



ESG report 2021

Reducing emissions towards net zero while growing supplies to the green transition

Elkem's ESG agenda

Key targets and highlights from 2021

22%

biocarbon sources in production

3.7

total recordable injury rate

>80%

of production use renewable energy

78%

had an annual development discussion

Elkem is one of the world's leading suppliers of silicon-based advanced material solutions shaping a better and more sustainable future. The company develops silicones, silicon products and carbon solutions by combining natural raw materials, renewable energy, and human ingenuity. Elkem helps its customers create and improve essential innovations like electric mobility, digital communications, health, and personal care as well as smarter and more sustainable cities.

At the core of Elkem is people and safe sustainable operations conducted responsibly and with excellence. Elkem shall be an attractive employer and at the forefront of environmentally friendly operations within our industry.



Announcements and events

- Elkem established Vianode as a new company and opened the pilot plant in Kristiansand, Norway dedicated to strategic growth opportunities for advanced battery materials
- Strategic expansion of NOK 3,8 billion at Xinghuo plant, China announced, for increased growth, strengthened cost position and improved environmental profile
- Opening of Elkem's state-of-the-art research and innovation center, ATRIION, in Lyon, France
- Elkem invested NOK 350 million to upgrade and expand cost competitive and sustainable production of silicones at Roussillon, France
- Elkem launched a global climate roadmap to reduce emissions towards net zero while growing supplies to the green transition

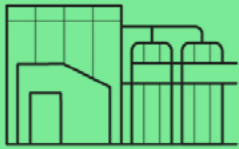
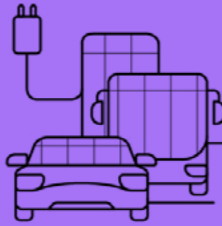

- Elkem announced the testing of the world's first carbon capture pilot for smelters in Rana, Norway
- Elkem published its first TCFD climate risk report
- Elkem's and Kvitbjorn Energi's NOK 1.2 billion energy recovery plant opened in Salten, Norway by Norwegian prime minister
- Elkem received the highest recognition, Platinum, for sustainability transparency from EcoVadis, for the first time



The Elkem climate roadmap

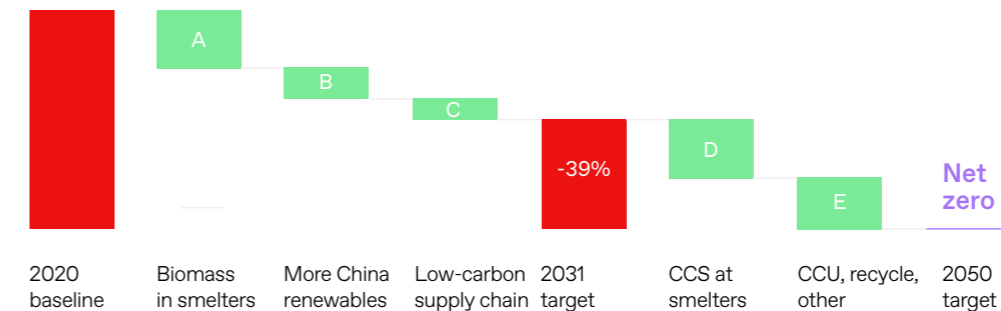
Elkem is committed to reduce emissions and to contribute in line with the Paris agreement

The three pillars of the climate roadmap

 <p>Reducing our emissions</p> <p>Achieving fully climate neutral production throughout our value chain</p> <p>By 2031: Reducing absolute emissions by 28% from 2020-2031 while growing the business - delivering 39% improvement in product footprint</p> <p>By 2050: Achieving fully carbon neutral production (zero fossil emissions) globally</p> <p>More information on page 96</p>	 <p>Supply to the transition</p> <p>Providing the advanced material solutions required to enable the green transition</p> <p>Grow supplies of advanced materials to green markets such as better buildings, electric vehicles and renewable energy</p> <p>Build new business in green markets such as battery materials, biomass and energy recovery</p> <p>More information on page 80</p>	 <p>Enable circular economics</p> <p>Enabling more circular activities in our operations, products and markets</p> <p>Increase recycling in our own operations</p> <p>Increase recycling with our customers</p> <p>Develop the eco-design of innovative products</p> <p>More information on page 82</p>
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To manage climate change, it is important to understand the company's climate risk. Elkem has implemented the climate risk framework Taskforce on Climate-related Financial Disclosures (TCFD) in 2021, and published the first report in December 2021. In the report, you can read how Elkem works on governance, strategy, risk management and monitors targets and metrics. [Take a look ↗](#)

Our roadmap to climate neutral products



Elkem will reduce fossil CO₂ emissions in line with the Paris agreement, contributing to limit the long-term temperature increase to well below 2°C.

- By 2031, we will:
- Reduce absolute emissions* by 28% - baseline 2020
 - Delivering 39% improvement in product footprint**
 - By 2050: Achieve full carbon-neutral production (zero fossil emissions) globally.

* Total global fossil CO₂ emissions, scope 1 and 2
 ** Main product average fossil CO₂ emissions, scope 1-3 (to gate).

[A more detailed version can be found on our website ↗](#)

Our sustainability action:

Supplying the green transition

All the known technological solutions for the green transition requires advanced materials, and silicones, silicon and carbon solutions are critical enablers. This is one of the most significant ways for Elkem to have an impact; by supplying the green transition towards a low carbon future. Therefore, one of the three pillars of the Elkem climate roadmap is to grow the market share in the green transition. The demand for Elkem's products is driven by global megatrends such as sustainability and clean energy demand growth, e.g. solutions for the electrification of transportation, increased energy storage and batteries, reducing emissions and energy consumption, and the replacement of oil-based materials. Elkem aims to continue growing our supplies of advanced materials to global markets by 5-10% per year.

The table below has identified some of the areas where Elkem provides product that abates or reduces emissions, enhances energy efficiency or other applications that enables the green transition. In 2022, we will determine further how eligible and aligned Elkem is with the criteria for the EU Taxonomy.

In 2021, 26% of Elkem's revenue came from products used in low-carbon applications or abated emissions in use.

Enabling the electrical mobility

Vianode is a new company that Elkem established in 2021. The company is dedicated to strategic growth opportunities for advanced battery materials. It aims to become a leading provider of anode materials' solutions to the fast-growing battery industry with the production of synthetic graphite.

The synthetic graphite business case: Reducing emissions by ~94% to near zero and making better battery materials with:

- Highly innovative clean processing technology and renewable power mix
- Advancing research on silicon-graphite composites for higher energy density
- Collaborative efforts to develop effective and efficient battery materials recycling.

Supplying medical solutions in a sustainable world

Providing top quality and long-lasting solutions to healthcare products will be increasingly important in a low-carbon world.

Medical professionals require equipment and devices that withstand the harsh realities of their environment, including the extreme conditions of sterilisation processes. Medical-grade silicones are

Product group	Unit	Total	Silicone and silicones to solar panels	Foundry products to wind turbines	Silicones to EVs	Silicones to constructions	Carbon to aluminium	Silicones to aluminium to cars	Carbon to silicon	Microsilica to construction
Revenue share	%	26%	1.1%	0.9%	2.5%	15%	1.7%	3.1%	0.4%	1.2%



15%

anode graphite in battery cell

≈ 50%

annual growth expected for EVs

4 x more

silicone products in EVs compared to ICEVs

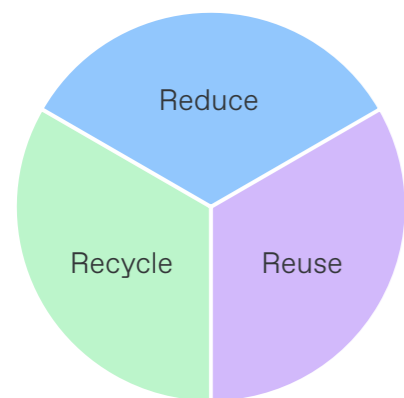
used widely in healthcare applications for their excellent biocompatibility, extreme chemical inertness, hypo-allergenicity, highly adapted physical properties and durability in a wide range of environmental conditions. The Si-O-Si bonds that make up silicone's chemical backbone are extremely strong, resulting in the material's high durability levels. Partners who serve the healthcare sector use a wide range of silicone products to make medical parts and devices supporting caregivers and patients in the operating room. Additional benefits of silicones are their ability to be sterilised with a variety of methods, their lubricating properties, and their resistance to bacteria.

Compared to other carbon-based materials, silicones are more durable and provoke less skin irritation, meaning a longer life span of silicone products and lower replacement rates, therefore contributing to our 3R* approach (*recycle, reduce, reuse). For instance, manufacturers of prosthetics devices choose silicones for their mechanical properties and comfort for end-users. In addition, silicones' good durability means it lasts longer, can be washed and reused over a longer period of time, reducing waste and improving the usability of such key devices for the patients.

Here is how silicones help patients with Covid-19 ↗



Circular economy



To succeed with the Elkem climate roadmap [↗](#), the company needs to enable and create circular economies.

To Elkem, circular economy "consists in producing goods and services in a sustainable way by limiting the excessive consumption of resources and the production of waste. It is about moving from a throwaway society to a more circular economic model".

The circular economy is an economic model that aims at generating sustainable and local activities and employment. While in nature, everything works in a more circular way (food chain, the waste of some is the resources of others), we have dissociated ourselves from this model with the rise of a "consumer society" in the early 20th century. Thus, leading to a linear model: extract, manufacture, consume, dispose. The circular economy is built in opposition to this model. Its fundamental principles are preserving resources, environment, and health, allowing the economic and industrial development of territories, and reducing waste.

At Elkem, the objective is to increase circularity. Through close partnerships with customers and research Elkem's goal is to standardise a 3R approach, based on **reuse, reduce, and recycle**.

- **Reduce:** We reduce our environmental impact by designing products that use fewer fossil resources, are manufactured with less energy-intensive processes or through longer life to reduce the need to replace
- **Reuse:** We reuse or repurpose substances, materials, or products in and from our production or commercial cycles that are still functional
- **Recycle:** We manage our waste and the end-of-life of our products to transform them into raw materials for new products.

Some examples that illustrate Elkem's commitment

REDUCE – ELSEAL® Type G

New product makes aluminium production greener and safer by removing harmful exposure to carcinogenic PAH (polycyclic aromatic hydrocarbon) compounds (classified as a health hazard and comply with the handling of waste material).

- No PAH nor other hazardous substances
- No emissions of PAH during use and workers will not be exposed to these potentially harmful compounds
- Proven performance under challenging electrolysis conditions where the combination of high temperature and corrosive bath is a tough environment
- Odourless, easy to handle, improved storage stability and does not form any harmful waste.

REUSE – Microsilica®

From discarded by-products to high-performance material

- Silica fume is a discarded by-product of the production of silicon or ferro-silicon
- Considered as a key ingredient in many construction materials to achieve high-performance rheology, strength and durability
- Building companies are saving on cement and water.

RECYCLE – REPOS

(REssourcement POLymères Silicones)

A collaborative project with an objective to reduce waste and develop a circular economy approach of silicones

- Setting up a value chain around the recycling of silicone products, revolving around the treatment of waste and internal downgraded products
- A 3-year-long local collaborative project reuniting members of the LPSE (Lyon Polymer Science and Engineering) setting up a flexible, selective, and productive unit at low temperature for depolymerisation of silicone materials
- A reduction of more than 65% of waste and carbon footprint is estimated on preliminary studied perimeter.

Four examples of our work:

Eco-design

80% of a product's environmental impact is determined at the design stage. Eco-design reduces the amount of material and energy used.

Chemical recycling

a project focused on recovering and recycling silicones in all physical forms, reducing the carbon footprint up to 65%.

Reprocessing

Mix & Fix™ Center centres are set up to analyse customer samples to see if they are reusable or can be reprocessed.

Eco-forward silicones

We develop personal care products with sustainable and eco-friendly raw materials – like PURESIL™ ORG 01.

ESG reporting and governance

Elkem aims to be a leading company in the transition towards a climate-friendly materials industry. Our mission is to offer advanced material solutions that shape a better and more sustainable future. We have a clear company strategy to strengthen our competitive position through specialisation and growth. Environmental, social and governance (ESG) represent a significant part of our strategy. We believe that safe and environmentally friendly production will be even more critical in the future, and that together with our customers and partners we can create tomorrow's solutions.

Elkem is committed to develop its business in accordance with the UN Sustainable Development Goals and the Paris agreement. This is an important commitment to society at large; we will develop products needed for the green transition, and minimising the negative environmental and social impact of these products.

The world needs organisations, such as Elkem, to take responsibility for their value chain and eliminate/reduce their total carbon footprint to succeed in the transition towards a greener and more just society. Materials should be recyclable, long-lasting, and produced with low greenhouse gas (GHG) emissions. Materials should also be produced responsibly and ethically. To achieve this, society needs more innovative and efficient solutions. The increasing demand for low-carbon technologies and products such as solar panels, batteries and electric vehicles are impacting and increasing the demand for several of Elkem's product segments within silicones, silicon and ferroalloys. Elkem's products are building blocks for the low-carbon society and are critical for the green transition, examples include renewable energy, energy storage, mobility solutions, infrastructure improvements, digitalisation, and healthcare. Our ambition is to cut GHG emissions, while accelerating the development of sustainable solutions through growth. To support this ambitious goal, Elkem launched a global climate roadmap in 2021 to reduce the company's net emissions to zero by 2050.

ECOVADIS: Platinum

Top 1% performer on sustainability transparency.

CDP: Leadership A-

In 2021, CDP granted Elkem an A- on Climate disclosure and B- on Water disclosure.

ESG 100 A-

Rating published by the Governance Group: A score shows excellent ESG reporting with a clear strategy and specific, quantifiable targets.

Sustainability reporting

About this report

The annual ESG report is part of Elkem's annual report and has been approved by the board of directors. The ESG report also functions as a stand-alone report. If you want to learn more about Elkem's business areas and strategy, you can find this information on pages 18-25. [↗](#)

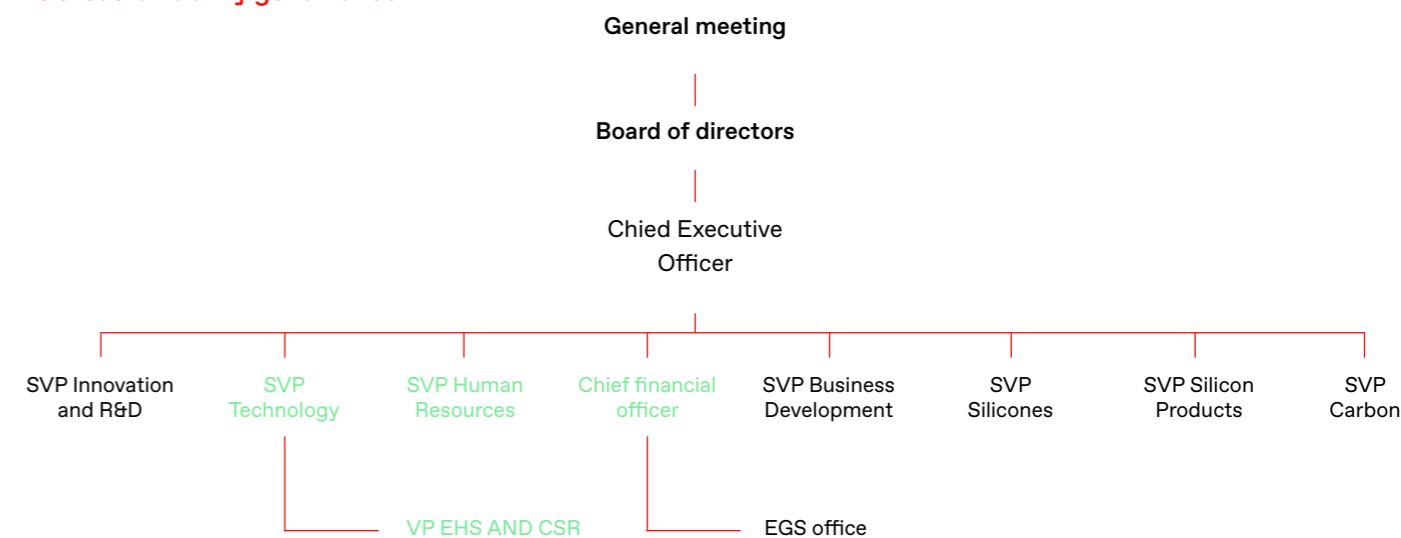
Reporting framework

Elkem reports in accordance with the Global Reporting Initiative (GRI) Standards (Core option) and consider this report to be our Communication of Progress (COP) to the United Nations Global Compact (UNGC).

Elkem discloses information through several reporting systems to increase transparency and ensure standardised reporting. In the last years, the company has focused its efforts on the business sustainability rating, EcoVadis, and the environmental disclosure system, Carbon Disclosure Project (CDP). In 2021, Elkem, for the first time, implemented and reported according to the recommendations from the Taskforce on Climate-related Financial Disclosures (TCFD).

PWC has undertaken a limited assurance on the ESG reports alignment with the GRI Standard. [↗](#) The GRI index can be found online and more information about the limited assurance can be found in the assurance statement. [↗](#)

ESG/sustainability governance



* functions marked in green are members of the ESG steering committee

ESG and sustainability are integrated into Elkem's overall business strategy, and the responsibility sits with the collective board. ESG-related risks and opportunities are also part of board meeting agendas. The board follows up and reviews the group's ESG strategy on an annual basis as part of the regular strategy process. In addition, the board of directors receives information about the company's ESG performance and projects through regular reporting and board meetings.

The Chief Financial Officer (CFO) is the most senior management position responsible for ESG related topics. The CFO is responsible for managing the ESG steering committee, the corporate body responsible for ESG, which consists of members from the corporate management. The ESG Steering Committee reports to the Chief Executive Officer (CEO).

Elkem's business strategy and corporate governance policy are approved by the board of directors and provide the overall framework for the group's strategic direction and governance structure. In addition, the corporate management team or the ESG steering committee will typically approve other policies and procedures.

Elkem adheres to the principles of "the Norwegian Code of Practice for Corporate Governance" issued by the Norwegian Corporate Governance Board ("NUES" or the "Code"). The objective of this Code is that companies listed on regulated markets in Norway will practice

corporate governance that regulates the division of roles between shareholders, the board of directors and executive management more comprehensively than is required by legislation.

Further information about our corporate governance can be found in the board of directors' report on corporate governance in the annual report. [↗](#)

Elkem has dedicated governing documents and several tools to ensure that our organisation understands our priorities and requirements in the areas of sustainability and social responsibility. For example, the Elkem code of conduct was developed to ensure that any person acting on Elkem's behalf does so ethically and according to the standards specified in Elkem's employee handbook. It applies to all Elkem employees. The code of conduct is based on the principles of honesty and respect for other people. The code of conduct is available online here. [↗](#)

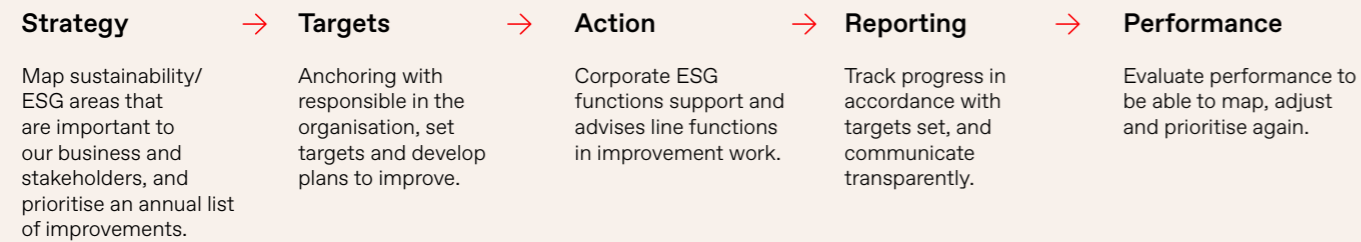
Remuneration

The CEO and corporate management have performance-based compensation based on defined metrics. The metrics are defined according to areas of responsibility. The performance related incentives are limited to 100% of base salary for CEO and 50% of base salary for the corporate management. If the company becomes aware of serious wrongdoing or misconduct, clawback is possible under certain conditions. The clawback provision has been implemented for 2022.

Our approach to working on ESG

The ESG office reports to the ESG steering committee and collaborates closely with business units and divisions, to review and address relevant sustainability and ESG issues. As part of the Elkem Business

System (EBS), it is our philosophy and belief that what gets measured gets managed. An essential part of this work is to advise on and improve key performance indicators that is reviewed by corporate management.



The metrics for the CEO for 2021 include:

- Health and safety performance with target of zero high severity (life changing) incidents
- Environmental performance target of zero major environmental cases
- Environmental, Social and Governance (ESG) performance based on improved ratings from defined ESG rating agencies.

Evaluating ESG and climate-related risks and opportunities has become an increasingly important part of Elkem's overall risk management processes. These factors impact strategy, financial conditions, and all aspects of Elkem's value chain, from raw materials to finished products. In 2021, we matured our climate-related risk process by adopting the Task Force on Climate-related Financial Disclosures. We will report according to this new framework annually.

The management bonuses for 2021 was linked to ESG-related criteria focusing on compliance and sustainability. Criteria include employees' completion of compliance training in order to drive and further develop good compliance culture and no substantiated misconduct cases. Also criteria linked to ESG performance, based on ratings, embracing a wide range of climate and environment-, health and safety-, sustainability- and social targets were included in the corporate management individual targets. Targets related to the climate roadmap are under development for 2022 and beyond.

Elkem conducts a yearly risk mapping process based on interviews with divisions and corporate staff. The purpose is to understand the group's risk profile thoroughly. Each risk is evaluated based on internal and external conditions and takes deemed likelihood, estimated financial impact, time horizon and mitigating activities into consideration.

Materiality assessment changes

In 2020, Elkem conducted a comprehensive analysis with external and internal stakeholders that are either impacted by the company's operations, or whom, in different ways, have an impact on the company. The stakeholder engagement process and materiality assessment were done in alignment with Global Reporting Initiative (GRI) framework and was conducted by third-party advisors to ensure objectivity during the analyses. The results from the stakeholder dialogue have given Elkem valuable insight into which economic, social, governance and environmental topics that we impact through our operations and should be prioritised based on stakeholder importance.

Risk management and materiality assessment

Risk management process

The board of directors has the ultimate responsibility to ensure that Elkem has appropriate risk management systems that reflect the extent and nature of the group's activities and value chain impact.

The board and management consider risk management a key part of Elkem's corporate governance structure, which is important to create trust and to enhance value creation. This includes ESG and climate-related issues.

During the fall of 2021, GRI Standards updated their international standards and recommendations for pursuing materiality analyses. Elkem implemented

the updated GRI Standards based on the materiality assessment from 2020 and the process for identifying ESG risks in the value chain in 2021.

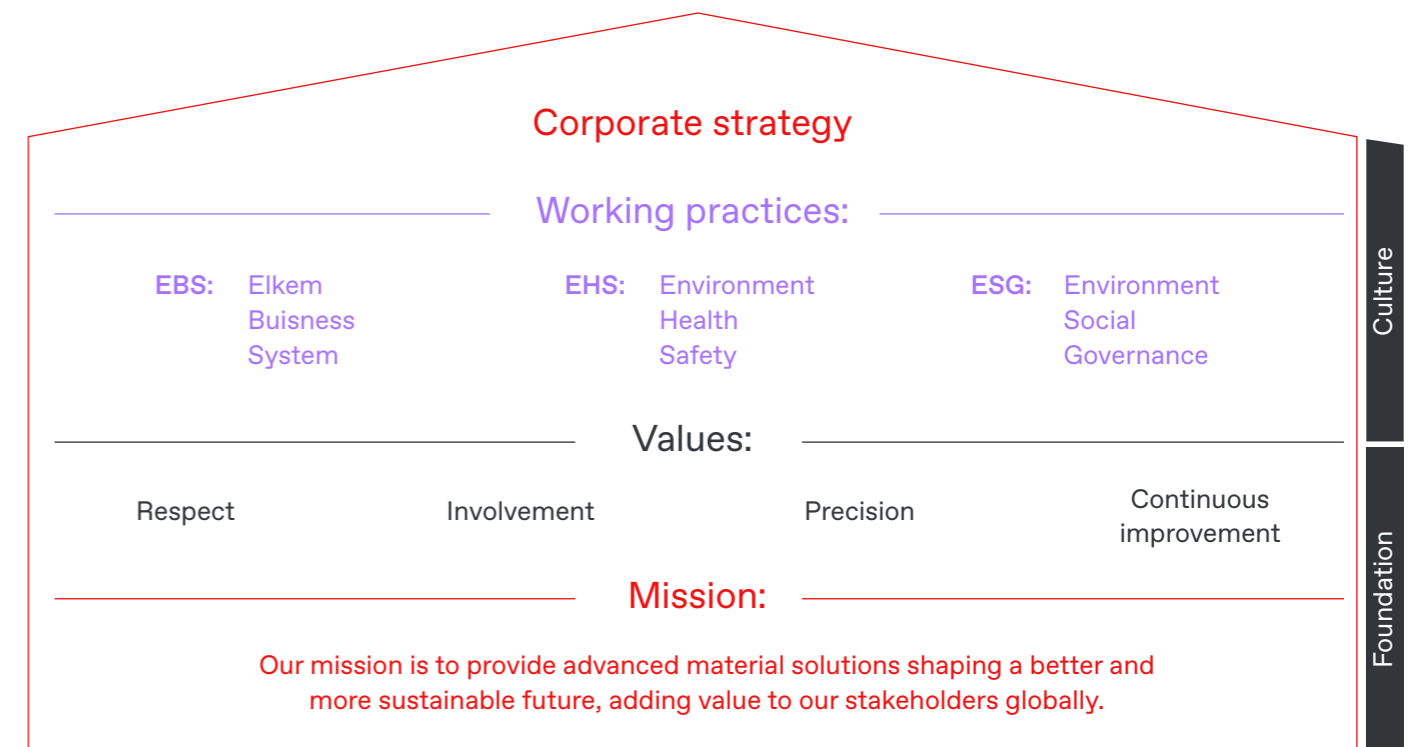
The steps to further identify material topics followed the recommended steps provided by GRI:

1. Understand Elkem's sustainability contexts
2. Identify actual and potential impacts
3. Assess the significance of the impacts
4. Prioritise the most significant impacts.

Elkem considers the sustainability through specifically the business model, sector and the nature of its impacts, geographic areas, and cultural and legal operating context. Actual and potential negative impacts were identified during the risk assessment based on Elkem's value chain from raw materials extraction, production and processes to the market and end products in each division. During the fall of 2021, Elkem assessed and

prioritised the positive and negative impacts in the value chain, along with evaluating human rights due diligence. The assessment was conducted by a third-party interviewing chosen key internal personnel who are experts in their own division's value chain focusing on scale, scope, and likelihood.

Based on Elkem's defined focus and impact on human rights, product governance, including chemical stewardship and supplying the green transition, the reviewed material topics for 2021 evolved from 2020. The material topics and their impacts also represent financial risks and opportunities. Moving forward in 2022, updating and reviewing the materiality assessment will be an extension of the ongoing risk management process. The dynamic material topics and their impact will be continuously evaluated by the ESG steering committee and approved by the board of Elkem annually.



The Elkem house

The Elkem house illustrates the building blocks of Elkem's business model. Our mission and values represent the foundation to support our working practices and represent our culture and how we work. Our mission, values, and working practices are interlinked and support our corporate strategy.

Topics with most positive and negative impacts in Elkem's value chain

Dynamic materiality/important topics:

Anti-competitive
 Anti-corruption
 Biodiversity
 Diversity and equality
 Emergency preparedness
 Energy management
 End product usage
 Governance
 Job creation and retention
 Public policy and lobbying
 Security and data privacy
 Stakeholder relations
 Sustainable product innovation
 Training and development

Material topics in 2021:

CO₂ and other emissions to air
 Health and safety
 Human rights
 Product governance, incl. chemical safety
 Responsible value chain / supply chain management
 Supplying the green transition
 Waste management and circularity
 Water management




Elkem's contribution and impact on the UN 2030 Agenda



The UN Sustainable Development Goals (SDGs) were established in 2015 by the United Nations' to build a more sustainable and equal world by 2030.

The 2030 Agenda acknowledges that the 17 goals cannot be reached without the active support of businesses worldwide. It calls on companies to use innovation, technology, and creativity to address developmental challenges and opportunities. Elkem supports the 2030 Agenda, as a signatory to the UN Global Compact.

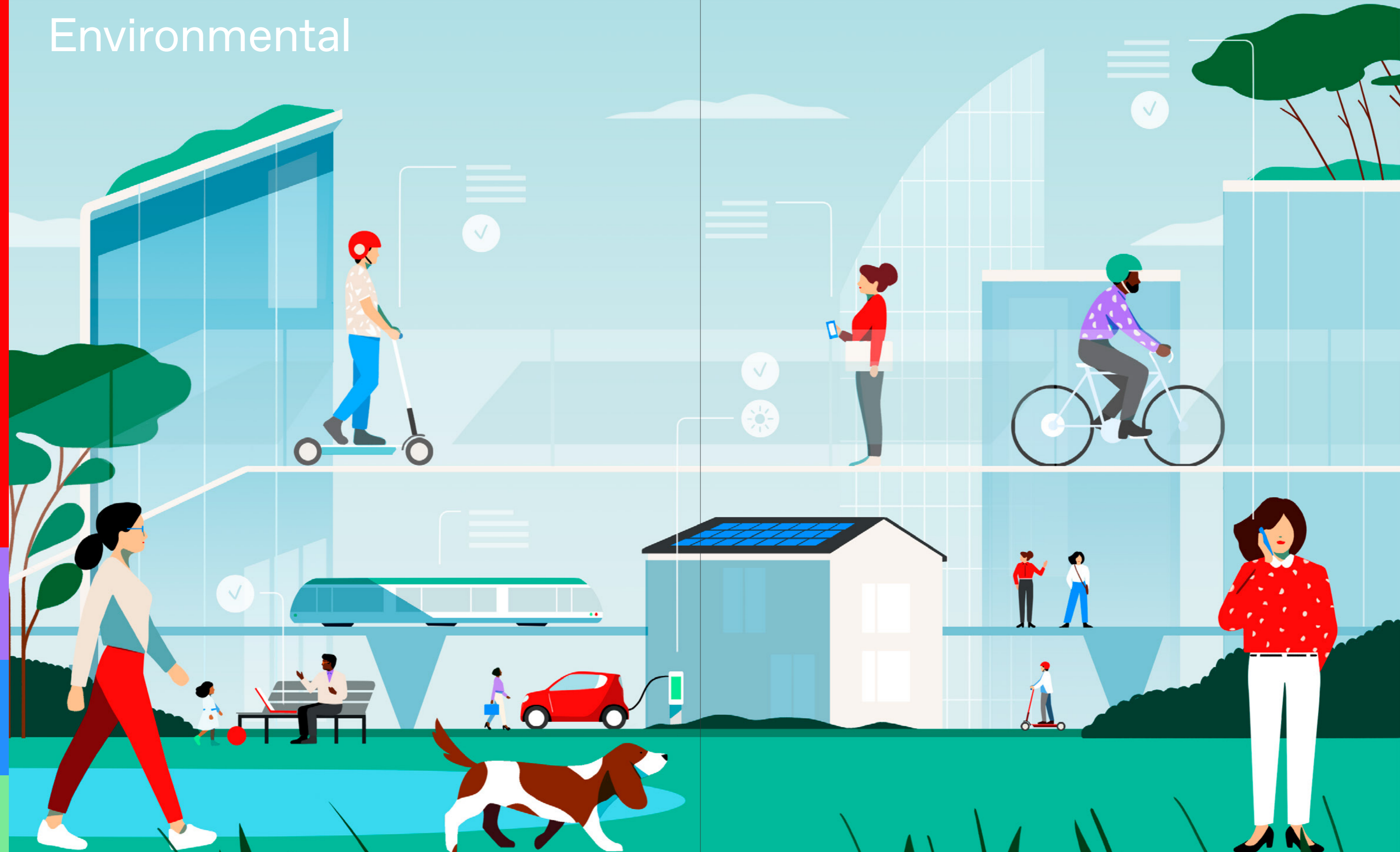
Elkem updated the materiality assessment for the company in 2020. In that process, the materiality was linked to how we are impacted by and can impact the UN SDGs. Although we understand that all goals are interlinked, and work to promote all 17 SDGs, Elkem has identified three SDGs that are most material and where we can contribute the most.

How Elkem supports the SDGs ↗

SDG	Impact assessment	The UN SDG impact report 2021: Prioritised SDG sub-targets	
	<p>Elkem's first priority is to create a safe and zero harm workplace. We continuously work to protect our workers' labour and human rights and promote a safe and secure working environment. Elkem is committed to doing business according to the UN Guiding Principles on Business and Human Rights.</p> <p>Our impact: Elkem provides a secure and safe workday for employees and contractors. It is Elkem's obligation to provide safe jobs and make sure that the employees have decent and liveable wages and a flexible work-life balance situation. In addition, we can influence the value chain through our partnerships, to make sure that our suppliers and customer also take this responsibility. Our most important tool is the code of conduct for business partners.</p> <p>Impacted: Elkem operates in several countries which are at risk of child labour and forced labour. Elkem does not tolerate any use of children or forced labour in any of our operations or facilities. We expect the same from our suppliers and others we do business with. While Elkem as a company cannot resolve all such issues in isolation, we have a responsibility to identify human rights risks in our value chains and mitigate them to the best of our ability.</p>	<p>Target 8.7: Take immediate and effective measures to secure the prohibition and elimination of the worst forms of child labour eradicate forced labour, and by 2025 end child labour in all its forms including recruitment and use of child soldiers.</p>	<p>No reported events of child and forced labour in Elkem. One reported concern in supply chain.</p>
		<p>Target 8.8: Protect labour rights and promote safe and secure working environments for all workers.</p>	<p>No reported high severity injury. Injury rate: 3.7, up from 2.3 in 2020. Introduced human rights e-learning for all. Employees covered by collective bargaining agreements: 39%</p>

SDG	Impact assessment	The UN SDG impact report 2021: By prioritised SDG sub-targets	
	<p>An improved understanding of the environmental and social impacts of products and services is key to ensure sustainable value chain for the future. Therefore, strong environmental management of chemical safety, air, and water emission, and minimising the environmental footprint are key priorities.</p> <p>Our impact: Our products and production have an environmental footprint throughout the value chain. Elimination of waste is one of the key strategies for successful operations. Our environment, health, and safety (EHS) policy cover actions on energy and resource utilisation, environmental impact through emission to air and discharge to water and waste reduction and waste management. Our goal is to reduce the generation of waste by good process control.</p> <p>Circularity is becoming more and more critical throughout our value chain. Elkem is working with customers and researchers across: reduce, reuse, recycle and renewable. For example, increase the use of recycled raw materials in our operations by collecting them, reintroducing them, and valuing by-products (i.e. Elkem Microsilica ®). By joining forces with our customers, we aim to increase the collection of end-of-life products to recycle them chemically or mechanically.</p> <p>Impacted: There is an increased focus on environmental and climate-friendly production from society, employees and investors. In addition, operations are subject to environmental permits and the risk of stricter permits from governments and/or other policy changes require our attention to ensure compliance and successful transition.</p>	<p>Target 12.4: By 2020, achieve environmentally sounds management of chemicals and all wastes throughout their life cycle in accordance with agreed international framework and significantly reduce their release to air, water and soil to minimise their adverse impact on human health and the environment.</p>	<p>Have fully implemented environment management system in the organisation, with digital, quarterly reporting. Total waste generated: 397,247 tonnes Information on emissions, see page 101. No significant spills of D4/D5 CDP Water disclosure: B-</p>
		<p>Target 12.5: By 2030, substantially reduce waste generation through prevention, reduction, recycling and reuse.</p>	<p>Total waste diverted from disposal: 276,483 tonnes Share of process waste that was reused or recycled: 70%</p>
	<p>Climate change mitigation exposes Elkem to several challenges and opportunities. Climate change response and transitioning to more sustainable solutions will impact our business and financial conditions as we advance.</p> <p>Elkem published the first climate risk report according to the TCFD recommendations in 2021, and you can find the full report here ↗</p> <p>Our impact: Greenhouse gas (GHG) emissions (CO₂) are inherent to the process of the silicon, ferrosilicon, and silicones production. We acknowledge that our climate work is a continuous process. Elkem is well aware that the company must reduce the CO₂ emissions in line with the expectations in the Paris agreement, at the same time as we aim to contribute positively by providing solutions to the green transition.</p> <p>Impacted: Climate change affects Elkem in different ways, like technology development, market adaption, reputation, and regulatory limitations. One example is regulatory mechanisms like emission trading schemes. For example, changes in ETS regulations may cause a reduction of allowances and higher prices. This will increase Elkem's direct costs which is a current risk in our operations. Therefore, reducing GHG emissions from production is a strategic goal. In addition, Elkem is monitoring how physical, chronic, and acute climate change effects could affect our locations and business.</p>	<p>Target 13.1: Strengthen resilience and adaptive capacity to climate related hazards and natural disasters in all countries.</p>	<p>Scope 1: 2.66 mill. tonnes Scope 2: 901 000 tonnes Scope 3: 8.35 mill. tonnes Biocarbon share: 22% Energy recovery rate: 14% Increased ambitions announced in 2021: The climate road map ↗ CDP Climate change: A-, showing leadership in disclosure and transparency.</p>

Environmental



Environmental Introduction

With a fully integrated value chain from upstream silicon to downstream silicones, it is vital to manage the environmental production footprint. Elkem's target is to minimise the negative environmental impact throughout the value chain.

Converting quartz to silicon is a high-temperature smelting process that consumes vast amounts of energy. The production process uses carbon sources like fossil coal, charcoal, and wood chips as a reductant in the chemical conversion, releasing emissions of CO₂, NO_x, SO₂ and dust. Reducing our CO₂ emissions is of high priority and strategic importance. In addition, processing silicon into silicones involves substantial quantities of water waste treated before discharge to remove residues such as Chemical Oxygen Depletion (COD) substances from the process. Reliable water management is becoming increasingly important, leading to Elkem's strategic decision to engage with the CPD Water disclosure for the first time in 2021. Securing a B- score, Elkem will continue improve internal tools and increase external transparency.

All environmental impacts are identified and documented with measurements or calculations showing performance compared to governmental permits and/or internal improvement targets set by Elkem. We consider all waste streams to have value, either by reducing, recycling, or reusing and work continuously to reduce waste across our operations.

Today, we are leaders in understanding the complexity of producing carbon products, silicon, and silicones. Our continued dedication to research and innovation

makes our production even safer and more efficient. Overall, the goal is to reduce greenhouse gas emissions, increases energy recovery, and facilitates the efficient use of by-products.

The material topics that Elkem has an impact on and is impacted by:

- CO₂ emissions and other emissions to air
- Water management
- Waste management and circularity

Key highlights

- Launch of new global climate roadmap
- Full mapping of scope 3 emissions
- Energy recovery facility at Salten went live, recovering about 30% of the used energy - equal to more than 15 000 Norwegian households



22%

biocarbon in production

>80%

electricity based on renewable energy

70%

of process waste is either recycled or re-used

Environmental CO₂ emissions and mitigation

Climate change affects us all, and Elkem is committed to take a leading position in reducing the impacts of climate change. Elkem's ambition is to reduce the company's fossil CO₂ footprint by increasing renewable carbon sources and developing innovative production processes.

Key events 2021

- New climate roadmap launched in 2021
- Share of bio: 22%
- Scope 1+2 emissions: 3.42 million tonnes

Key risks

- × Carbon pricing / regulator disharmony
- × Market demand for less carbon-intensive products
- × Restrictions in the use of biobased sources

Targets

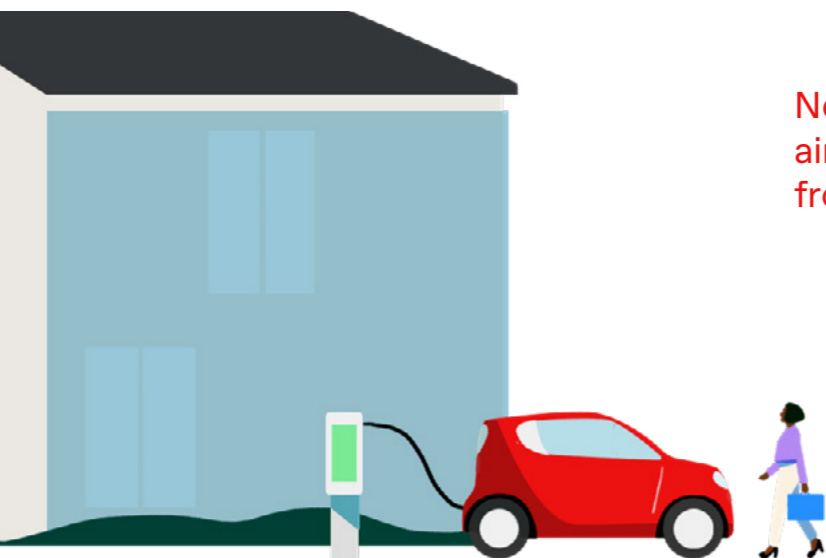
- Reduce absolute emissions in scope 1+2 with 28% by 2031
- Reduce the product carbon footprint by 39% by 2031

Key opportunities

- Offer products with a low carbon footprint
- Resource efficiency
- New market access and growing green demand

A more comprehensive overview of the climate risks and opportunities can be found in the TCFD 2021 report [↗](#)

New Elkem innovation project aims to eliminate CO₂ emissions from silicon production [↗](#)



Commitment

Committed to do business in accordance with the Paris agreement, to limit global warming to well below 2°C and the long-term commitment to be net-zero by 2050. Elkem will do so by reducing own emissions, growing its market share in the green transition, and enabling more circular economies.

Policies

→ The Elkem climate roadmap

Elkem's corporate policies [↗](#)

Carbon sources are a key factor in Elkem's production, and the smelters in the company account for about 76% of the total scope 1 emissions. Therefore, reducing our emissions will be key.

Overall, our fossil CO₂ emissions have increased over the last few years, due to reasons such as increased production and mergers and acquisitions. As the climate roadmap details, the progress towards cutting our emissions will be based on phasing in biocarbon, sourcing changes and power mix changes. Although this is at the top of Elkem's agenda, these efforts are not quick fixes. We must allow some time to implement the measures. We are working on a detailed plan with several projects, including plant upgrades, biocarbon substitution, carbon capture and storage and sourcing strategy to realise the climate roadmap.

Scope 1

The total scope 1 emissions were 2.52 million tonnes in 2021. During the past few years, Elkem has expanded its production. Since 2017, Elkem has increased production with seven smelting furnaces: two in Norway, four in China and one in Paraguay. Except for the furnace in Paraguay, all of these expansions come from acquiring existing capacity. The furnace in Paraguay only uses biocarbon as a raw material reductant, making its operations (scope 1 + scope 2) close to carbon neutral. The historical increase in CO₂ is also connected to the acquisition of upstream silicone activities in China, which uses a coal fired boiler to produce steam used in the production process. The increase from 2020 is due to higher production volumes and more categories included in reporting (natural gas).

Scope 2

Elkem's industrial processes are power-intensive, and electricity consumption is fundamental for operations. Scope 2 includes indirect emissions related to purchased electricity (incl. steam) where Elkem has operations. Elkem's scope 2 emissions in 2021 was 901 000 tonnes, down 0.5% from 2020.

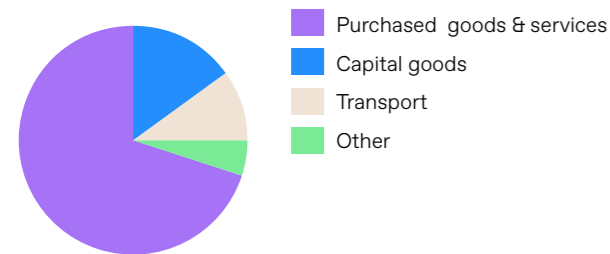
The location-based emission calculation is based on statistical emissions information and electricity output aggregated and averaged within a defined geographic boundary and during a specified period. Within this boundary, the different energy producers utilise a mix of energy resources, where fossil fuels (coal, oil, and gas) result in direct GHG emissions.

Scope 3

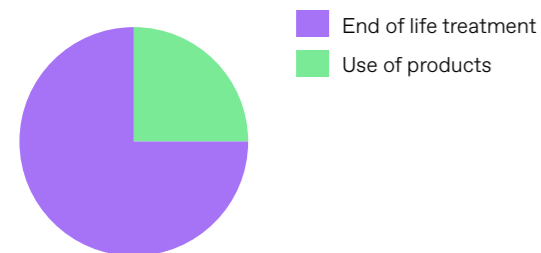
For the last few years, Elkem has mapped the scope 3 emissions of the company, emissions defined by the GHG protocol as all indirect emissions (not included in scope 2) that occur in the value chain of the reporting company, including upstream and downstream emissions. This work was an essential part of the climate strategy work. For 2021, we expanded our reporting to include scope 3 emissions to ensure we captured the largest indirect sources of GHG emissions in our value chain. The two largest categories identified are "purchased goods and services" and "end of life treatment". Scope 3 emissions were 8.35 million tonnes in 2021.

Environmental CO₂ emissions and mitigation

Scope 3 to gate



Scope 3 after gate



The importance of biocarbon

A high share of biocarbon is essential to reduce our processes' impact on climate change. As CO₂ is inherent to the smelting process with current technology, total emissions will vary year on year based on market conditions and capacity utilisation. One of Elkem's main CO₂ strategies is to replace fossil carbon with biocarbon in our smelting operations. Elkem's goal was to increase biocarbon usage at Norwegian smelters to 20% by 2021. The 2021 goal was reached, and the the global share of biocarbon rose to 22%.

Our new ambitious goal is to increase the renewable, biocarbon share to 50% by 2031. We need to continue our work on finding sustainable and financial viable biocarbon sources. That is why each smelter plant has developed a roadmap to reach the 2031-goal and will report on its progress. Elkem is also actively involved in new technology development and industrial partnerships to achieve this ambitious target. It is a

prerequisite for Elkem that renewable sources comply with our environmental and social requirements.

LCAs and carbon footprint

Life Cycle Assessments (LCAs) are being performed to quantify the environmental impact of our products. LCAs support us in reducing our environmental footprint even further by providing an accurate overview of the environmental impact of our operations. Furthermore, these assessments increase product transparency to assist our customers in their sustainability transformation. In 2021, Elkem conducted assessments of the environmental impact of our products produced at some of the major plants. These assessments have been undertaken from cradle to gate, i.e. covering the manufacturing process of raw materials until the products reach our plant's gates, with the assistance of a third party. Elkem will continue to perform LCAs on major product groups in 2022.

Calculation methodology

Elkem reports the company's emissions according to the GHG Protocol.

1,76 million tonnes of the direct CO₂-emissions from our production comes from the smelting process, where carbon (C) reacts with oxygen in quartz to produce silicon/ferrosilicon. As this cannot be measured directly, emissions are calculated based on third party certificates of carbon content (TC) in raw materials (coke and coal). CO₂ numbers from other sources, including heating and fuel, are based on standard conversion factors in accordance with the EU Emissions Trading Systems (EU ETS) Guidelines.

The electricity emission factors used in the calculation are provided by CEMAsys, a specialised consultancy firm, and are based on national gross electricity production mixes from the International Energy Agency's statistics developed for 2020. [↗](#)

KPIs

	Metric	2019	2020	2021	% change 2020 - 2021
Direct - Scope 1 emissions	Mill tonnes	2.15	2.39	2.52	Up 5.5%
Indirect, electricity use - Scope 2 emissions, location based	Mill tonnes	0.872	0.906	0.901	Down 0.5%
Indirect, electricity use - Scope 2 emissions, market based	Mill tonnes	2.24	2.75	2.83	Up 3%
Indirect, other emissions - Scope 3 emissions	Mill tonnes	N/A	7.0	8.35	Up 19%
Bioshare, Norway	%	18%	20%	21%	Up 1%
Bioshare, global	%	17%	19%	22%	Up 3%

The colour indicates a positive or negative development year on year.



Environmental Other emissions to air

Elkem's main emissions to air are NO_x, SO₂ and dust, in addition to CO₂. These emissions are mainly generated during the carbon calcining process, the silicon/ ferrosilicon smelting process and the upstream silicone-based production process.

Key events 2021

- Overall increase in total emissions, but wide difference between plants
- NO_x: Total emissions in company went up, but Norwegian smelters continue to reduce the emissions

Key risks

- × Increase in emissions
- × Changes in regulatory conditions
- × No technology development to support cuts in emissions

Targets

- SO₂ emissions: Reduction of 3000 tonnes
- Dust: 30% reduction by 2025

Key opportunities

- Research and development to reduce emissions
- Strong environmental reporting and management of deviations



Commitment

Elkem is committed to controlling and reducing the environmental impact of our production activities to ensure a responsible environmental footprint.

Policies

- The Elkem general policy
- EHS policy

Elkem's corporate policies [↗](#)

Emission to air are inherent to many of Elkem's main production processes and are closely monitored to ensure compliance with public permits. A total of 17 parameters concerning emission to air are reported by applicable sites quarterly to corporate EHS. Variations in the emission are mainly tied to changes in production volume as they are inherent to the production process, but they can also be affected by the quality of raw materials, the process control and investment in filter or scrubber systems.

NO_x

Nitrogen oxides (NO_x) are generated in Elkem's high temperature smelting and calcining processes and can be harmful to ecosystems and vegetation, as well as human health. Elkem has successfully invested substantial funds in R&D and furnace upgrade to reduce NO_x emission from Silicon smelting furnaces and will continue to do so going forward. The 2021 NO_x emission numbers show a total increase compared to 2020. This is related to increased emissions from furnaces outside of Norway that have not yet been rebuilt for NO_x reduction. The Norwegian NO_x emissions continue to see a reduction in 2021.

SO₂

Sulphur dioxide (SO₂) is generated when using carbon materials in the smelting process and when calcining coal and coke in the carbon products process. SO₂ emissions can have a negative effect on both plant and animal life, as well as human health. SO₂ emissions can be reduced through the use of carbon materials with low sulfur content, or by off-gas treatment. From 2020,

there was an increase in SO₂ emissions globally by 5%. The increase was mainly the effect of higher sulfur content in raw materials due to low availability of low sulfur coal and coke.

Target: Reduction of 3000 tonnes of SO₂ emissions.

Dust

Dust is a major challenge in the production of both silicon and carbon products. It is not only a pollutant to the external environment, but also a working environment health challenge. For both areas the main focus is to reduce the generation of dust in different production processes and increase the collection and filtering of dust that is generated so it does not escape out into the working environment. Extremely high temperatures and ultra-fine particles that disperse very quickly make it especially difficult to capture dust generated in some of the production processes.

Elkem allocates significant resources to combat dust and has a longterm ambition of reducing levels of dust in the working environment to levels where exposure is acceptable without the use of respiratory protection.

For external emissions of the dust the goal is a reduction of dust emissions by 30% by 2025 compared to 2015. Unfortunately dust emissions saw an increase of 8.5% in 2021 showing improvement efforts have stagnated. The efforts need renewed focus to meet our 2025 target.

Target: 30% reduction by 2025, baseline year 2015. The dust emissions in 2015 was 1,970 tonnes.

KPIs

	Metric	2019	2020	2021	% change 2020 - 2021
NO _x - Norway	Tonnes	5 462	4 450	4 332	Down 3%
	- Global	6 718	6 610	8 932	Up 35%
SO ₂	Tonnes	7 280	6 880	7 280	Up 6%
Dust	Tonnes	1 200	1 270	1 379	Up 8.5%

The colour indicates a positive or negative development year on year.

Environmental Energy management

Energy efficiency and sustainable sourcing of energy is of utmost importance to ensure security of supply, while at the same time reducing Elkem's global greenhouse gas footprint.

Key events 2021

- The completion and commissioning of the Salten energy recovery plant, producing ca. 270 GWh/year from waste heat [More information found here ↗](#)
- Energy recovery rate rose to 14%
- Approval and project start of the Phoenix project in China that will give a substantial reduction in energy intensity for the production of Silox

Key risks

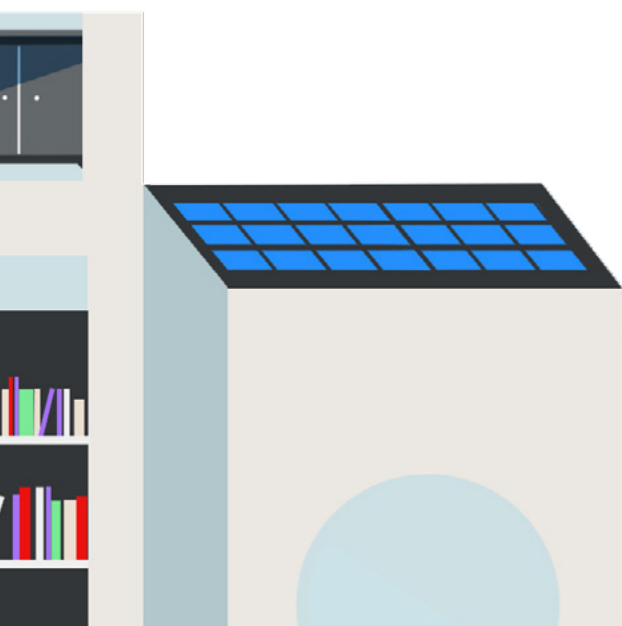
- × Changing regulatory framework, permits and requirements

Targets

- Energy recovery increase year on year
- Energy intensity improvements on main products
- Improved energy efficiency in facilities and equipment

Key opportunities

- High percentage (more than 80%) of renewable energy use
- Public grants for implementation of some energy efficiency measures
- Continued roll out of renewable energy in China and Europe



Commitment

Contributing to the green transition by providing products with low carbon footprint, achieved by reducing energy consumption and increasing share of renewable power.

Policies

Elkem uses Energy Management system at relevant sites. Our General Policy mandates minimisation of environmental impact.

[Elkem's corporate policies ↗](#)

Parts of Elkem's value chain are highly energy intensive, with silicon, ferrosilicon and foundry alloys being produced in high temperature electric arc furnaces. Elkem consumes around 6.5 TWh of electricity per year. In 2021, about 84% of this electricity was produced from renewable sources. As the percentage is already very high Elkem does not have quantitative targets to further increase it. We do however expect the availability of renewable energy in China particularly to increase substantially in the coming years enabling us to move more of our current Chinese power base to renewable solutions as they become available, and thereby increasing the total renewable percentage.

Elkem's three main targets for energy are improving the energy efficiency of existing facilities and equipment, reducing the energy intensity of main products and increasing energy recovery from processes that generate surplus heat. Elkem was an industrial pioneer in the utilisation of waste heat, with the first energy recovery system on a silicon smelting furnace being installed already in the 1970s. Recovered heat from smelting furnaces can be utilised as hot water for district heating, steam for other production processes and to generate new electricity. Electricity is sold back to the grid while hot water and steam are used both internally and externally to supply other companies and communities in the vicinity of each plant.

Our commitment to improving our energy footprint is part of our general commitment to minimise our environmental footprint as stated in our General Policy. Our EHS management system requires all units to implement energy management and report on consumption, recycling and deviations while working actively towards our targets. At corporate level we also have an environmental manager and a senior corporate energy specialist coordinating improvement efforts.

Environmental certification is part of Elkem's efforts with energy management. All applicable sites are ISO14001 certified either individually or with umbrella certification and ISO50001 certification is under evaluation for sites with the highest energy consumption. All environmental deviations and environmental indicators including those that are energy related are registered and followed up in our reporting and deviation management system Synergi.

Energy consumption

Total gross electricity consumption in Elkem in 2021 was 6,536 GWh, up from 6,400 GWh in 2020. Most of this change is related to increased production, due to the general global market situation for Elkem's main products. About 84% of the total gross electricity consumption is based on renewable power production. Except for one smelter in China, all smelting furnaces in Elkem run on renewable electrical energy. In addition to electrical energy, Elkem also consumes approximately 1.2 TWh of other types of energy for internal vehicle operation and heating/cooling of facilities and processes. Most of this is fossil-based energy.

Elkem does not have an overall target to reduce its total energy consumption as it has a growth strategy focused on increasing the production and availability of materials that are essential for the green transition and thereby essential for our customers ability to reduce their energy consumption. Our targets focus on using our energy base as efficiently as possible and thereby reducing the energy intensity of our products.

Energy recovery

Elkem has a long-term strategy to increase energy recovery year on year as part of its climate programme. Most of Elkem's major production sites have production processes that generate surplus heat with high enough temperatures to be recovered. This can be used to

Environmental Energy management

generate new electricity for the grid and steam or hot water for internal or external use in production or as district heating. The potential for energy recovery has been mapped at all applicable sites and energy recovery has already been implemented including large offgas boilers at 4 smelters generating new electricity and steam. The latest addition came online at the Elkem Salten plant in 2021 increasing the total recovery capacity with 270 GWh annually of electrical energy, equal to the consumption of more than 15 000 Norwegian households.

Globally, a total of 909 GWh heat and electricity was recovered from our plants in 2021, equal to about 56 000 Norwegian households annual electricity consumption. This represents 14% of total energy consumption, an increase from 11% in 2020.

Energy efficiency

As part of their energy management efforts Elkem sites are required to have updated energy inventories showing specific consumption and the potential for improving efficiency and thereby reducing consumption and saving cost. One example of this is replacing old, inefficient electrical motors with new motors with advanced digital energy control.

Other examples of important projects to improve energy efficiency can be found at Elkem Xinghuo where old inefficient coal boilers used to generate steam for the production process are being replaced with new co-generation technology that will produce both steam and electricity with a substantially lower consumption of coal. The second project is a major expansion of silox capacity with significantly lower energy intensity.

KPIs

	Metric	2019	2020	2021	% change 2020 - 2021
Energy consumption - electricity	GWh	6 010	6 399	6 536	Up 2%
Consumption of purchased or acquired electricity, renewable	GWh	4 847	5 153	5 488	Up 6.5%
Consumption of purchased or acquired electricity, non-renewable	GWh	1163	1246	1 047	Down 16%
Renewable share of electricity consumption	%	83%	80,5%	84%	Up 3.5%
Energy recovery	GWh	698	711	909	Up 28%
Energy recovery of total consumption	%	12%	11%	14%	Up 3%
Consumption of fuel (excluding feedstock) non-renewable	GWh	1,39	0,32	44	The large change in number is probably due to improved data gathering.
Consumption of fuel (excluding feedstock) renewable	MWh	0	0	0	
Consumption of purchased or acquired heat	MWh	0	0	0	
Consumption of purchased or required steam, renewable	MWh	0	0	0	
Consumption of purchased or required steam, non-renewable	MWh	48 936	54 000	58 750	Up 8.8%
Total energy consumption	GWh	7 457	6 773	7 023	Up 3.7%

The colour indicates a positive or negative development year on year.



Environmental Waste management

Elkem's environmental policy is to minimise the environmental impact of its production. As the production requires vast quantities of virgin raw materials transported over long distances it is of the utmost importance to fully utilise and not waste any of these materials. In addition, Elkem's business system builds on a zero-waste philosophy focusing on the reduction of all kinds of waste throughout the value chain with a high focus on the efficient utilisation of all resources, reduction of waste generation, and on reuse, recycling or sales of residual waste.

Key events 2021

- 70% of process waste generated in 2021 was either reused or recycled
- Circularity was introduced as one of three key pillars in the climate roadmap, see page 78 [↗](#)

Key risks

- × Cost risk: Increased cost of hazardous waste handling storage and disposal with tightening local legislation
- × Restrictions in use of biobased sources

Key opportunities

- Cost / profit opportunity with less raw material cost and more sellable products
- Climate opportunity with less raw material transportation and increased circularity



Commitment

All physical waste streams have value, and it is our goal to realise that value and avoid disposal or destruction.

To enable circular economies, in our operations and with partners.

Policies

- Elkem's General policy
- EHS policy

Elkem's corporate policies [↗](#)

Elkem's value chain includes numerous process flows, including mining, high-temperature calcining, high-temperature smelting, and chemical processing.

Major waste streams from our process flows are:

- Tailings and off-spec from mining activities
- Degraded raw materials and off-spec from calcining and smelting
- Spent synthesis mass, filtration cakes and spent solvents from chemical processing.
- Dust and sludges from air and water treatment facilities
- Dirty packaging.

Management and utilisation:

Several processes have been put in place to reduce waste. The focus is mainly on process improvements to avoid generating waste and to reduce consumption of raw materials and intermediates in the different processes, in addition to reuse and recycling:

- Reduce waste generation
- Reuse and recycle (spent mass neutralisation and packaging)
- Incineration with and without energy recovery.

Any residual waste left after other efforts is disposed of in accordance with local regulations, including limited landfilling in approved landfills. 70% of processed waste generated in 2021 was either reused or recycled.

The value chain for Elkem's products consists of *four main types of production*, each with specific potential waste streams:

Quartz is found both as rock formations in mountain seams and as stones in prehistoric riverbeds. The extraction process includes the use of explosives for mountain seam extraction or diggers to remove topsoil for riverbed extraction. Quartz is then further processed with washing, crushing and sizing. No hazardous

chemicals are used in the process. Main waste streams from the process are tailings from the extraction or washing and off-spec (quality or size) from crushing and sizing. Most of the waste streams are utilised to restore open-pit mines or sold as by-products (sands and gravels to the construction industry), while some are landfilled in connection with the restoration of mining sites. Elkem is also developing alternative usages for sands in agriculture and sports.

Waste in connection with shipment: It is usually in bulk with no specific packaging.

Hazard classification: As quartz is a naturally occurring mineral there are no hazardous wastes in the process.

Carbon production consists of high-temperature treatment of anthracite and petroleum coke. And the mixing of these with binders creates different types of paste used for electrodes, fill materials and additives in the metallurgical smelting industry. Major waste streams are degraded raw materials and off-spec production. Most of this can be reprocessed safely back into new batches of product. The remaining waste is delivered to approved suppliers for hazardous waste treatment. New, non-hazardous (green) binders are under development to reduce the use of Coal Tar Pitch High Temperature (CTPHT).

Waste in connection with shipment: The primary raw materials are received in bulk, eliminating packaging. Finished products are delivered to customers in big-bags or on pallets, giving customers a potential source of waste. However, the packaging materials are of good enough quality and can be reused multiple times.

Hazard classification: Degraded raw materials and off-spec production can contain binders consisting of CTPHT which is listed as a substance of very high concern.

Environmental Waste management

Silicon smelting consists of a high-temperature chemical reaction that transforms quartz and carbon (coal, charcoal, or wood chips) into silicon. In addition, alloying, crushing, and sizing operations are used to tailor the product to customer needs in the electronics, foundry, and chemical industries.

Major waste streams are degraded raw materials, slag from smelting, particles in off-gas emissions and fines generated during crushing and sizing operations. In the early 1970s, Elkem pioneered off-gas capture and utilisation by developing necessary bag filter technology to capture off-gas from smelting furnaces and other technologies to turn it into a valuable product used in hundreds of products today. This technology turns over 150,000 tonnes of waste into products every year.

The other waste streams have historically been sold as low-value off-grade or landfilled on site. Teams of dedicated professionals have worked on increasing the utilisation of these streams for many years now treating them as valuable raw materials that can either be re-introduced to Elkem's different production processes or sold as value added products to customers. As a result of this work Elkem harvests more than 100,000 tonnes of process products every year, reducing costs at our plants and generating new solutions for our customers.

Waste in connection with shipment: Except for charcoal, which is supplied in big-bags and alloying materials which are often shipped in smaller containers, most raw materials are supplied in bulk reducing the need for packaging. Finished products are also shipped either in bulk or in big-bags on pallets that can be reused.

Hazard classification: None of the major waste streams are defined as hazardous. Some alloying materials and chemicals used to process silicon after smelting are hazardous, but do not represent major waste streams. These are always delivered to certified third party suppliers for disposal.

Silicone formulation consists of many different chemical processes and reactions that result in specialty products closely tailored to customer needs. A number of different waste streams, both hazardous and non-hazardous are generated throughout and between the different production processes. Main waste streams include acid water, used solvents, hydrolysis, sludge and waste masses. Waste reduction is included in discussion on annual objectives and improvement plans conducted by the production teams and our research and innovation departments.

Waste in connection with shipment: Substantial amounts of packaging is needed for raw materials, intermediates, and finished products. Waste reduction efforts focus on reuse (IBCs, pallets and drums) and recycling.

Hazard classification: A large part of the waste generated during the production processes is hazardous waste. All hazardous waste is either treated on-site (incineration, neutralisation, reuse) or sent to certified service providers for destruction.

Generic waste streams: Elkem also has generic waste streams such as used oil from vehicles and equipment, and packaging materials from sourced goods. Each site has dedicated systems to sort waste on site and deliver waste to approved service providers that will recycle or re-use it whenever possible.

KPIs

	Metric	2019	2020	2021	% change 2020 - 2021	Comment
Total waste generated	Tonnes	-	356 156	397 247	Up 12%	
Non-hazardous waste to landfill	Tonnes	-	48 077	58 465	Up 22%	Includes both onsite and offsite landfills
Hazardous waste to landfill	Tonnes	-	6 031	5 200	Down 14%	Delivered to approved sites
Non-hazardous waste to destruction	Tonnes	-	2 399	15 660	**	Includes incineration both with and without energy recovery
Hazardous waste to destruction	Tonnes	-	62 004	38 791	Down 37%	Includes incineration both with and without energy recovery
Total waste directed to disposal	Tonnes	-	118 544	118 116	Down 0.3%	30% of total waste generated
Byproducts to recycling/sale ex. microsilica	Tonnes	-	94 690	137 998	Up 46%	Raw materials, slag and production fines
Oils and chemicals to recycling	Tonnes	-	1 945	69	**	
Scrap, packaging, etc. to recycling	Tonnes	-	4 687	4 491	Down 4%	
Microsilica	Tonnes	-	136 322	136 573		Off-gas fume processed to sales product
Total waste diverted from disposal (reused or recycled)	Tonnes	-	237 645	279 131	Up 17%	70% of total waste generated
Mining activities*	Tonnes	-	308 263	320 687	Up 4%	Tailings and crushing residue (natural rock without chemical processing) from mining.

The colour indicates a positive or negative development year on year.

*All of the waste in the mining activities was returned to the mining sites for further use in mining activities or as part of our programme to refurbish mining site for return to farming or to their natural state.

** The major changes in number is due to changes in classification as the reporting structure in Elkem is improving. We continue to work internally to improve the quality of the data.

How does Elkem Silicones Division tackle the climate change down the value chain? Find out more here

Environmental Water management

Water represents a critical input in many of Elkem's main production processes. Elkem is also indirectly dependent on water as more of 80% of its electricity is hydro-power. It is therefore of the utmost importance to ensure that our water footprint is sustainable. Water related challenges vary strongly across Elkem's value chain and are mainly centered around preventing hazardous discharge.

Key events 2021

- Elkem disclosed its CDP Water rating for the first time. Received a B- rating
- Elkem did not have any significant environmental water spills

Targets

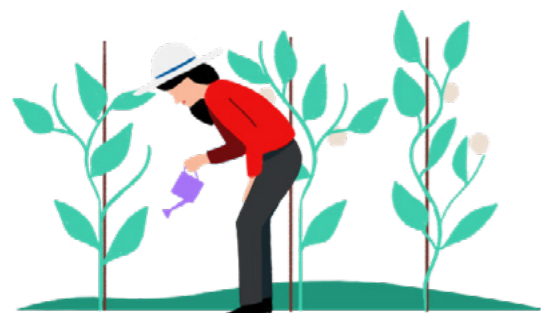
- Full water discharge permit compliance
- Zero spills of D4/D5
- New water consumption targets will be announced in 2022

Key risks

- × Water availability
- × Water quality (contamination and discharge)
- × Water-related regulatory framework and permits
- × Stakeholder conflict
- × Biodiversity and ecosystems

Key opportunities

- Strong environmental management systems
- Improvements of water handling particularly the production expansion project at the Xinghou plant in China



Commitment

Elkem is committed to efficient and strong management of water resources, focusing on sustainable production and emission and discharge control. In addition, Elkem is committed to full regulatory compliance in all areas we operate.

Policies

- EHS policy
- General policy

Elkem's corporate policies [↗](#)

Water consumption and scarcity

Elkem acknowledges the importance of stewarding water as a shared resource. Thus, we have implemented programmes to monitor and reduce water withdrawal, consumption, and discharge.

The primary utilisation of freshwater is split into four areas:

- Water as a raw material for production
- Water used to cool production equipment and products
- Water used for cleaning, and
- Water used for emergency preparedness.

The first two represent the majority of all water usagenand require good quality to avoid product contamination, equipment corrosion and clogging, and contamination of water infrastructure.

Water consumption (discharge and withdrawals) are monitored depending on availability and source and reported to corporate every quarter. Some water withdrawals are measured directly with in-line water meters for continuous measurement, while others are calculated by capacity reflecting actual operational time. Figures on water withdrawals in areas with water scarcity are generally controlled by third party as water is purchased by an external supplier.

Discharge volumes of process water are reported quarterly to corporate management. Discharge of cooling water, returned to the source of extraction at similar quality as the raw water extracted, is not monitored directly as the volume and quality equals withdrawn water. The cooling water is only subject to heat exchange and most of the cooling systems are closed avoiding extensive evaporation. Loss of cooling water in open cooling towers is not measured.

Many of Elkem's production sites are subject to regulations requiring permits for discharge to water. Specific parameters are included in each plant's permit and reported minimum annually. A total of 17 water discharge parameters are also measured or calculated and reported quarterly to corporate from applicable plants.

Almost all of Elkem's production units are located in areas with ample access to water and no significant water stress issues. This is not only important for our production processes, but also for our electricity base which is mainly based on hydropower. A small number of sites are located in areas with long-term or periodic water scarcity (north-east China, South Africa, India), but not water stress. In these areas, Elkem's water withdrawals are low due to the nature of the actual production. Water management measures have been implemented in all areas including systematic risk assessments (including those done in connection with TCFD), and measures to limit withdrawal.

All sites have readily available potable water free of charge and unlimited for all employees and contractors working on site. Sanitary facilities, including toilets and hand/face washing facilities, are also available across all sites. In addition, showers and changing rooms are available across all sites where employees need to shower after work. Working uniforms for this type of work are also provided and cleaned by the company free of charge.

Indirect use in the value chain outside of Elkem has not yet been fully evaluated except discussions around water availability for hydroelectric power that is deemed critical as an energy source for most of Elkem's smelters.

Water management

While most water consumption issues represent low risk as production sites with high consumption are

Environmental Water management

located in areas with ample water supply, environmental issues connected to water discharge are more critical. Most of our major production sites are located close to large bodies of water (both fresh and saltwater basins) where uncontrolled discharge could have lasting negative environmental impact. Water management is therefor also focused on fully understanding the environmental effect of all water discharges in connection with our production and ensuring systems are in place for effective water monitoring and treatment to ensure compliance with public discharge permits and improvement targets to reduce discharge of harmful substances.

Enablers to meet these strategic targets, specifically for water-related issues, are:

- Substitution of raw materials
- Good housekeeping practices
- Development of new processes and production technology
- An advanced control programme, including environmental monitoring
- Wastewater treatment and reduction by recycling or reuse
- Transparency (CDP Water).

Discharge to water and water treatment

Many of Elkem's production sites are subject to regulations requiring permits for discharge to water. Specific parameters are included in each plant's permit and reported minimum annually. A total of 17 water discharge parameters are measured or calculated and reported quarterly to corporate EHS from applicable plants.

The three most critical discharges to water are organic substances that can affect oxygen concentration in water (Chemical Oxygen Demand), Silicone Cyclics (D4, D5 and D6) and Polycyclic aromatic hydrocarbon (PAH). The two first are an inherent part of upstream and intermediate silicones production while the third is found in the carbon paste production.

Chemical oxygen demand (COD) indicates the amount of oxygen consumed by reactions in a measured solution, which is used to quantify the number of organics in the water. The potential impact of higher COD levels in water is related to reduced levels of dissolved oxygen (DO). A reduction of DO can lead to anaerobic conditions, which is harmful to fish and biota. Therefore, compliance is ensured through extensive monitoring to minimize the generation of organic waste

in production processes, infrastructure maintenance to prevent leakage from production units and pipelines and optimal operations of on-site water treatment to ensure purification before discharge.

D4, D5 and D6 are important intermediates in the production of Silicones and have been defined in the EU as Substances of Very High Concern (SVHC). D4 is categorised as Persistent, Bioaccumulative and Toxic (PBT) and D5 and D6 are categorised as very Persistent, very Bioaccumulative (vPvB) substances. Internal spills may cause adverse environmental effects if they enter sewage systems that cannot treat and remove D4/D5 residues, but the main concern is not in our own production. The main concern is residual amounts that may remain in our customer's consumer wash-off products and enter sewage systems during final use. This may adversely affect the marine environments because of low biodegradability and the risk of bioaccumulation. The compounds are, however, easily degraded by photooxidation.

Elkem's strategy to reduce the risk of harm with D4/D5/D6 is threefold. The first part involves a high focus on process control and on avoiding spills and leakages in our own production processes. The second part is dedicated R&D efforts together with our customers to reduce residual D4/D5/D6 in their products. The third part includes substantial investments in China, both in upstream and downstream production, to replace cyclic materials such as D4, D5, and D6 with linear materials.

PAH discharges originate when coal-tar pitch is used as a binder in the production of carbon products including smelting furnace electrodes which is one of the main products in Elkem Carbon Solutions. PAH is typically bound to particles and not easily biologically available, but it is still strictly regulated as it is defined as SVHC by the EU. PAHs have moderate to high acute toxicity to aquatic life and birds and can have adverse long-term effects including tumours, reproduction, development, and immunity. Compliance with discharge permits is ensured through process control and extensive water treatment on-site to limit the amount of PAH in discharges to water. Elkem has also invested substantial funds in R&D activities and holds a leading position in the development of alternative binders without PAH.

For more information about how Elkem handles SVCH, see the product governance chapter

Performance in 2021

There were no significant spills into water in 2021, defined as those that have a lasting environmental impact, or significant environmental incidents.

Improvement plan launched in 2021	Status 2022
Strengthen transparency by adoption to CDP Water.	Disclosed with B- rating.
Improve descriptions of water risk assessments, measures, and control programmes.	In 2021, Elkem disclosed comprehensive data on the groups water management according to the CDP Water reporting regime. This include figures on annual water withdrawal, consumption and discharges, including business-related water risks.
Improve reporting on run off water from plant areas.	New targets on water consumption will be disclosed in 2022.

KPIs

	Metric	2019	2020	2021
Withdrawal				
Total freshwater withdrawal	Megaliters	-	86 900	85 654
Fresh surface water, including rainwater, water from wetlands, rivers, and lakes	Megaliters	-	46 644	46 698
Groundwater - renewable	Megaliters	-	613	581
Third party sources	Megaliters	-	39 913	38 391
Discharge				
Discharge of cooling water	Megaliters	-	59 000	52 925
Discharge of process water	Megaliters	-	16 500	7 020
Fresh surface water	Megaliters	-	5 000	4 936
Brackish surface water/seawater	Megaliters	-	43 000	54 883
Third-party destinations	Megaliters	-	11 000	126
COD flow	Thousand kg	-	263	202
Total water discharge	Megaliters	-	75 500	59 945
Total water consumption	Megaliters	-	30 000	25 709

Social



Social Introduction

Safe operations are always our first priority. We believe that all incidents can and should be prevented, and a zero-harm philosophy guides our everyday work. We consider a skilled, engaged, and diverse workforce the key to our continued success.

Today's operations are built on operational excellence and continuous improvement and development. Elkem's global team of more than 7000 people have a shared commitment to our stakeholders: to deliver our and your potential. Our employees are our most valuable resource. As such, Elkem takes responsibility for all activities on Elkem's properties and is committed to ensuring that employees and contractors working on Elkem sites can do so without being harmed. Elkem is also committed to influence our suppliers and business partners.

Overall, the total number of injuries went up in 2021, and we are not satisfied with that. This just shows that our health and safety work can never lose focus.

The on-going Covid-19 pandemic has shown us the differences in social disparity between different countries and continents. At Elkem, we believe a sustainable future depends on our ability to reduce disparities and create social prosperity.

Elkem is committed to build a culture that reduces inequality and respects cultural differences. Therefore, providing a safe and healthy work environment where employees are safeguarded is a key priority. In addition,

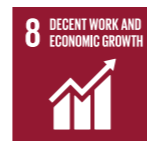
it is important that individual involvement is promoted. As part of our commitment to a safe work environment, Elkem also considers the protection and promotion of human rights, workers' rights, decent living wages, and equal opportunities vital to our operations.

The material topics that Elkem has an impact on and is impacted by:

- Health and safety
- Human rights

Key highlights

- Launching the Elkem people policy
- Launching the human rights eLearning course
- No high consequence injuries



78%
had development discussions

25%
female share

3.7
total recordable injury rate

Social Health and safety

A robust health and safety culture is the essence of our licence to operate. Our environment, health and safety (EHS) efforts are based on a zero-harm philosophy and our EHS management system is implemented to work systematically towards this goal. Even though the number of recordable injuries and the total recordable injury rate (TRIR) increased from 2020 to 2021, there were no fatalities and no high consequence injuries.

Key events 2021

- Total recordable injury rate, employees: 3.7
- Total recordable injury rate, contractors: 3.5
- Zero high - consequence injuries

Targets

- Zero recordable injuries – employees and contractors
- Zero cases of serious occupational illness

Key risk

- × Major risks related to Elkem's production and processes include fire, explosion, toxic chemical exposure, and contact with heavy industrial vehicles and equipment.

Comprehensive risk assessment and mitigation is done for all processes and work operations throughout Elkem with broad participation of employees at all levels. Management of Change and routine review of assessments and measures are an integrated part of Elkem's risk management.



Commitment

Elkem is committed to a 100% safe workplace with zero-harm and zero injuries. Our commitment to EHS covers all employees and contractors.

Policies

- General policy
- EHS policy

Elkem's corporate policies [↗](#)

Management approach

Elkem's production activities involve inherent dangers, exposures and emissions that may cause substantial harm as operations include high temperature smelting (>2,000°C) and advanced processing of hazardous chemicals. A zero-harm philosophy and an organisation that is fully committed to giving the health and safety of employees and contractors working on site their first priority is paramount to our success and licence to operate.

Even though Elkem bears the full responsibility for ensuring a safe and healthy workplace we also expect our employees, and contractors working on Elkem property to be fully committed to a safe and healthy workplace and to do their part in achieving this. Elkem works continuously to provide our employees and contractors with the right skills and tools to understand and deal with any risks they may meet in our workplace.

Elkem has developed comprehensive systems for risk management that are across at all Elkem sites worldwide. We show our commitment by:

- Having clearly defined responsibilities and accepting accountability for Health and Safety at all levels of the organisation
- Always prioritising individual health and safety when making decisions
- Setting ambitious goals and striving for continuous improvement in Health and Safety
- Using the same EHS systems, tools, and methods, and having the same expectations to EHS performance wherever we operate worldwide.

Elkem has a strict reporting regime for injuries and requires all injuries to be reported, investigated, and mitigated independent of severity. Overall, the total number of injuries went up in 2021, and we are not satisfied with that. This just shows that our health and safety work can never lose focus. We observe that there were no high-consequence work-related injuries in 2021,

down from 1 in 2020 and 3 in 2019. Total recordable injury rate went up from 2.3 to 3.7, and lost workday rate (LWR) was 1.5, up from 0.8 in 2020. There were no fatalities at the Elkem plants in 2021.

In addition to recordable injuries, a total of 190 high potential work-related incidents (High Risk Incidents) were identified at Elkem sites in 2021, up from 147 in 2020. The main increase in numbers is connected to increased focus on reporting this type of incident at more sites to be able to find causes and implement measures before real harm happens. All recordable injuries and high-potential incidents are fully investigated, and measures are implemented to prevent similar incidents from happening in the future. Detailed information is also shared with other sites to ensure implementation of learnings from the incidents at all applicable Elkem sites.

EHS management system and auditing

Elkem has a comprehensive in-house developed corporate EHS management system called FOKUS (after the Norwegian word for "focus", implying the need for significant attention on the organisation's EHS issues) that applies to all sites and activities worldwide. The system is built around recognised international standards for EHS management and covers relevant EHS topics identified through extensive risk assessment at all sites.

The system's requirements and provisions cover all Elkem employees and all contractors working on Elkem property. In addition, suppliers of raw materials and goods are asked to comply with basic EHS rules and regulations as part of contractual purchasing agreements.

Elkem's EHS management system defines EHS as a line management responsibility where managers at all levels of the organisation are accountable for the EHS performance in their organisations and locations.

Social Health and safety

To ensure the line management's ability to fulfil this responsibility, each site has an EHS organisation based on the size of the organisation and the level of risk. Elkem's corporate Vice President for EHS is responsible for Elkem's EHS management system. Compliance with the system is internally audited at the site by corporate and divisional resources routinely. The internal corporate EHS audit programme aims to audit all production sites minimum every other year. The target for 2021 was 24 audits including a backlog from 2020 because of Covid-19 travel restrictions. As travel restrictions continued in 2021, only 8 of these were done during the year covering most of Europe. In addition, alternative digital follow-up has been initiated pending travel permission.

Incidents management

General requirements for recording, notification and classification of injuries and incidents are based on criteria from US OSHA which are relevant for our type of industry. Elkem has a comprehensive digital incident management system and expects all employees to report any injuries, incidents, unsafe conditions, deviations and non-compliances. All reports are subject to investigation, mitigation and sharing where appropriate for learning and improvement. Serious incidents are subject to comprehensive root cause analysis. Recordable injuries and high-risk incidents are presented for corporate management on a weekly basis for discussion. In addition to reporting, incident management also includes emergency preparedness. All sites have emergency plans and emergency resources tailored to their level of risk. This varies from simple first aid and fire extinguishing equipment, to fully equipped in-house emergency response teams.

Covid-19 management

From the start of the Covid-19 pandemic Elkem has established Crisis Management Teams at all sites around the world under the coordination of the Corporate Crisis Management team and VP for EHS and CSR. All sites have updated emergency and contingency plans to protect employee health and keep production and business activities running. Sites report weekly infection and quarantine numbers to corporate. Approximately

450 employees have tested positive to Covid-19 from the start in early 2020. With a few exceptions there have been no severe illnesses among employees and no substantial production disruptions.

Health and safety training

Elkem employees receive comprehensive documented EHS training to ensure a complete understanding of hazards in the workplace and how they can avoid harm during daily operations.

Training activities include:

- Basic training in Elkem's EHS management system FOKUS mandatory for all employees
- Specific work-related training for each work operation and each tool employees are required to use to ensure they have necessary competence to do the job in a safe and health manner
- Awareness training to ensure each employee understands how their personal behaviour can affect the health and safety of themselves and others
- Training needs and completed training activities are reviewed annually through development discussions with each employee and documented at site level.

Contractor health and safety on site

Elkem's zero-harm philosophy applies also to all contractors working on site and contractors are subject to the same health and safety requirements as Elkem employees when working on Elkem property. Contractor companies are screened before being contracted, and contractor employees receive specific EHS training from Elkem before they are allowed to work at Elkem plants.

For more comprehensive information [↗](#)

KPIs

Employees

Work-related injuries	Metric	2019	2020	2021	% change 2020 - 2021
Fatalities	Absolute numbers Rate	1 0.1	0 0	0 0	No change
High-consequence work-related injuries	Absolute no. Rate	1 0.1	1 0.1	0 0	No change
Lost workday injuries	Absolute no. Rate	14 1.1	10 0.8	21 1.5	Rate: Up 88%
Other recordable injuries	Absolute no. Rate	14 1.1	19 1.5	30 2.2	Rate: Up 47%
Total recordable injuries	Absolute no. Rate	28 2.2	29 2.3	51 37	Rate: Up 61%
Hours worked	Number	13 037 309	13 097 248	13 706 429	Up 5%

Contractors

Work-related injuries	Metric	2019	2020	2021	% change 2020 - 2021
Fatalities	Absolute numbers Rate	0 0	0 0	0 0	No change
High-consequence work-related injuries	Absolute no. Rate	0 0	0 0	0 0	No change
Lost workday injuries	Absolute no. Rate	7 2.0	6 2.2	7 1.5	Rate: Down 32% due to more hours worked
Other recordable injuries	Absolute no. Rate	9 2.6	7 2.5	10 2.1	Rate: Down 16% due to more hours worked
Total recordable injuries	Absolute no. Rate	16 4.6	13 4.7	17 3.5	Rate: Down 26% due to more hours worked
Hours worked	Number		2 761 047	4 797 159	Up 74%

The colour indicates a positive or negative development year on year.

2021 employee injury breakdown

- Zero fatalities and high consequence work-related injuries
- 21 out of 35 plants with zero lost workday recordable injuries
- A total of 51 recordable injuries, up from 29 in 2020 - Total recordable injuries include lost workday, medical treatment, and restricted work injuries, where main types of injuries were lacerations, bone fractures, burns and sprains/strains.

Social Human rights

Elkem believes that companies that act responsibly and create value by securing sustainable economic growth will be successful in the long term. A safe and healthy working environment and promotion of labour rights are key priorities. In addition to the growing general acceptance of business' duty to respect human rights, there has been a rise in countries considering and passing human rights laws that regulate business activities. Such laws are found in many countries where Elkem operates, e.g., Canada, France, the Netherlands, Germany, Norway, the United Kingdom, and the United States (California).

Key events 2021

- Established a cross-functional human rights working group with representatives from Compliance, EHS, ESG Office, HR, Supply Chain, and the labour unions
- Launched a human rights e-Learning course, available for all employees

Targets

- In 2022, we will conduct a company-wide human rights risk and impact assessment with support from external experts
- We will also promote our newly launched Human Rights eLearning to key employee target groups

Key risk

- × The 2022 risk assessment will provide an updated overview of the human rights and labour rights risk picture of Elkem. This will be presented in the ESG report 2022.

Elkem is an important community player in several of the locations where sites and plants are based. Community dialogue helps understand the role the company plays. More information about our community involvement can be found on our website. ↗



Commitment

Elkem is committed to the UN Declaration and International Conventions on Human Rights, the OECD Guidelines for Multinational Enterprises, the ILO Declaration on Fundamental Principles and Rights at Work, ILO's core conventions and relevant local legislations in the countries where we operate. We are a member of the United Nations Global Compact and follow the United Nations Guiding Principles on Business and Human Rights.

Policies

- Code of conduct
- Human rights policy
- Code of conduct for business partners
- People policy

Elkem's corporate policies [↗](#)

As an international company, Elkem operates in a global market, both as a producer of materials and products and as a buyer of commodities and services. It is important to acknowledge that this global footprint puts us at risk of being complicit in human rights violations.

We have a long history of encouraging and ensuring employee representation, and we have demonstrated a strong EHS focus in all our operations. However, we also have a wide-ranging, multi-tiered supply chain where it is difficult to achieve full transparency on labour conditions. In addition, we operate in countries where human rights are under pressure.

As a company, we cannot resolve all these issues. Still, we recognise our responsibility to identify human rights risks in our value chains and mitigate them to the best of our ability.

Human rights

Respect is one of Elkem's values. The group is fully committed to avoid complicity in human rights abuses, and to respect, protect and promote human rights throughout our operations.

Elkem's Modern Slavery Act statement [↗](#)

In the Elkem-spirit of continuous improvements, we have strengthened our framework to safeguard human rights. In 2021 we established a cross-functional human rights working group with representatives from Compliance, EHS, ESG Office, HR, Supply Chain, and the labour unions.

Elkem recognises that respecting human rights begins with understanding what human rights are and how our business activities may impact them. That is why we also launched a new human rights e-Learning course in 2021. The e-Learning course will be promoted to the broader Elkem organisation in 2022.

As we grow and enter new and challenging markets, we see the need to take a more systematic approach to our human rights strategy. In 2022, we will conduct a company-wide human rights risk- and impact assessment (HRIA) with support from external experts. Based on the HRIA, we will identify Elkem's human rights priorities and launch a human rights action plan.

Labour rights

Elkem acknowledges all employees' right to form and join trade unions of their own choice. We have a long tradition of including and involving employees and their unions and believe this improves decision-making processes.

In 2021 the reported number of employees that are part of collective bargaining agreements are 39%, down from 64%. As this is a major gap, we are looking into the reported data accuracy of previous years and continuously develop and understand the definitions and reporting frames of this topic.

What is important to Elkem is a good and constructive dialogue between the employees and the leadership. Elkem recognises and respects the freedom of association and the right to collective bargaining in accordance with local, national legislation and practices. In countries where the local laws, practice or traditions

Social Human rights

do not support this, Elkem encourage channels and arenas where the employees are informed about the company's status and allowed to get information, raise concerns, and influence decisions affecting them.

The level of trade union coverage varies from country to country. In some countries the operators are organised under one collective bargaining agreement. In other countries there are no unions represented in Elkem's entities. At sites where there are no formalised labour unions, local management is encouraged to set up channels and arenas for collaboration where employees are informed about the company's status and allowed to raise concerns and influence decisions that affect them. The EBS tools and culture supports this as involvement in decisions is part of the management system.

Elkem complies with local statutory requirements regarding freedom of association in all countries where we are present. Pursuant to the Norwegian Companies Act provisions, employees have three representatives and two observers on the board of Elkem ASA. Elkem also has a European Works Council (EWC), which is in accordance with the European Union Directive 2009/38/EC. The meetings take place annually.

Working hours shall be in accordance with local law or agreements. Where the operation of the business makes it necessary to deviate from this, measures shall be taken to secure sufficient time for rest between each working period, and the actual working hours shall be in line with the intentions above.

Employees are entitled to medical treatment covered by the company in the event of sickness or injury resulting directly from their work at Elkem. In the event of work-related disablement or death, employees or their surviving immediate family member(s) will receive insurance payments and/or pension. In addition, employees shall be protected from being dismissed due to pregnancy or responsibility for new-born children, consistent with local customs and laws.

Child and forced labour

Elkem strongly condemns human trafficking as a breach of fundamental human rights. Employment in Elkem shall always be on a voluntary basis and without any form of threats, force, or unlawful recruitment.

Elkem has operations in parts of the world where there is a risk of child labour and forced labour, such as parts of Asia, South America, and Africa. We take this risk seriously, and we will not tolerate the use of child or forced labour in any of our operations and facilities. We expect the suppliers and contractors with whom we do business to uphold the same standards and codify this through our code of conduct for business partners. More information about our sustainable supplier management practices can be found in the supply chain management chapter on page 142. [↗](#)

There were no confirmed incidents of child or forced labour in Elkem in 2021.

The human rights policy protects the rights of the employees and the stakeholders that are specifically vulnerable to our activities. The age limit for working in Elkem is 18 years, with the exception of vacation substitutes and vocational students, where the limit is 16 years. Vacation substitutes under 18 years old and students are only allowed to do light and simple work that is deemed safe and does not conflict with school participation. Elkem does not allow children below the age of 16 to be employed in our operations. Apprenticeships or other programmes are accepted for children under 16, but only if this enhances the child's education.

Some supplier production sites or some of our own plants are considered high-risk work and must be done only by trained and qualified people. Several measures are in place to ensure compliance with these procedures and our human rights policy. Elkem has strict routines to ensure that all official permits and registrations are in accordance with local law, and that all employees have written employment contracts or other documentation in line with local legal requirements, insurance coverage and correct tax payments. EHS audits are regularly conducted at all plants, with specific focus on these topics for plants in high-risk areas.

KPIs

	Metric	2019	2020	2021	Comment
Employees covered by collective bargaining agreements	%	61%	64%	39%	See comment on page 123
Human rights impact assessment to identify operations and suppliers at significant risk for incidents of child and forced labour	Status			Decided	Will be conducted in 2022
Reported confirmed cases of child or forced labour	Number	0	0	0	



Social Diversity, equality and inclusion

At Elkem, we believe that our people are our most valuable asset. The collective sum of the individual differences, life experiences, knowledge, inventiveness, self-expression, unique capabilities, and talent that our employees invest in their work not only represents a significant part of our culture, but also our reputation and company's achievements. By embracing equal opportunities, and a diverse and inclusive company culture, Elkem aims to increase our capabilities within innovation, customer centricity, cultural awareness, and compliance.

Key events 2021

- Appointed a dedicated global DEI resource
- Development of a global DEI strategy for Elkem

Targets

- Kick-off DEI strategy implementation with the corporate management
- Launch awareness training for all employees
- Develop inclusive leadership assessment
- Review of all HR policies & processes in light of DEI

Key risks

- × Legal challenges as a result of non-compliance
- × Poor attraction & retention of top talent
- × Impact of low inclusion on continuous improvement and innovation

Key opportunities

- Attract and retain diverse talent
- Tap into diverse perspectives leading to better continuous improvement and innovation
- Reduce employee turnover costs

Commitment

Elkem is committed to creating equal opportunities for all employees working in a diverse and inclusive environment. We appreciate that every individual is unique and valuable and should be respected for their individual abilities. We have zero tolerance for any form of harassment or discrimination.

Our responsibility to our people, customers, stakeholders, and communities is to accelerate equality for all.

Policies

- Code of conduct
- Speak up policy
- People policy
- Global recruitment procedure

Elkem's corporate policies [↗](#)

Elkem will provide equal employment opportunities and treat all our employees – and job seekers – fairly. All Elkem employees are expected to promote and act in accordance to the Elkem values of respect, involvement, precision, and continuous improvement.

Diversity, equality & inclusion (DEI)

Our DEI vision is to cultivate a diverse, equitable and inclusive workplace where all employees feel engaged, valued and a sense of belonging. Diversity, equality, and inclusion are key pillars in our people strategy. They represent the collective sum of the individual differences, life experiences, knowledge, innovation, and unique capabilities that our employees offer and invest in their work.

Diversity

Diversity is the conscious act of intentionally seeking to employ a workforce that consists of individuals with a range of characteristics such as: gender, religion, race, national or ethnic origin, cultural background, social group, disability, sexual orientation, marital status, age, and political opinion as outlined in our code of conduct.

Equality

Equality is about creating fair access, opportunity, and advancement for all employees.

Inclusion

Inclusion means inviting and welcoming employee ideas, knowledge, perspectives, approaches and styles into the discussion to leverage continuous improvements, innovation and maximise business success.

Promoting diversity, equality, and inclusion are essential in attracting and retaining our talent, increasing profitability, maintaining competitive advantage and sustaining success in Elkem. Our objective is to create a culture of inclusivity where all voices are valued. We know that our company benefits from employees who feel safe to ask questions, challenge the way we do things, are always looking for continuous improvements, actively learn from their successes and failures, and bring diverse perspectives to the table. By creating and sustaining a diverse, equal and inclusive work culture, Elkem aims to increase our ability to provide advanced material solutions shaping a better and more sustainable future for all of our stakeholders.

At Elkem, we believe that integrity is a competitive advantage. We strive to be open, honest and respectful in our relationships with each other. We believe that we all have the right to work in an open and safe environment free from bullying, harassment, and discrimination.

Every year, Elkem delivers mandatory Global Compliance training for all employees. Our code of conduct training includes topics such as reporting, retaliation and discrimination in the workplace. We use our Speak Up whistle blowing channel to ensure everyone has the opportunity to report any misconduct or potential non-compliance. Elkem's grievance mechanism is targeted towards stakeholders who have feedback or concerns related to our plants, projects, or other business activities worldwide. It is a channel to present issues to the leaders of these activities, coordinated by Elkem's ESG office. We believe that our leaders are the drivers of cultural change. Their commitment and role model behaviour is

Social Diversity, equality, and inclusion

key to our success. Elkem has consciously introduced diversity & inclusion into our leadership development program to provide our leaders with the tools and techniques they need to incorporate DEI within their teams and throughout Elkem.

In 2021, Elkem appointed a global DEI Lead. Elkem also established a targeted plan to further support global and local DEI goals to promote diversity, equality, and inclusion.

For more information on our current activities and action plans please see 2021 Activity and reporting duty report (ARP). [↗](#)

Board of directors and management

Elkem's board of directors consists of 11 members from Germany, France, China and Norway. Three out of eight shareholder elected board members are women, per the Norwegian Public Limited Liability Companies Act. Furthermore, one out of the three employee elected representatives, is female. The female share of the board is 36%. One of the eleven board members are in the age group 30–50 years old. The rest of the members are 51 years or older.

The corporate management team of Elkem consists of nine people from France, Norway, and Brazil. The management team consists of eight men and one woman. One of the members is in the age group of 30 to 50 years old and the rest are 51 years or older, and this is the same as in 2020. The female share of management teams are at 30%, an increase from 24% in 2020. As the female share in the company is at 25%, this is a welcoming development. However, there are great differences within the organisation. At some sites women account for over 50% of the site management whilst at other locations, there are no women in the management team.

Age distribution

The age distribution is an indicator of experience and background. The tracking indicates some changes in the demography the last years, where the company now has more younger (<30) and older (>50) employees than previously.



KPIs

	Metric	2019	2020	2021	% change 2020 - 2021
Female share					
Female share in company	%	25%	25%	25%	No change
Female share in management	%	23%	24%	30%	Up 6%
Female share in leadership programme	%	32%	19%	N/A	Not organised due to Covid-19 travel restrictions
Female leaders overall					
Female share in trainee programme	%	-	58%	43%	Down 15%
Female share of part time workers	%	-	60%	45%	Down 15%
Female share of temporary employees	%	-	18%	29%	Up 11%
Female share white collar	%	34%	34%	36%	Up 2%
Female share blue collar	%	18%	21%	17%	Down 4%
Gender pays differences	Status	N/A	N/A	Started	Initial project started, mapping organisation in Iceland and Norway
Parental leave - average women (Norway only)	Weeks		38.7	38	Down 0.7 weeks
Parental leave - average men (Norway only)	Weeks		18.5	16	Down 2.5 weeks
Age distribution, employees					
< 30 years	%	16%	14%	16%	
30-50 years	%	59%	60%	56%	
>50 years	%	25%	26%	28%	
Age distribution, management teams					
< 30 years	%		3%	6%	
30-50 years	%		64%	60%	
>50 years	%		33%	34%	
Salary: CEO to median employee (NOR) wage	Ratio		11:1	7:1	

The colour indicates a positive or negative development year on year.

Elkem published its first equality statement in 2021. The report is available online [↗](#)

Social Human development

Supported by a strong and consistent company culture, Elkem continuously works to be a safe and attractive employer for our current and future employees. Developing the organisation to enable strategy implementation, and systematic competence development and performance management of each employee, are key to ensure the successful and sustainable growth of the company.

Key events 2021

- Launch of Elkem people policy
- Turnover rate: 8.4%
- Employees that has had development discussions: 78%

Target

- 100% of employees of all positions and locations shall have an annual development discussion with their leader

Key risks

- × Ability to attract necessary resources – both the competencies and necessary capacity - in the remote locations of the Elkem plants
- × Lack of development opportunities and follow-up (ref. development discussion implementation rate) may result in demotivated employees and a high turnover rate
- × Restrictions on travelling due to the pandemic make it challenging to exchange best practises and create good teamwork

Key opportunities

- As an attractive employer and industry leader worldwide, Elkem can retain and attract highly skilled and motivated employees that support the shared strategic goals
- Global operations offer exciting development opportunities to all employees



Commitment

Elkem is committed to empowering people to become experts in their own responsibility areas through involvement, respect, continuous improvement, and precision.

All contractors are subject to the same safety standards as our own employees and receive training and follow-up to ensure this.

Policies

- Elkem people policy
- Elkem code of conduct

Elkem's corporate policies [↗](#)

Our people are our most important investment. Elkem's human resource strategy, organisation and development are vehicles to develop the culture to leverage the organisation's critical competencies, core values, and behaviour. It is also a vehicle to deliver on the business strategy. Our critical position planning process is designed to identify gaps, future competence and capacity needs and gap closing strategies, including organisation models, to ensure that the necessary capability and capacity are in place when and where we need it.

Elkem's global people policy was launched in 2021 and established principles related to the people processes and the company's obligation to handle employment matters consistently, supporting the employees throughout their employment life cycle with Elkem. The people policy aims to cover key material issues for employees globally.

Elkem business system (EBS) – our common culture
EBS is Elkem's business system and leadership philosophy that carries our common culture, language, and provides working- and continuous improvement methods for all employees. EBS is a key component to

achieve operational excellence across of our value chain. Building on our values; respect, involvement, precision, and continuous improvement, EBS is the foundation of Elkem's company culture. At the heart of EBS is the dedication to involve all employees in improvement work and Elkem takes great pride in empowering our employees as experts in their own responsibility areas. We consider delegated and decentralised decision-making to be a strength and key element of our business culture. The EBS principle of empowering people is key to understanding Elkem's view on labour rights and employee involvement. We seek to achieve increased efficiency in the product value chain through the people value chain in a team-based structure with orderly working and wage conditions, providing a wide range of opportunities for personal development.

Developing a shared language and culture takes time. When Elkem establishes or acquires a new organisation, the priority is always to implement our EHS and EBS standards and systems, regardless of the location or previous organisation of the site. Some Elkem sites are at the beginning of this journey, while other entities have come a long way.



Product value chain



World class quality products

↑ Requires ↓



People value chain



World class performers

Social Human development

EBS assessments to promote involvement and continuous improvement includes:

- A corporate EBS team biannually assesses all sites through observations and discussions to evaluate the progression, involvement, and improvements and encourage further development
- The assessment's topics are divided into three main parts: i) Daily operations related to work teams and daily management, 5S visual management and problem-solving, ii) systematic improvements related to flow and control and capability and iii) sponsorship, strategy, learning and competence development
- Across all levels, Elkem's leadership focuses on involvement, knowledge and information sharing and on the management's commitment to empowering their employees through continuous improvement and shared goals and tools.

Over the last years, Elkem has expanded its presence globally, particularly in China. Our previous experience from China shows that cultural and maturity differences have not prevented the implementation and development of EBS. We are continuously hiring and training new local employees and conducting assessments to find the gaps and improvement areas to further develop our organisation.

Every employee shall know their targets and plan together with their leaders what support and resources they need to meet them, to develop further and perform well. All employees are expected to contribute to a performance culture that drives continuous improvement. It shall be safe for all employees to challenge the status quo to drive a culture of innovation. This requires that all employees receive regular constructive feedback on their performance and contribution to the working environment.

At Elkem, this is done through formal and informal channels, starting with the individual's job description and the annual Development Discussion (DD). In the DD, individual targets are agreed upon, performance is discussed, and feedback is given. This is done to support changing work priorities aligned with strategic goals. In addition, and as part of the DD, the leader also receives feedback from the employee to enhance both individual performance and cooperation.

All employees are responsible for their personal and professional development, utilising Elkem's internal and external competency development offering. Elkem is committed to ensure that the entire workforce have access to learning and development opportunities and resources to develop their skills and knowledge to be competent in their roles. Leaders are responsible for supporting all employees to attain, build and demonstrate the Elkem values, skills, and competencies needed to succeed in their roles. The DD is used to agree on a plan for the current competencies required to be successful and prepares employees for the future by ensuring relevant competencies. We encourage and support our employees to acquire relevant and formal education if needed for the current position or develop into other future roles.

Elkem offers a wide range of internal training. The offering is continuously evaluated and further developed. In addition, the increased use of digital channels enables faster and broader roll-out of competency development.

Elkem encourages employees to take on new challenges and job responsibilities to develop themselves and to contribute to the company's culture of sharing and cross-divisional -functional and -geographic learning. Elkem offers good conditions to support employees on such development steps if a change includes a relocation. Elkem's global target is for 100% of employees across

The Elkem competency development model:

<h1>10%</h1> <p>development through classroom/online based training activities</p>	<h1>70%</h1> <p>development through taking input from classroom/online training and putting it into practice as part of the daily work with supervisor, colleagues, mentors, and improvement work in improvement teams</p>	<h1>20%</h1> <p>development through taking on new challenges</p>
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all locations and levels to have an annual development discussion with their leader. In 2021, 78% of Elkem employees had a DD, a decrease from 85% in 2020. Achieving 100% during the pandemic has been challenging. Also, when acquiring new plants and entities, the first priority is to ensure the safety of our new colleagues and to start the implementation of EBS.

Flexibility and work-life balance

To reach Elkem's overarching goals, the company needs to develop an organisational culture based on participation, teamwork, and people empowerment. Elkem is committed to providing flexibility in working hours and -location in accordance with local laws and regulations. Such flexibility can be offered by the company at the employee's request, provided that flexible working hours or -location does not in any way prevent or hinder the employee in performing his/her job tasks. Managing professional and personal life can be challenging. Across the whole company, working terms must allow employees to combine working and family life. Elkem recognises that a better work-life balance can improve employee motivation, performance, and productivity, and reduce stress. Therefore, we want to support employees to achieve a better balance between work and their other priorities, such as: dependent care responsibilities, special leave needs, leisure activities, further learning and other interests.

Turnover

Elkem strives to retain existing employees and attract new ones. The turnover rate indicates the attractiveness of Elkem as an employer and how well Elkem manages to keep employees on board. The total turnover rate in the Elkem group was 8,4% in 2021. The female share of new hires was overall 27% and the female share of leavers was 23%, indicating a positive trend for the company,

meaning that over time we will increase the female share and diversity in the workforce.

Changes to the organisation, number of people and needed competencies can happen both as increase and reduction. When it is necessary to reduce the workforce, the process shall always comply with relevant legislation and agreements. Furthermore, the management shall involve employees and their representatives early to run a transparent and constructive process, both for the employees who leave the company and those who continue. Therefore, change management is an essential part of leadership development activities in Elkem.

Contractors and temporary hires

All Elkem employees shall have a written employment contract or other written documentation for employment complying with local legislation. This also applies for contractors and temporary hires.

Elkem invests in people and thus aims to offer permanent employment and limit non-regular employment. However, during peak times, contracted and temporary work can be considered for time-limited projects or projects in need of specialised, non-core competencies. Elkem is committed to fair compensation and priority rights to potential permanent employment in such cases.

Contractors are subject to the exact same EHS requirements as our employees, and all contractors receive full training and follow-up to ensure that they work in a safe and healthy environment. The number of contracted employees (non-Elkem employees working full-time for more than three months as a substitute for hired employees) at Elkem was 433 in 2021.

KPIs

	Metric	2019	2020	2021	% change 2020 - 2021
Total employees	Number	6 370	6 856	7 074	Up 3%
Turnover rate	%	8%	6%	8.4%	Up 2.4%
Female share of new hires	%	30%	26%	27%	Up 1%
Female share of leavers	%	17%	23%	23%	No change
Blue collar / operators	%	67%	65%	55%	
White collar / staff	%	33%	35%	45%	
Contractors	Number	882	420	433	
Europe	Number	327	115	159	
Asia	Number	155	265	238	
America	Number	157	40	36	
Africa	Number	0	0	0	
Temporary hire rate (%) to permanent employment	%	-	6%	7%	Up 1%
Part time workers rate (%) to permanent employment	%	-	3%	6%	Up 3%
Development discussions	%	65	85	78	Down 7%

The colour indicates a positive or negative development year on year.

Governance



Governance Introduction

Sustainability is central to Elkem's business strategy, and the company works proactively to ensure integrity and responsibility in all operations. Elkem believes that companies that act responsibly and create value by securing production with the lowest possible environmental impact will be successful in the long term.

Elkem is committed to develop its business in accordance with the UN Sustainable Development Goals and the Paris agreement. As a member of the United Nations Global Compact, Elkem aims to ensure that our business is aligned with the ten UN Global Compact principles. Elkem is committed to following the United Nations Guiding Principles on Business and Human Rights.

Elkem's operations affect several stakeholder groups, such as employees, customers, suppliers, and local communities. Elkem works proactively to ensure safe and healthy working conditions and high integrity towards all stakeholder groups. We consider trust and partnerships key to success and long-term value creation. Elkem has implemented policies, procedures, and training to ensure a strong compliance culture across the group to secure good corporate governance. For a complete overview of the governance structure and how the company's ESG work is organised, please see "Sustainability governance" in the introduction chapter.

Elkem seeks to obtain a satisfactory regulatory framework for all its operations. We are committed to do so in accordance with our Code of conduct, with complete transparency and no hidden agenda. Therefore, we participate in relevant industry

organisations and take lobby positions when needed. A full list of the organisations we participate in can be found under membership organisations overview here. [↗](#)

The material topics that Elkem has an impact on and is impacted by:

- Product governance, including chemical safety
- Responsible value chain / supply chain management
- Supplying the green transition

Key highlights

- Implementation of the TCFD framework and publishing the first TCFD report
- Significantly strengthened internal compliance function
- An internal product governance project was launched, aiming to coordinate initiatives and set new targets

Governing tools and policies are available online [↗](#)

How does our commitment to UN Global Compact impact our work? [Read more](#) [↗](#)



92%

new suppliers subject to assessment and pre-qualification screening

28 min

average compliance training

96%

employees that have signed the code of conduct

Governance [Product governance](#)

Product stewardship is the responsible and proactive management of health, safety, and environmental aspects of a product throughout its lifecycle. Elkem is in a unique position where it covers the entire value chain from the raw material quartz via metallurgical silicon to specialty silicones. Hence, all aspects of product stewardship apply to the various production steps. Below you can find some key aspects of product governance in Elkem.

Key event 2021

→ In 2021 Elkem launched a product governance project to coordinate and communicate the cross-divisional initiatives within the product governance and stewardship

Target

→ Identify areas of key priority and set valid KPIs. The KPIs will be developed in 2022



Commitment

Proactive management of use of chemicals and the protection of the environment and the human health are fundamental pre-requisites for conducting our business and securing our license to operate.

Policies

- Product stewardship policy
- Procurement policy
- Responsible sourcing of biocarbon

Elkem's corporate policies [↗](#)

Renewable raw materials and bio-based products

Biocarbon is a strategic raw material for the sustainable production of Elkem's silicon and ferrosilicon products and include wood chips, charcoal, and biocarbon agglomerates. Elkem is committed to sustainable and ethical raw material sourcing in accordance with internationally accepted principles and standards, e.g. FSC (Forrest Stewardship Council) and PEFC (Programme for the Endorsement of Forrest Certification). Elkem's sourcing contracts as well as Elkem's corporate standards comply with the highest level of sustainability and responsible sourcing of natural raw materials.

sustainability charter: Biodiversity and Environment | IMA Europe. [↗](#)

Elkem is committed to responsible sourcing of minerals, so as not to support any possible conflict with human rights abuses or environmental degradation. Read our conflict mineral statement here. [↗](#)

Mining activities and biodiversity

Elkem has a strong commitment to exclude protected areas from mining activities. Elkem's mining activities are strictly coordinated with the national mining authorities. Since quartz is a common mineral and not of environmental concern, Elkem can search for sourcing of its raw material solely from non-protected areas.

Transport safety

The transport of hazardous goods is heavily regulated internationally, e.g. through UN Transport Regulations or the International Maritime Organization (IMO) that result in a number of standards for packed material (IMDG), transport of solid bulk cargoes (IMSBC) and transport of liquids in bulk (IBC).

All transport is provided by professional transport companies that follow these standards and regulations.

At the plant sites, transport of hazardous goods by truck occurs, and strict procedures have been implemented for each hazardous substance to ensure the safe transport, including loading, unloading and handling.

Elkem makes environmental risk and impact assessments part of the mandatory steps when applying for mining permits, including the consultation with biodiversity experts. During mining operations, emissions to water and air are monitored as foreseen, as well as the impact on soil, vegetation, and the landscape. All activities are audited by the national mining authorities. As a mitigation measure, annual provisions are made, earmarked for the restoration of the mine after end activity. Elkem has received awards in Spain even received awards for sustainable development and good environmental practices of its quartz mining activities.

Checklists covering the condition of the vehicles and equipment, as well as speed and alcohol control, are standard routines at plant site. All plants are ISPS ports (International Ship and Port facility Security) with restricted access. All personnel must undergo safety training, and transport companies participate in safety drills with the plant's own fire brigade.

Hazardous substances management

It is Elkem's policy to assess safer alternatives for hazardous substances of concern and promoting its substitution and reduction. The duty to substitute hazardous chemicals is part of the national Labour Law, and it is practised in all our laboratories and plants,

As a member of IMA-Europe (Industrial Minerals Association), Elkem commits to the mining industry's

Governance Product governance

whenever technically possible.

D4, D5, D6 are important intermediates in the production of downstream Silicones. These are classified as Substances of Very High Concern (SVHC) and closely controlled throughout the production, storage, and shipping processes. While a substitution is not possible, production processes are constantly improved to reduce the residual amount in the downstream products.

Coal tar pitch is another SVHC-substance and listed on ECHA's authorisation list. It is an important raw material in the production of Søderberg electrode paste and other pastes. Elkem Carbon has successfully substituted coal tar pitch with non-hazardous and green alternatives for a number of pastes and intends to substitute for Søderberg electrodes, too.

The European chemicals legislation REACH requires suppliers of articles (manufacturers or importers) to inform its European downstream users about the presence of substances of very high concern (SVHC) when their concentration exceeds 0.1% (w/w). Elkem regularly monitors its product portfolio for SVHC substances that are subject to existing or future regulatory restrictions or that are associated with particular concerns. We review our management plans regularly defining the specific risks associated with each identified SVHC substance. We review all possible options to mitigate identified risks including possible substitution where possible, phasing-out any substance posing an unacceptable risk to human health and/or the environment or limiting the exposure of the SVHC substance if substitution is not deemed possible.

In addition to complying with all chemical production regulations, the Silicones division is a signatory of the Responsible Care Global Charter of the International Council of Chemical Associations (ICCA). Through participation in the Responsible Care programme, Elkem is committed to manage chemicals safely throughout the life cycle. This includes both proactively identifying and managing chemical risks and concerns throughout our operations and replacing substances in the portfolio that pose unacceptable risk to human health, safety and environment.

Product safety program

The safety of Elkem's products is ensured by two main pillars, i.e. the chemical safety assessment through

the European chemicals legislation REACH and the mandatory safety data sheets (SDS) as a hazard communication tool for our valued customers, as well as our own employees.

Elkem's management commits to a zero-harm policy. This includes detailed standard operating procedures (SOP), the duty to familiarize with relevant safety data sheets, and safe job analyses. Specific databases (Inosa) store the formal requirements and make them traceable. Incident investigation and corrective actions are part of the corporate EHS standard and supported by a dedicated software tool (Synergi). Auditing is an import process in Elkem's safety program and includes both auditing of Elkem's suppliers and contractors as well as internal audits and audits by our customers. This is part of Elkem's ISO 9001 and ISO 14001 certifications.

Chemical safety

Compliance with chemical product regulations include product registrations, product authorisations, safety data sheets and product labels. There are also industry specific regulations that Elkem complies with, for example for products that are in contact with food and water (packaging) or health care (band aid/wound care).

With a portfolio of more than 4,000 different products that are used in a multitude of applications, regulatory and product compliance is key for Elkem. The document management system OSCAR has been implemented in the Silicones division and ensures that compliance, certificates, and regulatory statements are easily available for distribution to customers.

Elkem is committed to comply with international regulatory requirements and provides safety data sheets (SDS) for all products in accordance with UN Globally Harmonized System of Classification and Labelling of Chemicals (GHS). In all markets where Elkem's products are promoted, the products must meet specific requirements and comply with certain technical, regulatory, health and environmental standards.

Key events in 2021 for chemical safety:

- As signatories of the CEFIC improvement plan Elkem Silicones has committed to proactively review and update all its REACH dossiers by 2027
- Elkem Silicones completed all necessary pre-registrations in Turkey under KKDIK regulation by

- late 2020 and submitted all relevant notifications under UK REACH in October 2021
- Successful submissions and exemptions of several PLC (polymers of low concerns) under Korea-REACH
- Met the EU Poison Center Notifications (PCN) requirements for professional and consumer uses that went into force early 2021
- Supported over 2500 non-standard customer requests in 2021 needing strong PSRA support.

Animal testing policy

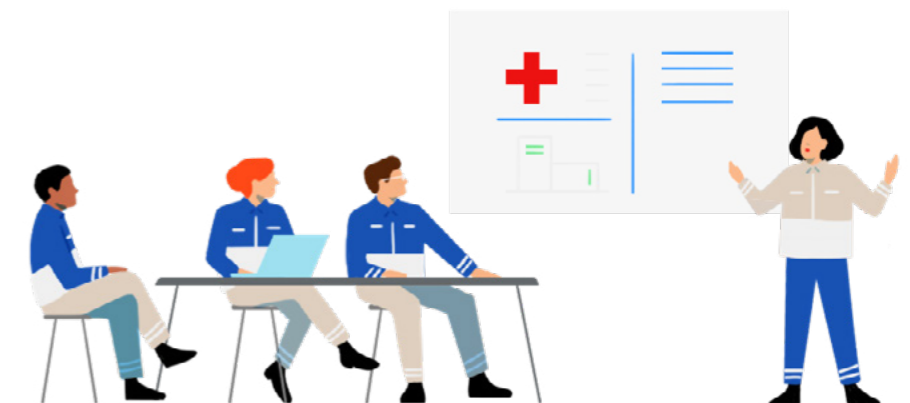
Elkem commits to abstain from animal testing except where legally required. All toxicological necessary vertebrate animal studies conducted by Elkem Silicones are validated and coordinated centrally via an Elkem toxicologist. Central coordination ensures that the product stewardship team is aware of all existing and relevant data supporting product safety and covering global regulatory needs. All studies are in compliance with European cosmetic regulations.

Policy on emerging technologies

Elkem is aware of risks and controversies associated with the use of emerging technologies. Elkem does not use GMO (genetically modified organisms) and has no research activities within stem cells or genetic engineering.

Elkem does however utilise nanoforms of existing products because they are key enablers for sustainable constructions (Elkem Microsilica®) and for battery technology (silicon). Elkem is committed to assess risks related to the use of nanoparticles, and to implement measures to reduce potential exposure as it is foreseen by national occupational hygiene legislation. Furthermore, nanoforms require a specific chemical safety assessment under the European REACH legislation to ensure their safe use.

Elkem follows an internal procedure for the assessment of new products (incl. nanoforms) through the corporate product stewardship team.



Governance Supply chain management

Responsible sourcing is a strategic priority for Elkem. Elkem's total global procurement spend is approximately NOK 16 billion per year, covering supplies of raw materials, energy, goods, services and logistics. The active supply base consists of about 18,000 suppliers globally. The number of raw material suppliers is relatively low while the number of suppliers of other goods and services are high.

Key events 2021

- 83% of new business partners signed code of conduct
- 92 % of new raw material suppliers pre-qualified and pre-assessed

Key risks

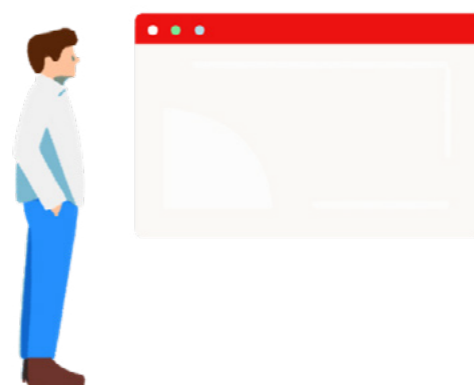
- × Violations of human rights in the supply chain, mainly child labour and forced labour
- × Carbon material (coal) required for smelting processes
- × Limited availability of sustainable biocarbon
- × Unsustainable land use for quartz mining and biocarbon production, and biodiversity loss

Targets

- All new raw material suppliers subject to assessment and pre-qualification screening
- All new suppliers of raw material subject to supplier audit
- All new suppliers to sign Elkem's code of conduct for business

Key opportunities

- Increase share of biocarbon and biochemicals
- Professional partner with stronger environmental and social standards



Commitment

Elkem is committed to consider ethics, labour rights, social and environmental issues when sourcing products and services across all procurement categories and across all operations.

Policies

Elkem has policies and procedures in place to ensure and govern responsible sourcing. This includes:

- Procurement policy, outlining Elkem's procedures for prequalification and management of suppliers.
- Policy for sourcing of bio-carbon, outlining Elkem's commitment to sustainable forest management and the requirements for procuring bio-based reductants in Elkem.

Elkem's corporate policies [↗](#)

As one of the world's leading suppliers of advanced silicon-based materials with operations throughout the value chain from quartz to speciality silicones, Elkem continuously strives to improve how we source our supplies. The procurement organisation is responsible for raw material supply, logistics, goods, and services required for Elkem's operations. Elkem's procurement organisation is decentralised, with procurement functions at corporate, divisional and plant level. We further differentiate between procurement of major raw materials, and indirect materials. Suppliers of major raw materials are always considered critical suppliers, and suppliers of indirect materials may be regarded as critical, depending on an independent assessment. The corporate supply chain has the overall global responsibility for developing and maintaining Elkem's procurement and logistics strategy, and Elkem's international procurement policies and procedures.

Supplier contracts ensure that risk assessments and audits can be conducted before prequalification and at any stage of the supplier contract.

The business partner code sets out Elkem's expectations to suppliers regarding ethics, labour rights and social and environmental issues. We require all suppliers to endorse the business partner code and maintain their commitment throughout the relationship. The business partner code is considered an integral part of any agreement that regulates the relationship between Elkem and a supplier.

Supplier due diligence and screening

The procurement function is responsible for carrying out pre-qualification and risk assessments of suppliers based on corporate requirements within environment, health and safety, social responsibility, anti-corruption and compliance with laws and regulations. In 2021 a new contract lifecycle management (CLM) system went live. In 2022, Elkem plans to implement a new supplier relationship management (SRM) system and process for supplier prequalification. In parallel, Elkem will implement the "Dow Jones" compliance tool, a third-party risk management tool providing support to understand compliance risk and take mitigating actions.

All new suppliers of raw materials are screened against environmental and social criteria aligned with the expectations of the Global Reporting Initiative (GRI). For high-risk suppliers, additional due diligence assessments are performed (integrity due diligence). The new system will enable a more unified process for screening and vetting of suppliers across all divisions and jurisdictions, tracking and monitoring suppliers' compliance throughout the contract lifecycle, as well as identifying and managing supplier risk. Regular audits are performed by plant personnel or corporate personnel, focusing on supplies that are associated with risk. Elkem is also using external partners to perform audits on their behalf.

Governance Supply chain management

Supplier due diligence and screening under the pandemic

Historically has Elkem done 100% audits on their new raw material suppliers. Due to the limitations given by the pandemic we have not been able to keep this level in 2021. The target is to get back on a high level when the restrictions are lifted.

There was one reported concern regarding adverse human rights in the supply chain in 2021.

EHS in the supply chain

Elkem has developed detailed requirements for high-risk suppliers and contractors regarding health, safety, and environmental standards for mining, transportation, storage, and loading operations. In addition, Elkem is actively involved in promoting and monitoring safe and decent working conditions. This includes health and safety training and providing correct personal protection equipment for suppliers' employees when necessary. Elkem also carries out age control to prevent child labour and ensure responsible working conditions for young employees. Elkem requires suppliers and contractors to engage their employees with written contracts on fair terms and give them information about their right to organise and collectively bargain with management where this is legally possible.

Elkem's requirements are regularly discussed in meetings with suppliers. High-risk suppliers must demonstrate their understanding of legal requirements and hazards in their operations and present plans showing how risk will be eliminated or controlled while working for Elkem. Elkem performs audits and inspections, in connection with routine visits for quality, technical and business follow-up, and as unannounced site visits. External auditors also conduct supplier audits on Elkem's behalf. Violations of Elkem's requirements are registered and addressed with verbal or written warnings in addition to requests for improvements when necessary. Repeated violations may lead to requirements for speedy implementation of improvement plans, financial penalties, or termination of contracts with immediate effect.

Our process for responsible sourcing



KPIs

	Metric	2019	2020	2021	Comment/ % change 2020 - 2021
Updated process and system for supplier management	Project status	In progress	In progress	Implemented	
Share of new raw materials suppliers subjected to assessment and pre-qualification screening in 2021	%	100%	100%	92%	Down 8%
Share of new raw material suppliers subjected to supplier audit in 2020	%	100%	>90%	19%	The last two years, it has been hard to conduct audits due to Covid-19
Adverse human rights concerns in supply chain reported	Number	0	0	1	
Share of new suppliers who have signed Elkem's code of conduct for business partners	%	-	90% *	83%	Down 7%

The colour indicates a positive or negative development year on year.

*new suppliers from second half of the year, when tracking started.



Governance Compliance

Elkem considers good corporate governance a prerequisite to build trust and value creation. The regulatory requirements and stakeholder expectations to establish effective compliance programmes continuously increase and require organisations to have a positive culture and good internal procedures to prevent non-compliance, misconduct, corruption, and fraud.

Key events 2021

- Elkem has significantly invested in strengthening its internal compliance function. Part of the investment included hiring a new Chief Compliance Officer and Senior Compliance Officer
- Elkem also strengthened its legal function by engaging with a specialist company focused on antitrust and export control
- Number of employees that have signed the code of conduct: 96%

Key risks

- × High-risk markets
- × High-value investments
- × Government interactions
- × Licenses and permits
- × Business partners

Target

- Fully implement a TPRM solution for screening of intermediaries, customers, and suppliers
- Strengthen our compliance capacity in China and France
- Deliver and implement a new set of group policies, procedures, and internal control

Key opportunities

- To empower employees and partners through targeted training and awareness activities
- To reduce financial and reputational risk through effective implementation of a compliance program
- To build stakeholder trust through transparent disclosure of compliance performance

Commitment

Elkem bases its activities on the principles of honesty and respect for other people. We will meet the same ethical standards, respecting the laws, cultures, dignity, and rights of individuals everywhere we operate. We have a zero-tolerance policy towards any form of corruption and conduct our business in accordance with applicable anti-money laundering and antitrust laws.

Policies

- Code of conduct
- Speak up policy
- Investigation procedure
- International trade sanctions global procedure and tool
- Competition law compliance policy and manual

Elkem's corporate policies [↗](#)

Compliance training

Elkem is committed to providing relevant and engaging compliance training. However, in 2021, travel restrictions and social distancing measures made face-to-face training more challenging to conduct. Therefore, our focus switched to enhancing the online training program with new ethics, anti-bribery and corruption, and antitrust modules. The eLearning programme was made available in multiple languages and is mandatory for all employees in the defined target groups.

Training is supported by written commitment by employees to our key policies. The training and signing is ongoing and the target is 100% coverage of commitment.

Anti-competitive practices

Elkem is committed to avoiding anti-competitive practices across its entire operation. The competition law compliance policy outlines what behaviour is considered acceptable and not. Elkem also conducts anti-competitive practice risk assessments to identify high-risk jurisdictions and employee groups that are the most exposed to anti-competitive practices. Additional assessments are made to identify red flags and mitigate any gaps.

Anti-bribery and corruption

Elkem has a zero-tolerance policy against corruption. Elkem has multiple operations across jurisdictions and in several high-risk countries. Elkem also interacts with government officials for permits and other administrative issues.

Elkem takes a risk-based approach to its compliance work, and the risk assessments provide vital information to maintain and further develop our anti-bribery and corruption programme. Our risk-based approach is applied across the group, i.e. when entering new markets and introducing new products. To read our full anti-corruption policy, visit Elkem's website. [↗](#)

Working with business partners

We know that bribery cases, human rights breaches, environmental disasters and EHS scandals often involve business partners, such as agents, consultants, suppliers, joint venture partners and distributors. It is important to Elkem to work with business partners of high ethical integrity. In 2021, Elkem introduced a new screening tool to facilitate better vetting and continuous monitoring of business partners against sanction lists and adverse media. The functionality of the tool will be expanded to enable risk based due diligence, audit target identification and monitoring of business partners throughout their lifecycle.

Speak up / whistleblowing

Elkem encourages all of its employees and external parties to report possible dishonest or illegal conduct in the business to HR or the legal/compliance department without carrying the risk of adverse reactions. Elkem has established grievance mechanisms and channels for reporting misconduct. The speak up channel can be used to report misconduct and non-compliance with Elkem's code of conduct and is available to all employees and external stakeholders. It allows for anonymous reporting in all Elkem languages with clear

guidance on reporting concerns. A reporter will not be required to leave a name or contact information. Elkem has also developed a procedure to escalate severe matters to management, the audit committee, and the external auditor to ensure that issues of concern reach top management.

Misconduct reports are handled by corporate compliance and in accordance with applicable legislation on misconduct reporting. Elkem has a zero tolerance for retaliation against those who report a concern and will sanction those who retaliate.

[The Elkem speak up policy ↗](#)

The speak up channel and the speak up policy are available and communicated through Elkem's intranet site, and corporate website. The channel and policy are also promoted during employee training and are accessible via physical posters and handouts at plants and offices.



KPIs

	Metric	2019	2020	2021
Average minutes of compliance training per employee*	Minutes / employee	TBC	54 minutes	28 minutes
Total number and nature of misconduct reports	Number	-	11 → Corruption and fraud: 11	13 → Company / professional code violation: 1 → EHS violation: 1 → Corruption and fraud: 1 → Human rights violation: 1 → Conflicts of interest: 1 → Inappropriate workplace behaviour: 7 → Sanctions violation: 1
Number of confirmed cases of corruption** and fraud	Number	-	3	0
Number of confirmed incidents in which employees were dismissed or disciplined for corruption**	Number	-	2	0
Public legal cases regarding corruption** brought against the organisation or its employees	Number	-	0	0
Confirmed incidents when contracts with business partners were terminated or not renewed due to violations related to corruption**	Number	-	0	0
Total number of cases reported through the grievance mechanism	Number	-	-	2 → Both cases were resolved
Employees with confirmed commitment to the code of conduct	%	100%	98%	96%
Employees with confirmed commitment to anti-bribery and anti-corruption policy	%	100%	51%	78%
Employees with confirmed commitment to competition law policy	%	100%	74%	89%

Due to organisational and reporting changes in 2020 and 2021, the reported categories have changed from 2020. The table reflects the current reporting structure in the company.

*2021 training included eLearning courses concerning ethics and Elkem's code of conduct, anti-bribery, and corruption, and antitrust. The courses were distributed to different risk-based target groups.

** In this context, corruption is defined as in GRI 205 and includes practices such as bribery, facilitation payments, fraud, extortion, collusion, and money laundering; the offer or receipt of gifts, loans, fees, rewards, or other advantages as an inducement to do something that is dishonest, illegal, or represents a breach of trust. It can also include practices such as embezzlement, trading in influence, abuse of function, illicit enrichment, concealment, and obstructing justice.

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