-site	302-1d	390	414	448
Electricity sold off-site	302-1d	81	81	80
TOTAL ENERGY CONSUMPTION[2]	302-1e	**4,221**	**4,364***	**4,431**
CHANGE IN TOTAL ENERGY CONSUMPTION[3]	302-4	-142	-68	**20**
Production volume, 1,000 tonnes		4,946	5,108*	5,311*
ENERGY INTENSITY, GWh per 1,000 tonnes of production[4]	302-3	**0.85**	**0.85**	**0.83**

* Minor updates to data were provided by sites during 2020 data collection.
1. Sum of steam, district heat, condensate, and other heat delivered off-site.
2. The amount of fuel consumed plus purchased electricity and heat minus heat and electricity sold.
3. Comparison of total energy consumption to the previous year.
4. Kemira has calculated the energy intensity by dividing total energy consumption with the annual production volume. Energy intensity is strongly dependent on the types of production mix.

Energy Efficiency Enhancement program – E3plus

During 2020 we continued implementing our E3plus (Energy Efficiency Enhancement) program established in 2010. The E3plus program aims to reduce the overall specific energy consumption, measured as kWh per tonne of product, at each of our manufacturing sites.

The key focus areas of the E3plus program are:
- Continuing the global alignment of energy efficiency management across all Kemira sites
- Focused and thorough E3 Energy Reviews to identify improvement projects and support their implementation at our manufacturing sites
- Technical and economic evaluation of investment projects to improve energy efficiency
- Further development of the Kemira energy efficiency management system, improving energy management, and obtaining and maintaining ISO 50001 certification in 5 selected sites.

Our global Energy Management Team (EMT) coordinates, steers and supports energy management activities across all regions. Members of the EMT represent the top management of our manufacturing sites, as well as our global energy sourcing management.

Kemira participates in the voluntary national Energy Efficiency Agreement in Finland ("Energiatehokkuussopimus") for the period 2017–2025. This Agreement is a part of Finland's national ratification of the EU's response to the Paris Climate Agreement. To date, 57 implemented energy savings projects have been reported to the National Energy Authority in Finland ("Energiavirasto").

Our energy efficiency measures and activities focus on sites which have the highest energy consumption. Site-specific energy efficiency targets are defined for the largest energy consuming sites, based on energy consumption baseline data, the findings of E3 Energy Reviews, and the availability of resources.

During 2020 energy savings were additionally achieved through the implementation of 26 (27 in 2019) projects across Kemira's operations, saving a total of 23,557 (23,327 in 2019) MWh of energy (equivalent to EUR 1.0 (0.7 in 2019) million savings). The cumulative cost savings of the 538 such savings projects implemented since the start of the E3plus program in 2010, now total EUR 12.1 million (11.1 in 2019).

Kemira Energy Efficiency Index

The Kemira Energy Efficiency Index measures the ratio of energy use to production volumes normalized to a 2012 benchmark for our 14 large manufacturing sites covering approximately 90% of energy consumption. The index is not affected by changes in production volumes but may be affected by the product mix.

Kemira Energy Efficiency Index Performance:

2012	2013	2014	2015	2016	2017	2018	2019	2020
100.0	98.9	99.1	97.7	96.9	97.4	97.1	96.5	97.2

GREENHOUSE GAS (GHG) EMISSIONS

GRI 305-1: Direct (Scope 1) GHG emissions
GRI 305-2: Energy indirect (Scope 2) GHG emissions
GRI 305-3: Other indirect (Scope 3) GHG emissions
GRI 305-4: GHG emissions intensity
GRI 305-5: Reduction of GHG emissions

Kemira's GHG emissions are primarily carbon dioxide (CO_2), and negligible emissions of methane (CH_4) and nitrous oxide (N_2O). Kemira estimates GHG emissions using factors in terms of CO_2 equivalent (CO_2eq.) and does not specifically estimate and report mass emissions of CH_4 and N_2O since CO_2 comprises over 99% of CO_2eq. emissions.

The majority of the electricity used at our Kemira manufacturing sites is obtained from external providers. Many Kemira facilities consume steam and heat generated on-site.

Direct (Scope 1) GHG emissions from Kemira's manufacturing sites are from the following sources:
- Generation of electricity, heating, cooling and steam: these Scope 1 emissions result from the combustion of fuels in stationary sources, such as boilers and internal combustion engines. Kemira's manufacturing sites generally use low-carbon intensive fuels such as natural gas, propane, and diesel fuel.
- Emissions from physical or chemical processing of raw materials and chemicals such as sodium and calcium carbonate.

Indirect (Scope 2) GHG emissions include, but are not limited to, the CO_2 emissions from the generation of purchased or acquired electricity, heating, cooling, and steam consumed by an organization. Furthermore, many sites purchase or acquire electricity, heating, cooling, and steam resources from either the local municipal authority or from a separate manufacturing facility located within the same industrial complex.

Other indirect (Scope 3) GHG emissions are a consequence of Kemira's business activities but occur from sources not owned or controlled by our company.

Greenhouse gas emissions (1,000 tonnes CO_2eq) from manufacturing sites:

	GRI disclosure	2020	2019	2018
TOTAL GHG EMISSIONS[1]		**2,511**	**2,783***	**2,627**
Direct (Scope 1) GHG emissions[2a]	305-1	136	134	152
• Change		2	-18	-1*
Biogenic Direct (Scope 1) GHG emissions[2b]	305-1c	0	0	0
• Change		0	0	0
Energy indirect (Scope 2) emissions: market-based[3]	305-2	749	783	778
• Change		-34	5	-21
Energy indirect (Scope 2) emissions: location-based		845	896*	1,044
• Change		-51	-147	-4
Other indirect emissions: Scope 3[4a]	305-3a	1,626	1,866*	1,697
• Change		- 240	169*	-233
Other indirect emissions: Scope 3 Biogenic emissions	305-3c	0	0	0
• Change		0	0	0
CHANGE IN TOTAL GHG EMISSIONS	**305-5**	**-272**	**156***	**-245**
Production volume, 1,000 tonnes		4,946	5,108*	5,311*
GHG EMISSIONS INTENSITY, tCO_2 per tonnes of production[5]	**305-4**	**0.51**	**0.54**	**0.50**

* Minor updates to data were provided by sites during 2020 data collection.
1. Scope1 + Scope 2 market-based + Scope 3.
2a. GHG emissions from sources that are owned or controlled by Kemira (Scope 1 of the WRI/WBCSD GHG Protocol). GHG emissions are calculated as CO_2eq which includes CO_2, CH_4, N_2O, HFCs, PFCs, SF_6, NF_3.
2b. GRI Standard specifies reporting of biogenic emissions reported starting in 2017.
3. GHG emissions from the generation of purchased electricity, steam and heat that is consumed by Kemira (revised Scope 2 of the WRI/WBCSD GHG Protocol). Market-based emissions are used for target setting and following progress. Location-based emissions are also shown, but these are not used for other indicators. The sources for the emission factors used are the IEA, the UK government's Department for Environment, Food and Rural Affairs (DEFRA), Motiva Ltd. and energy utility companies.
4a. GHG emissions from Kemira's value chain (Scope 3 of WRI/ WBCSD GHG Protocol). Minor changes have occurred for previous years as more updated data was available for this report. The decrease in Scope 3 emissions from 2019 to 2020 is primarily due to improvements in the calculation methods, rather than a material decrease of emissions in Kemira's operations.
5. Kemira has calculated the GHG emissions intensity as the ratio of total GHG emissions per production volume. Direct GHG emissions (Scope 1), indirect GHG emissions from energy consumption (Scope 2 market-based) and other indirect GHG emissions (Scope 3) are included.

Kemira operates a transportation fleet in North America to deliver products to customers and raw materials to our manufacturing sites. The GHG emissions associated with the fleet are not included in the table above or in our climate target for our manufacturing sites. Beginning in 2019, Kemira obtained reliable fuel consumption data from our suppliers to estimate Scope 1 emissions related to our North America transportation fleet. The table below summarizes the emissions during 2019 and 2020. Kemira will continue to report these Scope 1 emissions in addition to the Scope 1 emissions from our manufacturing operations.

Greenhouse gas emissions (1,000 tonnes CO_2e) from North America transportation fleet:

2020	2019
18.1	11.4

GRI-305-3: Other indirect (Scope 3) GHG emissions

During 2020 we reviewed the assumptions for categories 1. Purchased goods and services; 4. Upstream transportation and distribution; and 9. Downstream transportation and distribution. Based on more accurate data on transportation and distribution, we were able to calculate the category 4 and 9 emissions more accurately.

Other indirect (Scope 3) GHG emissions by categories (1,000 tonnes CO_2e):

	GRI disclosure	2020	2019	2018
TOTAL SCOPE 3 EMISSIONS	305-3d	1,626	1,866*	1,697
1. Purchased goods and services		810	960*	1,040
2. Capital goods*		*	*	*
3. Fuel and energy related activities		200^	230	240
4. Upstream transportation and distribution		260^	290	110
5. Waste generated in operations		100	90	80
6. Business travel		5**	5**	5**
7. Employee commuting		10**	10**	10**
8. Upstream leased assets (leased offices)		10**	10**	10**
9. Downstream transportation and distribution		230^	270	200
11. Use of sold products		0	0	0
12. End-of-life treatment of sold products		1	1	2

* Emissions of Category 2: Capital goods are included in Category 1: Purchased goods and services.
** Categories 6–8 historically contribute less than 2% each year. 2018 - 2020 were assumed to be at the same level as historical years.
^ Calculation methodology for this category has been updated to include the GLEC framework methodology for downstream and internal movements paid by Kemira. Other logistics scenarios are calculated using the prior methodology.

Category 11 emissions were estimated to be zero or close to zero, as Kemira does not sell combustible fuels, products that form GHG emissions during use, or products that contain GHG. Category 12 covers all products sold. If a product is not known to have a new lifecycle, it is classified as waste.

The calculation is based on the GHG Protocol Corporate Value Chain (Scope 3) Accounting and Reporting Standard and a supporting guidance document Guidance for Accounting & Reporting Corporate GHG Emissions in the Chemical Sector Value Chain. Scope 3 emissions have been calculated since 2012. GHG emission are calculated as CO_2eq. The sources for the emission factors used include the guidance document for the Chemical Sector, the DEFRA, the IEA, Ecoinvent, CEFIC and ECTA. Data covers all of Kemira's production sites according to Kemira consolidation rules. The margin of error for Scope 3 calculations is +/- 20%.

NOTE: Category 10 Processing of sold products is not calculated because it cannot be reasonably tracked; Category 13 Downstream leased assets is not relevant to chemical sector; Category 14 Franchises is not relevant to chemical sector; Category 15 Investments: No information available.

Kemira Carbon Index

The Carbon Index measures Kemira's performance regarding CO_2 emission intensity. CO_2 emissions from energy used in manufacturing are considered. CO_2 emission intensity is defined as the ratio of CO_2 emissions from energy used in manufacturing to product tonnes (CO_2 t/t). The baseline year (2012) value for the index is fixed at 100. Subsequent years are calculated as the ratio between actual CO_2 emissions and the CO_2 emissions with the CO_2 emission intensity level of the year 2012. Lower Carbon Index value indicates that less CO_2 is emitted per product tonnes than in 2012 and a higher value that more CO_2 is emitted per product tonne than in 2012.

The calculation is based on the following information: Annual site-specific CO_2 emissions (calculated using the data of annual input and output energy flows by energy type and their respective CO_2 emission coefficients) and production structure (products and their volumes).

Kemira set a carbon index target of 80.0 for the year 2020. The carbon index values since 2012 are summarized below:

2012	2013	2014	2015	2016	2017	2018	2019	2020
100.0	88.1	91.0	92.6	85.6	85.6	83.1	83.6	80.6

At the end of 2019, Kemira set a target to reduce combined Scope 1 and Scope 2 market-based GHG emissions from our manufacturing sites by 30% by 2030 compared to a 2018 baseline of 930 thousand tons CO_2e. In aligning our company's climate target with the expectations of our stakeholders, our ambition is to be carbon neutral by 2045 for combined Scope 1 and Scope 2 market-based emissions GHG emissions. This target shows that Kemira fully supports the ambition of the UNFCCC Paris Agreement and that we recognize our contribution to the collaboration needed across sectors and stakeholders to ensure the implementation of solutions.

Kemira's Scope 1 and Scope 2 market-based emissions in 2020 were 886 thousand tons CO_2e. Assuming a linear decrease from the 2018 baseline to the targeted emission rate of 650 thousand tons CO_2e 2030, Scope 1 and Scope 2 market-based emissions in 2020 would be approximately 883 thousand tons CO_2e (0.3% difference based on tonnes). Kemira's emissions in 2020 are at the level expected to meet the 2030 climate target. Kemira has ongoing near-term projects which are expected to further reduce our emissions.

OTHER EMISSIONS TO AIR

GRI 305-6: Emissions of ozone-depleting substances (ODS)
GRI 305-7: Nitrogen oxides (NO$_x$), sulfur oxides (SO$_x$), and other significant air emissions

Kemira almost exclusively uses zero and low carbon fuels such as hydrogen and natural gas for its on-site steam and heat requirements. Mobile equipment such as fork trucks also use low carbon fuels such as natural gas, propane, and low-sulfur diesel fuel. Therefore, Kemira's releases into air of NO$_x$, carbon monoxide, and SO$_x$ from combustion processes are not a material topic for Kemira. Kemira's emissions of dust, acid gases, and volatile organic compounds (VOC) are associated with its material handling and manufacturing processes. These releases also are not a material topic for Kemira. Kemira continues to calculate these releases to review materiality on a periodic basis.

WATER

GRI 303-3: Water withdrawal GRI 303-4: Water discharge GRI 303-5: Water consumption
GRI 306-1: Water discharge quality

Through our EHSQ Policy, we strive to minimize water consumption and minimize the negative impact of water discharge activities on the quality of receiving water bodies. Kemira's manufacturing processes require water primarily for use as cooling water and process water.

We are continuously evaluating opportunities to decrease water withdrawal, consumption, discharge, and associated impacts through water recycling and reuse, and process redesign and optimization projects in our upgraded and new production line projects. Where possible, water is recycled and/or reused at our sites to reduce water withdrawal, consumption, and discharge.

Wastewater and cooling water discharges at the manufacturing sites are subject to chemical sector regulations and local discharge requirements (permitting and effluent quality), including the profile of the receiving waterbody.

Wastewater generated from Kemira's manufacturing processes are primarily treated in third-party wastewater treatment plants prior to discharge to a waterbody. Cooling water does not usually require treatment prior to discharge.

Information presented in this report is based on the GRI 303: Water and Effluents 2018 standard that was adopted in Kemira for the 2019 GRI Disclosures. Water withdrawal and discharge in our manufacturing sites is categorized as freshwater (<1,000 mg/L Total Dissolved Solids), except for one site that uses seawater as cooling water and discharges to seawater (>1,000 mg/L Total Dissolved Solids).

In accordance with the guidance provided in GRI 303-5, water consumption consists of the water withdrawn and incorporated into products, evaporated, consumed by humans, or otherwise unusable by others such that it is not released back to surface water, groundwater, seawater, or a third-party. Water storage is not a significant water-related impact at our manufacturing sites and therefore, is not reported in our disclosure.

Water risk assessment

In 2020, there were no significant fines or non-conformities with regards to environmental laws or regulations or claims from external wastewater treatment plant authorities against Kemira.

In 2020, Kemira updated its water risk assessment, using the World Resources Institute's Aqueduct Water Risk Atlas, a global mapping tool to identify water risks. The mapping covered all manufacturing sites. The results indicated that our withdrawals do not significantly affect water sources and basins for the following reasons:

- About 89% of total water withdrawal was used as cooling water and none of Kemira's water withdrawals and discharges are known to have, or are likely to have, a significant impact on the water body and associated habitats users. Based on the location of the manufacturing sites, the overall water risk was rated "Low" for 49% of the sites, "Low to Medium" for 35%, "Medium to High" for 6%, "High" for 5% and "Extremely High" for 5% of the sites.
- Based on the location of the manufacturing sites, 59% of sites are located in area of "Low" water stress, 14% in area of "Low to Medium" water stress, 14% in area of "Medium to High" water stress, 5% in area of "High" water stress and 8% in area of "Extremely High" water stress.
- The manufacturing sites located in areas of water stress (areas of "High" or "Extremely High" water stress - that is, areas in which more than 40% of available water is used by industry, household and agriculture) comprise 0.6% of total water withdrawal and 4.5% of total water consumption.

Water withdrawal, consumption and discharge trends

Total water withdrawal remained at approximately same level as in 2019 and decreased by approximately 10% compared to 2018. The total water consumption decreased by approximately 4% from 2019 and remained approximately at the same level as in 2018. The water withdrawal intensity (m^3 per tonnes of production) increased by approximately 3% from 2019 and decreased by approximately 3% compared to 2018. Most of the water withdrawal is used for cooling water (89%).

The total water discharges remained at the approximately same level as in 2019 and decreased by approximately 10% compared to 2018. Most of the water discharge is cooling water and other water that requires no treatment such as water pumped for groundwater level control and rainwater (92%).

COD and suspended solid discharges are primarily related to the biological wastewater treatment plant at one manufacturing site and overall discharges are minor at Kemira. Therefore, wastewater discharges by quality (including COD and suspended solids) are not a material topic for Kemira for GRI reporting purposes. However, Kemira continues to review GRI requirements and materiality on a periodic basis.

Overview of water flows (megaliters):

		GRI disclosure	2020 All areas	2020 Areas with water stress	2019 All areas	2019 Areas with water stress	2018
WATER WITHDRAWAL BY SOURCES, TOTAL		303-3	**93,545**	**528**	**93,812**	**433**	**103,413**
Surface water			62,531	0	61,959	1	65,076
Ground water			2,998	166	3,137	146	3,251
Seawater			16,667	0	16,893	0	23,345
Produced water			144	77	44	0	6
Total third-party water			11,205	285	11,780	286	11,735
Third- party water by source	Surface water		n.a.	154	N/A	148	n.a.
	Groundwater		n.a.	131	N/A	138	n.a.
	Seawater		n.a.	0	N/A	0	n.a.
WATER DICHARGES BY DESTINATION, TOTAL		303-4	**84,987**	**142**	**84,942**	**112**	**94,823**
Surface water			62,158	N/A	61,964	N/A	65,903
Ground water			0	N/A	0	N/A	0
Seawater			16,869	N/A	17,014	N/A	23,463
Total third-party water			5,960	N/A	5,964	N/A	5,457
Third-party water sent for use to other organizations			3,652	N/A	3,574	N/A	3,674
Water discharge by treatment	No treatment (mainly cooling water)		78,564	N/A	78,486	N/A	88,864
	Own treatment		463	N/A	492	N/A	502
WATER CONSUMPTION		303-5	**8,558**	**386**	**8,871**	**321**	**8,590**
WATER WITHDRAWAL INTENSITY, m3 per tonne of production			**19**	2	18	2	19
FRESH WATER USE INTENSITY, m3 per tonne of production			**1.9**		**1.9**		**N/A**
Production volumes, thousands of tonnes			4,946	335	5,108	282	5,311

Limited updates were done to 2019 figures compared to the total volumes by sites during 2020 data collection. Figures reported in 2019 are presented in Kemira's 2019 Corporate Sustainability report. Water withdrawal and water discharges in areas with water stress have increased from 2019 due to 2020 being first year in full production on one site located in water stress areas.

A breakdown of volumes by freshwater (<1,000 mg/L Total Dissolved Solids) and seawater (>1,000 mg/L Total Dissolved Solids) is not provided since only one site uses seawater as cooling water and discharges to seawater.

Produced water as defined in GRI 303 is generated mostly in Kemira's two tall oil plants in which water is extracted from raw material in process. Water as steam condensate also is categorized as produced water.

Water withdrawal and water discharge has reduced significantly from 2018 due to closure of a production plant at one site and annual variation in the need for cooling.

Kemira's target is to continuously improve freshwater use intensity. Fresh water use intensity is defined as m^3 water withdrawn minus cooling water use per ton of production. The baseline is 2019 at 1.9 m^3 per metric tons of production. Fresh water use intensity in 2020 was 1.9 m^3 per metric ton of production.

WASTE

GRI 306-2: Waste by type and disposal method

Through our EHSQ Policy, Kemira strives to minimize the amount of industrial and municipal waste generated through consistent material flow management processes and improvements to the efficiency of manufacturing processes. Waste in Kemira is disposed or recovered in compliance with statutory requirements.

Hazardous waste

15 manufacturing sites generate approximately 90% of the hazardous waste. In 2020, one site alone accounted for 47% of total hazardous waste generated, due to disposal of stormwater potentially impacted by acrylamide. Disposal of stormwater at the site as hazardous waste is done in accordance with local legislation and regulations. Kemira no longer operates the site as of December 2020. Therefore, Kemira's total amount of hazardous waste will be significantly reduced in 2021. The total amount of hazardous waste decreased by approximately 16% from 2019 mostly due to a decrease in generation of stormwater at the site described above and also due to decreased production at hazardous waste intensive sites.

Non-hazardous waste

8 manufacturing sites generate approximately 90% of the non-hazardous waste. The total amount of non-hazardous waste increased by approximately 8% from 2019. This is primarily due to a high amount of soil disposed of at one of the manufacturing sites in earthworks and an increase of non-hazardous waste at waste intensive site due to higher production.

Waste by type and disposal method (thousand tonnes):

	GRI disclosure	2020	2019	2018
Total hazardous waste	306-2a	**47.7**	**57.0**	**53.9**
Hazardous waste - Off-site landfilling		1.9	1.4	1.8
Hazardous waste - Off-site incineration		1.4	1.1	1.3
Hazardous waste - Off-site recycling		4.0	10.4	10.2
Hazardous waste - Off-site reuse		0.0	0.0	0.0
Hazardous waste - Off-site deep well injection		22.4	31.3	29.9
Hazardous waste - Off-site recovery including energy recovery		9.3	2.4	2.5
Hazardous waste - Other off-site treatment		8.8	10.3	8.2
Hazardous waste - On-site incineration		0.0	0.0	0.0
Total non-hazardous waste		**102.6**	**95.3**	**106.0**
Non Hazardous waste - Off-site landfilling		23.1	14.1	13.6
Non Hazardous waste - Off-site incineration		0.2	0.2	0.4
Non Hazardous waste - Off-site recycling		7.1	5.6	5.9
Non Hazardous waste - Off-site reuse		6.2	5.9	6.7
Non Hazardous waste - Off-site recovery including energy recovery		35.9	28.7	38.3
Non Hazardous waste - Other off-site treatment		29.7	40.5	40.6
Non Hazardous waste - Off-site composting		0.2	0.4	0.5
Non Hazardous waste - On-site incineration		0.0	0.0	0.0
Non Hazardous waste - On-site landfilling, net		0.0	0.0	0.0
Non Hazardous waste - On-site storage		0.0	0.0	0.0
Grand Total		**150.3**	**152.3**	**159.9**

There is a significant increase in "Non-hazardous waste – Off site recovery including energy recovery" due to a reclassification of a waste stream that is generated on one site where the waste stream has been previously reported only as wastewater. However, the waste stream is classified as waste in the environmental permit of the site and therefore the figures have been updated. In addition, limited updates compared to the total volumes were provided by sites during 2020 data collection. Figures reported in 2019 are presented in Kemira's Corporate Sustainability 2019 report.

Waste disposal method was determined based on information provided by the waste disposal contractor.

Most of Kemira's waste is routine waste that is normal process waste. Other waste categories are non-routine waste, such as demolition waste and spill debris, and disposed products.

Waste by categories in 2020 (thousand tonnes):

	Total Waste	Hazardous Waste	Non-hazardous Waste
Routine	128.9 (86%)	42.2 (88%)	86.7 (85%)
Non-routine	19.7 (13%)	4.6 (10%)	15.1 (15%)
Disposed Products	1.7 (1%)	0.9 (2%)	0.8 (1%)

Kemira's target is to reduce waste intensity by 15% by 2030. In the target we measure routine disposed waste, which is normal process waste that is disposed. It includes both hazardous and non-hazardous waste. It excludes waste that is recovered and re-used e.g. via recycling. It is expressed as an intensity, metric tons of waste per thousand metric tons of production. The baseline is 2019 at 4.6 and the target is 3.9 by 2030. The intensity in 2020 was 4.2. The intensity decreased due to changes in processes and due to annual variation.

GRI 306-3: Significant spills

Kemira follows an Incident Reporting Standard that defines incident types and establishes the minimum requirements for incident reporting and classification of all EHSQ incidents. This standard applies to all Kemira employees, contractors, temporary and supplemental staff at all Kemira and/or customer locations.

Kemira's definition of a significant spill includes a spill resulting in one or more of the following:

- A spill or leak of more than 1,000 kg of a hazardous chemical (those chemicals identified as hazardous or dangerous by federal, provincial, state or local regulations, or by internationally recognized protocols such as, United Nations dangerous goods classification or assigned a reportable quantity if spilled) outside of secondary containment or to the atmosphere
- Requirement for immediate reporting of an environmental release/spill to a regulatory agency
- Substantial negative publicity

In 2020 there were 4 significant spills compared to 10 in 2019.
- Manufacturing incidents accounted for three significant spills. All occurred at our manufacturing sites. The total volume of the significant spills at manufacturing plants were approximately 13 tonnes.
- One of the significant incidents was transportation incident related to loading activities at our manufacturing site. The total volume of the transportation incidents was approximately 1 tonne.

The significant spills did not have a permanent or significant impact on the environment beyond the remediated material. These spills were not reported in Kemira's Financial Statements.

GRI 306-4: Transport of hazardous waste

In 2020, approximately 48,000 tonnes of hazardous waste were transported by, or on behalf of Kemira, to external suppliers not owned by Kemira. Hazardous waste was not imported or treated by Kemira in 2020.

One of our sites in South America does not have a treatment or disposal option within the country for some of its hazardous wastes. Therefore, it must be shipped to the EU for disposal. In 2020, there were approximately 49 tonnes of hazardous waste exported from South America to Europe for disposal and 2 tonnes of hazardous waste between EU countries. In total, less than 1% of the hazardous waste generated in 2020 (less than 1% in 2019) by Kemira was shipped internationally.

ENVIRONMENTAL COMPLIANCE

GRI 307-1: Non-compliance with environmental laws and regulations

Kemira's integrated EHSQ management system is a set of standards, procedures, and practices to achieve environmental goals through continual planning, implementation, evaluation, and review of environmental performance. One of the primary environmental goals of Kemira's EHSQ management system is compliance with legal requirements. Kemira has identified its legal compliance obligations and implements an Auditing Standard to verify conformance. Kemira regularly conducts EHSQ compliance audits at manufacturing sites, research and development laboratories, and offices. Audits are performed by Kemira's independent internal auditing team and external consultants. Kemira's robust integrated EHSQ management system requires all sites to report non-compliances to the group's Global EHSQ Team using our incident reporting program (Synergi Life).

Kemira did not receive significant fines or non-monetary sanctions for non-compliance with environmental laws and/or regulations in 2020.

SOCIAL

INFORMATION ON EMPLOYEES

GRI 102-8: Information on employees and other workers

GRI 102-8: Total number of employees:

	2020	2019	2018
Total number of employees*	**4,921**	**5,062**	**4,915**
Female, %	26%	26%	26%
Male, %	74%	74%	74%
White collar, %	59%	59%	60%
Blue collar; %	41%	41%	40%

* At year end. Workers who are legally recognized as self-employed, or individuals other than the ones in Kemira's payroll are not counted on these numbers.

GRI 102-8a: Total number of employees by employment contract (permanent and temporary), by gender:

	2020	2019	2018
Total number of employees	**4,921**	**5,062**	**4,915**
Total permanent	4,819	4,940	4,789
Total fixed-term*	102	122	126
Female total	**1,280**	**1,295**	**1,255**
Permanent	1,228	1,237	1,205
Fixed term*	52	58	50
Male total	**3,641**	**3,767**	**3,660**
Permanent	3,591	3,703	3,584
Fixed term*	50	64	76

*Fixed term meaning temporary employment contract

GRI 102-8b. Total number of employees by employment contract (permanent and temporary), by region:

	2020	2019	%, 2020	%, 2019
Total number of employees	**4,921**	**5,062**	**100%**	**100%**
Americas	1,467	1,570	29.8%	31.0%
APAC	924	947	18.8%	18.7%
EMEA	2,530	2,545	51.4%	50.3%
Permanent total	**4,819**	**4,940**	**97.9%**	**97.6%**
Americas	1,462	1,570	30.3%	31.8%
APAC	924	947	19.2%	19.2%
EMEA	2,433	2,423	50.5%	49.1%

A temporary (fixed-term) employment contract is a type of employment used mainly in EMEA, atypical for Americas and APAC. In 2020 there were 102 employees (2.1%) with temporary contract (122; 2.4% in 2019).

GRI 102-8c. Total number of employees by employment type (full-time and part-time), by gender:

	2020	2019	2018
Total employees	**4,921**	**5,062**	**4,915**
Total full-time	4,832	4,980	4,842
Total part-time	89	82	73
Female total	**1,280**	**1,295**	**1,255**
Full-time	1,215	1,240	1,202
Part-time	65	55	53
Male total	**3,641**	**3,767**	**3,660**
Full-time	3,617	3,740	3,640
Part-time	24	27	20

GRI 102-41: Collective bargaining agreements

The collective bargaining agreements are measured for 'significant locations of operations' referring to countries with 10 or more employees. In Kemira's case there 25 such countries and altogether these countries represent 99% of all employees.
In 2020, 2120 (44%) of Kemira employees globally were covered by collective bargaining agreements.

EMPLOYMENT

GRI 401-1: New employee hires and employee turnover
GRI 401-1 a. Total number and rate of new employee hires during the reporting period, by age group, gender and region:

	Number of new hires			% of new hires		
	2020	**2019**	**2018**	**2020**	**2019**	**2018**
Total new hires	411	751	804			
New hires by age group	-	-	-	-	-	-
<30	184	289	319	45%	38%	40%
30-50	177	396	420	43%	53%	52%
>50	50	66	65	12%	9%	8%
New hires by gender	411	751	804	-	-	-
Females	131	208	222	32%	28%	28%
Males	280	543	582	68%	72%	72%
New hires by region	411	751	804	-	-	-
APAC	28	233	203	7%	31%	25%
EMEA	255	335	365	62%	45%	45%
Americas	128	183	236	31%	24%	29%

GRI 401-1 b. Total number and rate of employee turnover during the reporting period, by age group, gender and region:

	Number of new hires			Turnover, %		
	2020	**2019**	**2018**	**2020**	**2019**	**2018**
Total turnover	429	489	497	8.7%	9.7%	10.1%
Turnover by age group	-	-	-	-	-	-
<30	50	83	96	10.0%	14.6%	16.2%
30-50	**193**	253	253	6.6%	8.5%	8.9%
>50	186	153	148	12.5%	10.2%	10.0%
Turnover by gender	429	489	497	-	-	-
Females	95	123	148	7.4%	9.5%	11.8%
Males	334	366	349	9.2%	9.7%	9.5%
Turnover by region	429	489	497	-	-	-
APAC	53	63	72	5.7%	6.7%	9.3%
EMEA	145	254	233	5.7%	10.0%	9.0%
Americas	231	172	192	15.7%	11.0%	12.3%

The total turnover is based on permanent workforce.

LABOR/MANAGEMENT RELATIONS

GRI 401-2: Benefits provided to full-time employees that are not provided to temporary or part-time employees

The benefit programs at Kemira differ depending on regional and country specific practices, and the programs have been stable across recent years without major changes to the practices. In most countries, the same benefits are offered to full-time and part-time employees, and for temporary employees hired directly by Kemira, if the temporary contract exceeds a certain length.

Benefit practices are country specific and typically do not vary between locations and operations. Some exceptions apply – for example, some countries offer additional insurance and/or retirement benefits for permanent full- time employees. In North America, the eligibility for benefits is dependent on hours worked, in the USA employees are eligible if they work a minimum of 20 hours per week.

GRI 402-1: Minimum notice periods regarding operational changes

As stated in our Code of Conduct, all sites are obliged to follow local legislation, regulations and other agreements regarding labor practices, including notice periods. Minimum notice periods are defined in laws or in collective agreements, and are followed in each country accordingly. The time period for the consultation process relating to operational changes varies by country and region, starting from 14 days for smaller changes to up to six months in some countries and for major changes, varying between one to two months in most countries.

OCCUPATIONAL HEALTH AND SAFETY

GRI 403-2: Types of injury and rates of injury, occupational diseases, lost days, and absenteeism, and number of work-related fatalities

Our health and safety performance in 2020 was consistent with the previous year's performance. Kemira reports the occupational safety performance indicator as Total Recordable Injuries (TRI) which includes permanent injuries and fatalities, lost time incidents, restricted work cases and medical treatment cases covering Kemira employees and contractors working at Kemira sites. TRI Frequency (TRIF) is measured as Total Recordable Injuries per million working hours.

Kemira uses external service providers (contractors) which work at Kemira locations. These services cover, for example maintenance, repair, turnaround, major renovation, or specialty work at a Kemira site. We follow the contractor hours as this information is included in the workplace safety indicator TRIF. In 2020, there were approximately 3.0 million hours which equals to about 1,600 FTE (Full Time Equivalents) when assuming 7.5 hours per day and 250 working days per year.

Total number of TRIs in 2020 (2019) was 31 (30) and TRIF was 2.2 (2.1). The ratio of contractors' TRIs to total number of TRIs remained consistent with the 2019 level. Although we were slightly above our 2020 TRIF target of 2.0, Kemira's long-term trend remains positive and we look forward to meeting our 2021 goal of TRIF 1.9 and beyond.

No fatalities have been associated with Kemira employees or contractors since 2005. Although we saw a slight increase in the number of Lost Time Incidents (LTIs), we had no incidents leading to employee permanent injuries in 2020. Unfortunately, we had a significant incident at a manufacturing site during the construction of a new production line. This injury was the result of contractors working on an electrical breaker. Two contractors were working near live electrical components and were exposed to an electrical arc flash event. The contractors were working without a site approved work permit in violation of their own company and Kemira policies and procedures. One contractor was not injured, however the second contractor received burns to hand, face and neck. The injured contractor had to spend one night in hospital.

Like most organizations, Kemira put much effort in protecting our employees and their families from the COVID-19 pandemic. Kemira's early and proactive planning and response actions played a critical role in our ability to maintain operations while keeping our employees healthy, and also informed and productive. During the early phases of COVID-19 Kemira closed administrative offices where possible and modified manufacturing operations to limit the potential impact of the pandemic. Very quickly our organization had to pivot to accommodate most administrative and management employees working remotely from their homes. Our employees showed their resilience, by promptly adjusting to this new way of working; on-line meetings, extremely limited travel, social distancing and site entrance restrictions.

Although we successfully rapidly transitioned our administrative and management employees to remote work, our manufacturing sites had to also make massive changes to mitigate the risk of COVID-19 to our employees and contractors. This included extensive cleaning protocols, segregation of employees between shifts, securing PPE supplies, flexible working schedules, symptom screening of persons prior to entering the facility, contactless interactions with other persons and practices for quarantining employees.

The global COVID-19 pandemic has proven Kemira to be a nimble, proactive organization. Global and Regional Crisis Management Teams were established, first in APAC then in EMEA and AMER. There was no delay from management to begin to address the potential impacts of the pandemic. Within these Regional Crisis Management Teams, specialized Focus Teams were established to lead efforts to identify, procure and distribute PPE (gloves, masks and hand sanitizer), assist with human resource matters, develop plans for the eventual return from remote working, address the unique customer environments Kemira sales and technical professionals were encountering, and support our manufacturing sites.

We continued to make strides in our BBS program in 2020. BBS has proven to be an effective tool in developing a safety culture throughout our manufacturing operations and to ensure on-going engagement of our front-line employees. In 2020, Kemira employees performed over 316,000 individual BBS observations included in 12,600 surveys. This level of engagement and proactive identification of at-risk behaviors will continue to be a key driver of lowering our injury rates.

This year Kemira made a successful transition from OHSAS 18001 to ISO 45001 certification. This process was a complete global effort, with all the health, safety and employee well-being elements first being reviewed through internal audits, then by an external certification organization.

In 2020, Kemira continued systematically reporting process safety incidents (RPSI) based on the ICCA definition. This aligns Kemira's reporting with similar organizations and will improve our ability to identify and control process safety risks. Additionally, we expanded our formal root cause analysis and investigation process to include major RPSI in AMER, and we plan to further this effort into other regions in 2021.

Kemira employs a large number of Commercial Sales Representatives, which may perform a variety of functions at customer locations. Depending on the product line and customer requirements our Commercial Sales Representatives can perform tasks such as equipment upkeep, process sampling and inventory management at the customer facility. In 2020, Kemira began a refresh of our health and safety requirements and training for Commercial Sales Representatives. This refresh included an update to our Field Work EHS Standard, formal live training sessions for the Commercial Sales Representatives, and the implementation of a mobile application for the completion of the required job hazard assessment. Even though our Commercial groups have shown good safety performance historically, we feel that this renewed look at our requirements and tools will allowed for continued success in the future.

The number of Near Misses (621) which under different circumstances could have resulted in harm to people was lower compared with previous year (1329). It is believed that 2020 Near Misses decreased due to intensive remote activity, however their number is expected to increase when all Near Miss cases are reviewed, classified and closed. Based on 2019 a 25% increase is expected in the final 2020 Near Miss total.

Hazardous Conditions/Activities reporting is a leading safety indicator reflecting environmental or behavior related hazards at the workplace. The number of reported Hazardous Conditions/Activities was 20,875 in 2020 which equals 4.2 per Kemira employee. Because of the amount of remote working employees, the total Hazardous Conditions/Activities reported showed a minor decline compared to 2019. The proactive identification of Hazardous Conditions/Activities not only allows us to avoid incidents but also improves our operations and work methods.

Personal injuries pyramid 2020 (2019):

TRI 31 (30); LTI 19 (15)

- 0 (0) — Fatalities/permanent injury
- 19 (15) — LTI
- 12 (15) — MTC/RWC
- 125 (140) — FAC
- 621 (1329) — Near Misses
- 20875 (23703) — Hazardous Condition/Activity
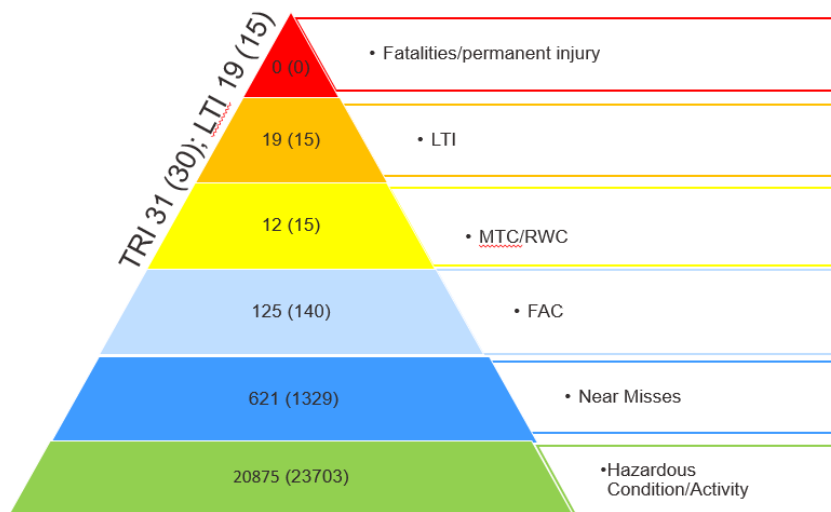
Incident classification	Definition
Permanent injury	A work-related injury leads to damage that will indefinitely restrict the employment or other normal activities of an individual.
Lost Time Incidents (LTI)	A work-related injury or illness, suffered by a Kemira employee or contractor resulting in at least **one** full day of time away from work (this does not to include the day of the injury), as determined by a physician or other licensed health care professional.
Medical Treatment Case (MTC)	Any work-related injury or illness that requires professional medical treatment or a prescription medication. Medical Treatment means beyond first aid level medical attention.
Restricted Work Case (RWC)	A work-related injury or illness that requires the employee to have restricted work, or transfer to another job for at least one full day, as determined by a physician or other licensed health care professional.
Total Recordable Injury (TRI)	TRI is the sum of Fatalities, LTI, RWC, and MTC.
First Aid Case (FAC)	First aid refers to a work related minor injury or illness which can be treated by a first responder or equivalent and does not require a professional physician or paramedic medical attention.
Near Miss	An undesired event in the work environment that under different circumstances could have resulted in harm to people.
Hazardous Condition/Activity	Leading safety indicator reflecting environmental or behavior related hazards at the workplace.

Our safety performance (TRIF) 2014-2020 and target 2021:

Our safety performance (TRIF)

Total Recordable Injuries:

	2020	2019	2018
Total TRI	**31***	**30**	**44**
Kemira employees	21	21	30
Contractors working at Kemira site	10	9	14
Regional TRI			
APAC	1	2	4
EMEA	15	19	22
Americas	14	9	18
*Global Functions 1 TRI			
TRI Frequency			
Global TRIF	2.2	2.1	3.5
Kemira employees	1.9	1.9	3.0
Contractors working at Kemira site	3.3	2.9	6.7
Regional TRIF			
APAC	0.3	0.6	2.0
EMEA	2.6	3.5	4.1
Americas	3.4	2.3	4.6

Lost Time Incidents:

	2020	2019	2018
Total LTI	**19**	**15**	**25**
Kemira employees	14	11	15
Contractors working at Kemira site	5	4	10
Regional LTI			
APAC	0	1	0
EMEA	12	11	16
Americas	7	3	9
LTI Frequency			
Global LTI	1.4	1.1	2.0
Regional LTI			
APAC	0.0	0.3	0.0
EMEA	2.1	2	3.0
Americas	1.7	0.8	2.3

TRAINING AND EDUCATION

GRI 404-1: Average hours of learning per year per employee

Kemira continued in 2020 to advance towards its aims to capture all training, education and employee development related hours in the learning management system (LMS). So far, leadership development activities, regional and global competence development and vocational training programs and many local programs are recorded in the LMS. However, some remaining training and development activities are still recorded locally.

Learning hours registered in the system for larger countries in 2020 are:

Country	2020	2019
Finland	8,268	9,767
UK	5,831	8,751
Sweden	5,014	5,990
USA	8,775	6,281
Netherlands	4,039	2,839
China	22,899	43,897
Poland	5,050	6,969

The increase in learning hours recorded in USA includes EHSQ and commercial competence program and for Netherlands to support capacity expansion. The decrease in recorded learning hours in China is due to the capacity expansion in 2019 which increased the hours exceptionally.

The average hours of learning for employees do not differ significantly by gender. Globally registered average hours per employee for white collar employees are higher than for blue collar employees due to focus on competence development learning paths studied in 2020.

GRI 404-2: Programs for upgrading employee skills and transition assistance programs

Kemira provides each employee with access to the relevant competence development programs and structured learning opportunities to support upgrading of employee skills through on-the-job learning programs (including generic and job-specific competence development), buddy/coaching/ mentoring programs, and traditional methods like classroom and digital learning.

The scope includes:
- Leadership development (internal and external) programs
- Professional & technical competence development programs
- Statutory or compliance related programs

These programs are available based on the position, skills/competence level and career aspirations. With the exception of leadership development programs and other external cost-based programs (pre-approval required), employees can typically enroll and complete the self-paced learning programs available through our LMS (Learning Management System). We had a strong leadership development portfolio offering and consistent participation in 2020.

Examples of other global and regional programs offered during 2020 are listed below:
- Code of Conduct, Anti-corruption, Human rights and Business and other compliance programs delivered mainly through eLearning
- Learning Solutions for Commercial roles as part of professional competence development included Value Selling, Negotiation, Insight, Innovation & Creativity, Adaptability, Strategic Thinking, Account Development and Ownership delivered as co-created self-paced eLearning and virtually
- EHSQ related programs including EHSQ Policy, EHSQ Life Saving Rules and global EHSQ Standards, Code of Behaviour, Travel Safety during COVID-19 and Social Distancing and Hygienics during COVID-19
- Trade Compliance Trainings
- IT trainings on IT's role in projects, purchasing SaaS services and stopping invoice scams
- Introduction to Data & Analytics at Kemira (New eLearning offered to all employees from December 2020 onwards)
- MySales trainings
- Project Management Fundamentals and Agile & Scrum Fundamentals
- Leadership training programs
- Respect in the Workplace (Americas)

Kemira also provides transition assistance programs where relevant, with bigger changes to facilitate the continued employability and management of career endings resulting from retirements or termination of employment. These have included:
- Up-skills training for those intending to continue working with Kemira
- Severance pay
- Career planning and out-placement/job placement services

GRI 404-3: Percentage of employees receiving regular performance and career development reviews

Our global performance and development discussion (PDD) process covers all permanent employees, both white collar and blue collar, who are not absent for an extended time period because of leave, for example. Temporary employees' inclusion in the PDD process is evaluated case-by-case, depending on the length of the contract.

GRI 404-3a. Percentage of total employees by gender and by employee category who received a regular performance and career development review during the reporting period:

Performance and Development Discussion (PDD)	Number			%		
	2020	**2019**	**2018**	**2020**	**2019**	**2018**
Total permanent employees not absent*	4,757	4,771	4,597			
Employees covered in Global PDD process	**4,383**	**4,593**	**4,093**	**92%**	**96%**	**89%**
Female	1,129	1,142	1,099	97%	98%	95%
Male	3,254	3,464	2,994	91%	96%	87%
White collars	2,701	2,748	2,731	99%	98%	97%
Blue	1,682	1,845	1,362	83%	94%	76%

DIVERSITY AND EQUAL OPPORTUNITY

GRI 405-1: Diversity of governance bodies and employees

As stated in our Code of Conduct, we respect the diversity, talent and abilities of others. We at Kemira define 'diversity' as all the unique characteristics that make up each of us: personality, lifestyle, work experience, ethnicity, religion, gender, sexual orientation, age, national origin, ability and other characteristics. We focus our efforts to attract, develop and retain a workforce that is diverse, and to ensure an inclusive work environment that embraces the strength of our differences. We do not discriminate or treat employees or job applicants unfairly in matters that involve recruiting, hiring, training, promoting, compensation or any other term or condition of employment.

GRI 405-1a. Percentage of individuals within the organization's governance bodies in each of the following diversity categories: Gender, age group, other indicators of diversity where relevant

	Total			%		
	2020	**2019**	**2018**	**2020**	**2019**	**2018**
Management Board						
Total	**8**	**8**	**8**		**-**	**-**
Female	1	1	1	13%	13%	13%
Male	7	7	7	88%	88%	88%
By age group	-	-	-		-	-
<30	0	0	0	0%	0%	0%
30-50	1	1	1	13%	13%	13%
>50	7	7	7	88%	88%	88%
Board of Directors						
Total	**7**	**6**	**6**		**-**	**-**
Female	3	3	3	43%	50%	50%
Male	4	3	3	57%	50%	50%
By age group		-	-		-	-
<30	0	0	0	0%	0%	0%
30-50	1	1	1	14%	17%	17%
>50	6	5	5	86%	83%	83%

GRI 405-1b. Percentage of employees per employee category in each of the following diversity categories: Gender, age group, other indicators of diversity where relevant

	Total			%		
	2020	**2019**	**2018**	**2020**	**2019**	**2018**
Total employees	**4,921**	**5,062**	**4,915**	**100%**	**100%**	**100%**
<30	501	569	594	10%	11%	12%
30-50	2,930	2,989	2,848	60%	59%	58%
>50	1,490	1,504	1,473	30%	30%	30%
Female	**1,280**	**1,295**	**1,255**	**26%**	**26%**	**26%**
<30	158	171	179	12%	13%	14%
30-50	851	858	827	66%	66%	66%
>50	271	266	249	21%	21%	20%
Male	**3,641**	**3,767**	**3,660**	**74%**	**74%**	**74%**
<30	343	398	415	9%	11%	11%
30-50	2,079	2,131	2,021	57%	57%	55%
>50	1,219	1,238	1,224	33%	33%	33%

GRI 405-2: Ratio of basic salary and remuneration of women to men

Kemira operates a global job structure that is applied to all white-collar employees. The job structure describes job families and the respective job roles with required qualifications and main responsibilities. The job structure links to job grades, which define the salary range and the incentive opportunity for a specific job role. The job grades and salary data information allow Kemira to evaluate, analyze and implement equal remuneration. Factors impacting salary increases includes employee performance and the position of an employee's salary within the salary range, as well as country-specific statutory increases and merit increase opportunities. Incentive payouts are based on measured achievement for pre-defined targets on the company, unit and individual levels.

Disclosure 405-2a. Ratio of the basic salary and remuneration of women to men for each employee category, by significant locations of operation:

Country	Women to men pay ratio 2020	Women to men pay ratio 2019	Women to men pay ratio 2018	White collar headcount 2020
Austria	87%	89%	87%	50
Brazil	91%	92%	85%	131
Canada	89%	90%	88%	126
China	90%	89%	93%	282
Finland	92%	90%	92%	575
Germany	97%	97%	96%	83
Italy	93%	93%	90%	68
Netherlands	88%	91%	89%	82
Poland	96%	97%	97%	322
Spain	91%	85%	84%	52
Sweden	95%	99%	97%	144
United Kingdom	94%	92%	92%	92
United States	92%	92%	92%	539
Total for largest countries	92%	92%	92%	2,546

FREEDOM OF ASSOCIATION AND COLLECTIVE BARGAINING

GRI 407-1: Operations and suppliers in which the right to freedom of association and collective bargaining may be at risk

Kemira respects the freedom of association and collective bargaining as stated in our Code of Conduct, and through our commitment to the United Nations Global Compact. We expect our suppliers to respect these same principles and commit to the CoC-BP. All of our Suppliers (engaged with an SAP Purchase Order) receive a written reference to CoC-BP as part of the Kemira general terms of purchase on the back of the Purchase Order.

To increase Kemira employees' awareness of their rights regarding freedom of association and collective bargaining, we provide regular training on our Code of Conduct.

In 2020 Kemira did not identify any violations of freedom of association or collective bargaining in our own operations, and no evidence has been found to indicate that suppliers would be restricting their employees' opportunities to exercise freedom of association and collective bargaining based on sustainability assessments of our key suppliers, representing approximately 38% of our total spend since 2014.

For additional information, see the Integrity section for details of our Code of Conduct training and Ethics and Compliance hotline. Details of the numbers of employees covered by collective bargaining agreements are given under GRI 102-41.

HUMAN RIGHTS ASSESSMENT

GRI 412-1: Operations that have been subject to human rights reviews or impact assessments

A Human Rights Impact Assessment was conducted in 2014 to identify any risks of a human rights impact throughout our operations and value chain, and any potential gaps in our management approach to human rights as evaluated against the Operational Principles of the United Nations Guiding Principles of Business and Human Rights. The findings indicated potential risks from our business with hazardous chemicals, upstream and downstream business relationships, and emerging market expansion. The Human Rights issues most relevant to Kemira relate to employment practices and the health and safety aspects of our products, workplace and operations.

The focus has been on increasing overall awareness and due diligence on human rights throughout the organization. All employees are provided regular and compulsory training on the Code of Conduct, including an awareness of human rights. The group of employees (white collar) who are responsible for ensuring that human rights are respected in our business relationships and in our own operations were provided the basic training on human rights in 2015 and since then all new hires must participate in this training as part of their induction program.

Key activities in 2020
- Continued the global 90-day onboarding program for new hires (white collars) that automatically assigns online courses on Code of Conduct and Human Rights and Business. By the end of 2020, 66% of white collar new hires have completed the basic training on Human rights and Business as part of their onboarding program.
- All relevant sales team members are trained on third party due diligence for potential new business partners and a new process is introduced to further develop our third-party risk management.
- Workplace safety – we further developed our safety culture through the Behavior Based Safety Culture program, target setting, training and communications measure. For more information, see indicator GRI 403-2 for workplace safety.
- Product safety – product lifecycle management. For more information, see indicator GRI 416-1 for product stewardship.
- Supplier assessments and audits – For more information, see supplier Management section.

PUBLIC POLICY

GRI 415-1: Political contributions

The Kemira Code of Conduct, Kemira Group Sponsorship and Donation policy and the Kemira Group Gifts, Entertainment and Anti-bribery Policy, prohibit any financial support to politicians, political parties or political organizations. No financial or any in-kind political contributions paid by Kemira have come to Kemira's attention during 2020.

CUSTOMER HEALTH AND SAFETY

GRI 416-1: Assessment of the health and safety impact of product and service categories

According to Kemira's product stewardship policy, we are acting:
- to comply with all applicable chemical regulatory requirements in the countries where we either manufacture and/or sell chemicals covering raw materials, intermediates, processing aids and products
- to make hazard assessments covering regulatory compliance, human health, and safety, as well as environmental protection aspects, as part of the Product Lifecycle Management processes throughout products' lifecycle from development to termination
- to maintain data related to chemical products and substances including raw materials is managed in ERP and is linked to Product Lifecycle Management tool/ process
- to proactively identify and manage chemical risks and concerns to build management action plans for the identified unacceptable risks to human health, safety or environment; covering all substances from raw materials to products
- to share information with our stakeholders about the health and safety aspects of products and to ensure that our customers can safely use our products

Kemira complies with all laws and regulations relating to chemicals and trade. Kemira does not sell any banned products. We continuously screen substances that are covered by any regulatory restrictions, or subject to substitution requirements imposed by non-regulatory stakeholders. We proactively work to mitigate health, safety, environmental and image-related risks (GRI 102-2: Activities, brands, products, and services).

GRI 416-1: Percentage of significant product and service categories for which health and safety impacts are assessed for improvement.

At the end of 2020, 100% (19 out of 19) of the identified 19 SVHC substances had a management plan approved by the Operational Excellence board. We have reduced 2 SHVC substances out from our portfolio during last year.

GRI 416-2: Incidents of non-compliance concerning the health and safety impact of products and services

We are not aware of any fine, penalty or warning for noncompliance with regulations and voluntary codes regarding our products or services in 2020.

MARKETING AND LABELING

GRI 417-1: Requirements for product and service information and labeling

Kemira's product portfolio consists of seven major product lines and approximately 1,484 different products. All of these products are duly documented and labeled according to legal requirements, including the identification of their hazardous components and information on their safe use. Kemira provides Safety Data Sheets (SDS) for all products, independent of the product safety classification, even if in most jurisdictions Safety Data Sheets are mandatory only for hazardous products. Our IT system for Product Lifecycle Management enables us to prepare SDSs and labels in alignment with the latest regulatory data requirements and in the official languages of the countries where our products are manufactured, stored or sold. In EU member states, the information requirements are stated under REACH regulations with regard to substance properties, exposure, use and risk management measures, and the chemical safety assessment. Registered uses will also be communicated via the updated extended SDSs for downstream users. In addition to the information provided on product labels and Safety Data Sheets, more detailed information about products and their raw material ingredients can be provided on request.

In 2020, the Kemira Product Stewardship & Regulatory Affairs team responded to 6947 (7799 in 2019) requests concerning product safety and/or regulatory. The response time for those requests is one of our internal key performance indicators (KPIs).

GRI 417-2: Incidents of non-compliance concerning product and service information and labeling

Our customer complaints management process handles complaints by recording the complaint, investigation, root cause and corrective action determination and implementation and communication with the customer. During the process complaints are classified with a complaint reason from a predefined list. The process and system in use can exclude those complaints that Kemira has met the agreed requirements with the customer. All complaints are actively monitored, evaluated and corrected as required by the quality management system in use at Kemira.

Non-compliance related to product and service information usually refers to insufficient information on the label.

During 2020, a total of 46 customer complaints were recorded relating to labeling or product information, of which 22 cases were in the EMEA region, 11 in the Americas, and 13 in the APAC region. All cases have been investigated and needed corrective actions have been implemented.

During 2020, no incidents of non-compliance with regulations resulting in any fine, penalty or warning were reported within Kemira's operations.

SOCIOECONOMIC COMPLIANCE

GRI 419-1: Non-compliance with laws and regulations in the social and economic area

We are not aware of any significant fine or non-monetary sanction for noncompliance with laws or regulations in the social and economic area in 2020.

GRI 417-1: Product and service information provided

TOPIC	PRODUCT AND SERVICE INFORMATION PROVIDED BY KEMIRA
The sourcing of components of the product or service	Only if requested by customers
Content, particularly with regard to substances that might produce an environmental or social impact	As required by law, always in SDS and on the labels. Additional information about chemicals in our products for voluntary certification/compliance schemes such as eco-labeling is also provided to customers upon request and when applicable
Safe use of the product or service	Safe use of a product or service is communicated in the SDSs and on the labels. Registered uses will be communicated via the extended SDSs. Additional information about the use, dosage and application is provided to customers when applicable
Disposal of the product and environmental/social impacts	When legally required, disposal of a product and environmental/social impact are communicated in the SDSs and on the labels

REPORTING PRACTICE

REPORTING SCOPE AND CONTENT

GRI 102-10: Significant changes to the organization and its supply chain
At the end of the year 2020, Kemira had 63 (64 in 2019) manufacturing sites of which 63 were included in the environmental reporting scope, and 63 in the auditing scope of our integrated management system. There were no significant changes in the company structure, size or ownership. Kemira offices and other non-manufacturing sites are not included in the environmental reporting, as they do not represent a material share of our environmental related processes.

GRI 102-46: defining report content and topic boundaries
When defining the relative importance of material topics for reporting purpose we have taken into account our economic, environmental and social impact, stakeholder expectations, our purpose and strategy, and our commitments to the Code of Conduct, United Nations Global Compact, SDGs and Responsible Care®. program. According to the GRI 101 Foundation standard, the principles for defining the report content were applied when assessing material topics and boundaries.

The most significant economic, environmental and social impacts
Economic impact: We generate revenue by selling chemical products and solutions for industrial uses in the pulp and paper, oil and gas, mining, and water treatment industries. We have a direct economic impact on suppliers and service providers through the payments we make for raw materials and services, to employees through compensation and benefits, to capital providers through dividends and interest payments, to the public sector through taxes, and to society through local community projects, sponsorship and donations. Unethical business behavior could impact Kemira's reputation and thus financial position.

Environmental impact: We have a positive environmental impact through our products and solutions which enable our customers to improve their water, energy and raw material efficiency. Our main environmental risks relate to carbon emissions from our own manufacturing and in the value chain due to our purchasing activities, upstream and downstream transportation, and to potential incidents through accidental release of chemicals or process safety deficiencies.

Social impact: Our main social impact, and related risks, concern safety in the workplace, safe use of our products along the value chain and any possible non-compliance with responsible business practices in our own operations or those of our business partners.

	INDIRECT IMPACT Production of input materials and energy	Upstream services	DIRECT IMPACT Kemira's own operations	INDIRECT IMPACT Downstream services	Use of Kemira products
ECONOMIC IMPACT	Anti-corruption Anti-competitive behavior	Anti-corruption Anti-competitive behavior	Sustainable products and solutions (own topic) Economic performance* Anti-corruption Anti-competitive behavior	Anti-corruption Anti-competitive behavior	
ENVIRONMENTAL IMPACT	Emissions (Scope 3) Supplier performance for their environmental impacts	Emissions (Scope 2 and Scope 3) Supplier performance for their environmental impacts	Materials Energy Water Emissions (Scope 1) Effluents and waste Environmental compliance	Emissions (Scope 3) Supplier performance for their environmental impacts	Emissions (Scope 3) Sustainable products and solutions (own topic)
SOCIAL IMPACT	Supplier performance for their social impacts and ethical business behavior	Supplier performance for their social impacts and ethical business behavior	Employment*, and Labor-Management relations* Occupational health and safety Training and education Diversity and equal opportunity Non-discrimination Freedom of association and collective bargaining Human rights assessment Public policy Customer health and safety Marketing & labelling Socioeconomic compliance	Supplier performance for their social impacts and ethical business behavior	

PRIORITIZATION PROCESS OF MATERIAL TOPICS

Identification

Material topics relevant to Kemira have been identified based on their relative magnitude of impact and respective concerns raised by our stakeholders. The most recent materiality assessment was done in 2016–2017. Representatives of our key stakeholder groups were interviewed to identify their expectations of Kemira, a benchmark study on material disclosure topics was carried out and major sustainability related development trends were analyzed.

Prioritization
The identified topics were prioritized with reference to the relative importance to stakeholders, and to the relevance to Kemira's business and strategy, as well as the significance of specific topics related to the global chemical sector. Based on the prioritization, we have selected GRI disclosure topics. In addition to these GRI topics we also disclose information and performance data on sustainable products and product stewardship, which is material but not covered by the GRI standards.

Validation
Data compilation practices for the identified material topics were reviewed and defined. Group level KPIs and targets are defined for the most material topics which are reported as Corporate sustainability priorities.

Review
Group level KPIs and targets for corporate sustainability priorities are approved and annually reviewed by the Management Board and by the Board of Directors.

GRI 102-47: List of material topics
GRI 103-1: Explanation of the material topic and its boundary

MATERIAL TOPICS	TOPIC BOUNDARIES	KEMIRA DATA COLLECTION PRACTICES
Sustainable products and solutions (own material topic)	Kemira operations[1]	Product applications are manually linked to product categories. Product sales data is extracted from Kemira's ERP system
Economic Standard Series		
Economic performance*	Kemira operations[1]	Data is extracted from Kemira's ERP system
Anti-corruption	Kemira operations[1]	Data is collected from each region, from Kemira's legal archive, and through notifications from Kemira's Compliance and Ethics Hotline.
Anti-competitive behavior	Kemira operations[1]	Data is collected from each region, from Kemira's legal archive, and through notifications from Kemira's Compliance and Ethics Hotline.
Environmental Standard Series		
Materials	Kemira operations as covered by our ERP[2]	Data is extracted from Kemira's ERP system.
Energy	Kemira manufacturing sites[3]	Data is collected from each production site and consolidated at the Group level.
Water	Kemira manufacturing sites[3]	Data is collected from each production site and consolidated at the Group level.
Emissions	Kemira manufacturing sites[3]	Data is collected from each production site and consolidated at the Group level. Scope 3 emissions data is collected from Kemira's ERP system and the relevant organizational units. Default data and assumptions are as in the WBCSD Guidance for Accounting & Reporting Corporate GHG Emissions in the Chemical Sector Value Chain.
Effluents and waste	Kemira manufacturing sites[3]	Data is collected from each production site and consolidated at the Group level.
Environmental compliance	Kemira manufacturing sites[3]	Data is collected from each production site and consolidated at the Group level.
Supplier environmental assessment	Kemira suppliers	Contract Management Tool used to track suppliers' signing of Code of Conduct for BP. Assessment data is stored on both external and internal service platform.
Social Standard Series		

Employment*	Kemira operations[1]	HR data management system.
Labor-Management relations*	Kemira operations[1]	Data is collected from each region and combined with the HR data management system.
Occupational health and safety	Kemira operations[1]	Synergy data management system. Data covers also contractors working at Kemira sites.
Training and education	Kemira operations[1]	HR data management system.
Diversity and equal opportunities	Kemira operations[1]	HR data management system.
Non-discrimination	Kemira operations[1]	Data is collected from each region, from Kemira's legal archive, and through notifications from Kemira's Compliance and Ethics Hotline.
Freedom of association and collective bargaining	Kemira operations[1]	Data is collected from each region, from Kemira's legal archive, and through notifications from Kemira's Compliance and Ethics Hotline.
Human rights assessment	Kemira operations[1]	A Human Rights Impact Assessment was conducted in 2014.
Supplier social assessment	Kemira suppliers	Contract Management Tool used to track suppliers' signing of Code of Conduct for BP. Assessment data is stored on both external and internal service platform.
Public policy	Kemira operations[1]	Data is collected from each region, from Kemira's legal archive, and through notifications from Kemira's Compliance and Ethics Hotline.
Customer health and safety	Kemira operations as covered by our ERP[2]	Data is extracted from Kemira's ERP system and from R&D New Product Development process documentation, and from Kemira's legal archives.
Marketing and labelling	Kemira operations as covered by our ERP[2]	Data is extracted from Kemira's ERP system and from PSRA[4] documentation, and from Kemira's legal archives.
Socioeconomic compliance	Kemira operations[1]	Data is collected from each region, from Kemira's legal archive, and through notifications from Kemira's Compliance and Ethics Hotline.

*) Not material GRI topic but reported because considered useful based on continuity.
1) Kemira's operations = All operations covered by Kemira's consolidation rules
2) Kemira's operations covered by ERP = All operations covered by both Kemira's consolidation rules and the company's Enterprise Resource Planning(ERP)
3) Kemira's manufacturing sites = All manufacturing sites covered by Kemira's consolidation rules.
4) PSRA Product Stewardship and Regulatory Affairs

GRI 102-48: Restatements of information

A few restatements of environmental data have been done due to correction or reclassification of data from some manufacturing sites (electricity sold off-site, water recycled, waste discharged) or review of assumptions of Scope 3 calculations (raw materials, upstream and downstream transportations).

GRI 102-49: Changes in reporting

There were no significant changes in the reporting.

REPORT PROFILE

GRI 102-50: Reporting period

The reporting period is from January 1 to December 31, 2020.

GRI 102-51: Date of most recent report

Kemira's most recent Annual Review including non-financial information (GRI disclosures) was published on February 19, 2021.

GRI 102-52: Reporting cycle

Kemira's Annual Review is published yearly, by calendar year. The Annual Review consists of Business Overview, Annex: GRI-report , Corporate Governance statement and Financial statements.

GRI 102-53: Contact point for questions regarding the report

The contact point for questions is Kemira Communications and Corporate Sustainability. Contact details are available at www.kemira.com.

GRI 102-54: Claims of reporting in accordance with the GRI standards

- The report is prepared in accordance with the GRI standards (2016): core option. However, the updated 2018 version of GRI 303: Water and Effluents has been applied.
- Communication on Progress (COP) of the United Nations Global Compact at Global Compact Active level by using the GRI-standards reporting principles.

ASSURANCE REPORT

GRI 102-56: External assurance

The corporate sustainability information presented in the Annual Report are externally assured by an independent third party. Information on the organization's policy and current practice with regard to external assurance can be found in the Assurance statement.

INDEPENDENT LIMITED ASSURANCE REPORT

To the Management of Kemira Oyj

Scope
We have been engaged by Kemira Oyj (hereafter Kemira) to perform a 'limited assurance engagement,' as defined by International Standards on Assurance Engagements, hereafter referred to as the engagement, to report on Kemira's Annual Review 2020 pages 15-27 and Annual Review Annex GRI Report (the "Subject Matter") for the period from 1.1.-31.12.2020.

Criteria applied by Kemira
In preparing the Annual Review 2020 and Annual Review Annex GRI Report, Kemira applied the Global Reporting Initiative Sustainability Reporting Standards and Kemira's own reporting principles (Criteria). Please note that such principles may not be suitable for another purpose.

Kemira's responsibilities
Kemira's management is responsible for selecting the Criteria, and for presenting the Annual Review 2020 and Annual Review Annex GRI Report in accordance with that Criteria, in all material respects. This responsibility includes establishing and maintaining internal controls, maintaining adequate records and making estimates that are relevant to the preparation of the subject matter, such that it is free from material misstatement, whether due to fraud or error.

EY's responsibilities
Our responsibility is to express a conclusion on the presentation of the Subject Matter based on the evidence we have obtained.

We conducted our engagement in accordance with the International Standard for Assurance Engagements Other Than Audits or Reviews of Historical Financial Information ('ISAE 3000'), and the terms of reference for this engagement as agreed with Kemira on 16.9.2020. Those standards require that we plan and perform our engagement to obtain limited assurance about whether, in all material respects, the Subject Matter is presented in accordance with the Criteria, and to issue a report. The nature, timing, and extent of the procedures selected depend on our judgment, including an assessment of the risk of material misstatement, whether due to fraud or error.

We believe that the evidence obtained is sufficient and appropriate to provide a basis for our limited assurance conclusions.

Our Independence and Quality Control

We have maintained our independence and confirm that we have met the requirements of the Code of Ethics for Professional Accountants issued by the International Ethics Standards Board for Accountants, and have the required competencies and experience to conduct this assurance engagement.

EY also applies International Standard on Quality Control 1, *Quality Control for Firms that Perform Audits and Reviews of Financial Statements, and Other Assurance and Related Services Engagements,* 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.

Description of procedures performed
Procedures performed in a limited assurance engagement vary in nature and timing from, and are less in extent than for a reasonable assurance engagement. Consequently, the level of assurance obtained in a limited assurance engagement is substantially lower than the assurance that would have been obtained had a reasonable assurance engagement been performed. Our procedures were designed to obtain a limited level of assurance on which to base our conclusion and do not provide all the evidence that would be required to provide a reasonable level of assurance.

Although we considered the effectiveness of management's internal controls when determining the nature and extent of our procedures, our assurance engagement was not designed to provide assurance on internal controls. Our procedures did not include testing controls or performing procedures relating to checking aggregation or calculation of data within IT systems.

A limited assurance engagement consists of making enquiries, primarily of persons responsible for preparing the Annual Review 2020 and Annual Review Annex GRI Report and related information, and applying analytical and other appropriate procedures.

Our procedures included:

a)   An update of our knowledge and understanding of Kemira's material sustainability reporting topics, organization and activities,

b)   An assessment of suitability and application of the reporting principles regarding the stakeholders' needs for information,

c)   Interviews with senior management to understand Kemira's corporate responsibility leadership,

d)   Interviews with personnel responsible for gathering and consolidation of the corporate responsibility information to understand the systems and processes related to gathering and consolidating the information,

e)   Assessing corporate responsibility data from internal and external sources and checking the data to reporting information on a sample basis,

f)   Performing recalculation of information and checking the underlying data on sample basis which is the basis of narrative disclosures related to the data

g)   Virtually visited Oulu and Marietta sites where we assessed reporting practices.

We also performed such other procedures as we considered necessary in the circumstances.

Conclusion

Based on our procedures and the evidence obtained, we are not aware of any material modifications that should be made to Annual Review 2020 and Annual Review Annex GRI Report for the period from 1.1-31.12.2020, in order for it to be in accordance with the Criteria.

Restricted use

This report is intended solely for the information and use of Kemira and is not intended to be and should not be used by anyone other than Kemira.

Ernst & Young Oy

15.2.2021
Helsinki

Mikko Rytilahti   Jani Alenius
Partner, Authorized Public Accountant   Leader of Climate Change and Sustainability Services, EY

GRI CONTENT INDEX

GRI 102-55

Abbreviations: AR= Annual Review   GRI=Annual Review Annex   CG = Corporate Governance   FS = Financial Statements

GRI STANDNARD	DISCLOSURE	PAGE NUMBER(S)	DOCUMENT	UNITED NATIONS GLOBAL COMPACT
GRI 101: Foundation 2016 General disclosures				
GRI 102: General disclosures 2016	Organizational profile			
	102-1 Name of the organization	p. 4	AR	
	102-2 Activities, brands, products, and services	p.4	AR	
	102-3 Location of headquarters	p.4	AR	
	102-4 Location of operations	p.4	AR	
	102-5 Ownership and legal form	p.11-14, 26	FS	
	102-6 Markets served	p.4	AR	
	102-7 Scale of the organization	p. 4	AR	
	102-8 Information on employees and other workers	p 27-28	AR	
	102-9 Supply chain	p. 11	GRI	Principle 8
	102-10 Significant changes to the organization and its supply chain	p.14	FS	
	102-11 Precautionary Principle or approach	n.a.		
	102-12 External initiatives	p.4	GRI	
	102-13 Membership of associations	n.a		
	Strategy			
	102-14 Statement from senior decision-maker	p.2-3	AR	Commitment to Global Compact
	102-15 Key impacts, risks, and opportunities	p. 14-18	FS	
	Ethics and integrity			
	102-16 Values, principles, standards, and norms of behavior	p.13	GRI	Principle 6, 8
	102-17 Mechanisms for advice and concerns about ethics	p. 13	GRI	Principle 1, 6, 8
	Governance			
	102-18 Governance structure	p.6	GRI	
	102-19 Delegating authority	p.7	GRI	
	Stakeholder engagement			
	102-40 List of stakeholder groups	p.5-6	GRI	
	102-41 Collective bargaining agreements	p. 37	GRI	Principle 3
	102-42 Identifying and selecting stakeholders	p.5-6	GRI	
	102-43 Approach to stakeholder engagement	p. 5-6	GRI	
	102-44 Key topics and concerns raised	p. 5-6	GRI	
	Reporting practice			
	102-45 Entities included in the consolidated financial statements	p. 27	FS	
	102-46 Defining report content and topic Boundaries	p. 39, 41-42	GRI	
	102-47 List of material topics	p. 41-42	GRI	
	102-48 Restatements of information	p. 42	GRI	
	102-49 Changes in reporting	p.42	GRI	
	102-50 Reporting period	p. 43	GRI	
	102-51 Date of most recent report	p. 43	GRI	
	102-52 Reporting cycle	p. 43	GRI	

	102-53 Contact point for questions regarding the report	p. 43	GRI	
	102-54 Claims of reporting in accordance with the GRI Standards	p. 43	GRI	
	102-55 GRI content index	p. 46-52	GRI	
	102-56 External assurance	p. 44-46	GRI	
Material Topics				
SUSTAINABLE PRODUCTS AND SOLUTIONS	**Own material topic**			
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its Boundary	p.41-42	GRI	
	103-2 The management approach and its components	p.8-10	GRI	
	103-3 Evaluation of the management approach	p.8-10	GRI	
Own KPI	Product sustainability	p.16	GRI	
Material Topics **GRI 200 Economic Standard Series**				
ECONOMIC PERFORMANCE				
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its Boundary	p.41-42	GRI	
	103-2 The management approach and its components	p.17	GRI	
	103-3 Evaluation of the management approach	p.17	GRI	
GRI 201: Economic Performance 2016	201-1 Direct economic value generated and distributed	p.17-18	GRI	
	201-3 Defined benefit plan obligations and other retirement plans	p.16-17	CG	
	201-4 Financial assistance received from government	n.a.		
ANTI-CORRUPTION				
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its Boundary	p. 41-42	GRI	
	103-2 The management approach and its components	p.14-15	GRI	
	103-3 Evaluation of the management approach	p.14-15	GRI	
GRI 205: Anti-corruption 2016	205-1 Operations assessed for risks related to corruption	p.14-15	GRI	Principle 10
	205-2 Communication and training about anti-corruption policies and procedures	p.14-15	GRI	Principle 10
	205-3 Confirmed incidents of corruption and actions taken	p.14-15	GRI	Principle 10
ANTI-COMPETITIVE BEHAVIOR				
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its Boundary	p.41-42	GRI	
	103-2 The management approach and its components	p.16	GRI	
	103-3 Evaluation of the management approach	p.16	GRI	
GRI 206: Anti-competitive Behavior 2016	206-1 Legal actions for anti-competitive behavior, anti-trust, and monopoly practices	p.16	GRI	
GRI 300 Environmental Standards Series				
MATERIALS				
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its Boundary	p.41-42	GRI	

	103-2 The management approach and its components	p.18	GRI	
	103-3 Evaluation of the management approach	p.18	GRI	
GRI 301: Materials 2016	301-1 Materials used by weight or volume	p.18	GRI	
	301-2 Recycled input materials used	p.18	GRI	Principle 7, 8
ENERGY				
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its Boundary	p.41-42	GRI	
	103-2 The management approach and its components	p.18-20	GRI	
	103-3 Evaluation of the management approach	p.18-20	GRI	
GRI 302: Energy 2016	302-1 Energy consumption within the organization	p.18-20	GRI	Principle 7, 8
	302-3 Energy intensity	p.18-20	GRI	Principle 8
	302-4 Reduction of energy consumption	p.18-20	GRI	Principle 8, 9
WATER				
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its Boundary	p.41-42	GRI	
	103-2 The management approach and its components	p.23-25	GRI	
	103-3 Evaluation of the management approach	p.23-25	GRI	
GRI 303: Water 2018	303-1 Interactions with water as a shared resource	p.23-25	GRI	Principle 7,8
	303-2 Management of water discharge-related impacts	p.23-25	GRI	
	303-3 Water withdrawal	p.23-25	GRI	Principle 7,8
	303-4 Water discharge	p.23-25	GRI	Principle 7,8
	303-5 Water consumption	p.23-25	GRI	Principle 8
EMISSIONS				
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its Boundary	p.41-42	GRI	
	103-2 The management approach and its components	p.20-23	GRI	
	103-3 Evaluation of the management approach	p.20-23	GRI	
GRI 305: Emissions 2016	305-1 Direct (Scope 1) GHG emissions	p.20-23	GRI	Principle 7,8
	305-2 Energy indirect (Scope 2) GHG emissions	p.20-23	GRI	Principle 7,8
	305-3 Other indirect (Scope 3) GHG emissions	p.20-23	GRI	Principle 7,8
	305-4 GHG emissions intensity	p.20-23	GRI	Principle 8
	305-5 Reduction of GHG emissions	p.20-23	GRI	Principle 8, 9
	305-6 Emissions of ozone-depleting substances (ODS)	p.20-23	GRI	Principle 7,8
	305-7 Nitrogen oxides (NOX), sulfur oxides (SOX), and other significant air emissions	p.20-23	GRI	Principle 7,8
EFFLUENTS AND WASTE				
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its Boundary	p.41-42	GRI	
	103-2 The management approach and its components	p. 25-27	GRI	
	103-3 Evaluation of the management approach	p.25-27	GRI	
GRI 306: Effluents and Waste 2016	306-1 Water discharge by quality and destination	p.25-27	GRI	
	306-2 Waste by type and disposal method	p.25-27	GRI	

	306-3 Significant spills	p.25-27	GRI	
	306-4 Transport of hazardous waste	p.25-27	GRI	
ENVIRONMENTAL COMPLIANCE				
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its Boundary	p.41-42	GRI	
	103-2 The management approach and its components	p.27	GRI	
	103-3 Evaluation of the management approach	p.27	GRI	
GRI 307: Environmental Compliance 2016	307-1 Non-compliance with environmental laws and regulations	p.27	GRI	Principle 8
SUPPLIER ENVIRONMENTAL ASSESSMENT				
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its Boundary	p.41-42	GRI	
	103-2 The management approach and its components	p.12	GRI	
	103-3 Evaluation of the management approach	p.12	GRI	
GRI 308: Supplier Environmental Assessment 2016	308-1 New suppliers that were screened using environmental criteria	p.12	GRI	Principle 8
GRI 400 Social Standards Series				
EMPLOYMENT				
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its Boundary	p.41-42	GRI	
	103-2 The management approach and its components	p.29	GRI	
	103-3 Evaluation of the management approach	p.29	GRI	
GRI 401: Employment 2016	401-1 New employee hires and employee turnover	p.29	GRI	Principle 6
	GRI 401-2: Benefits provided to full-time employees that are not provided to temporary or part-time employees	p.29	GRI	
LABOR-MANAGEMENT RELATIONS				
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its Boundary	p.41-42	GRI	
	103-2 The management approach and its components	p.29	GRI	
	103-3 Evaluation of the management approach	p.29	GRI	
GRI 402: Labor/Management Relations 2016	402-1 Minimum notice periods regarding operational changes	p.29	GRI	Principle 3
OCCUPATIONAL HEALTH AND SAFETY				
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its Boundary	p.41-42	GRI	
	103-2 The management approach and its components	p.30-33	GRI	
	103-3 Evaluation of the management approach	p.30-33	GRI	
GRI 403: Occupational Health and Safety 2016	403-2 Types of injury and rates of injury, occupational diseases, lost days, and absenteeism, and number of work-related fatalities	p.30-33	GRI	
TRAINING AND EDUCATION				
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its Boundary	p.41-42	GRI	

	103-2 The management approach and its components	p.33-35	GRI	
	103-3 Evaluation of the management approach	p.33-35	GRI	
GRI 404: Training and Education 2016	404-1 Average hours of training per year per employee	p.33-35	GRI	Principle 6
	404-2 Programs for upgrading employee skills and transition assistance programs	p.33-35	GRI	
	404-3 Percentage of employees receiving regular performance and career development reviews	p.33-35	GRI	Principle 6
DIVERSITY AND EQUAL OPPORTUNITY				
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its Boundary	p.41-42	GRI	
	103-2 The management approach and its components	p. 35-36	GRI	
	103-3 Evaluation of the management approach	p.35-36	GRI	
GRI 405: diversity and Equal Opportunity 2016	405-1 Diversity of governance bodies and employees	p.35-36	GRI	Principle 6
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