



Annual Review 2020

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Fundamentally stronger Kemira – our future journey towards sustainability transformation

2020 was a year of uncertainty and change for all due to COVID-19 and it required extreme agility, speed, sense of urgency and collaboration from our global Kemira teams. Ensuring the health and safety of all our employees, customers, suppliers and other stakeholders was and is our first priority at all times.

We are committed to the continuous supply of our products to our customers as they operate critical public infrastructure and manufacture goods that people need in their everyday lives. We ensure that health, environment, energy and food related value chains operate efficiently and we can deliver our crucial chemicals needed all around the world. 2020 brought a tremendous extra challenge to these operations, however, we kept our promises to our customers. We have been known to be problem solvers before and we again proved this to be true under very difficult circumstances. This was appreciated by our

customers, evidenced by the significantly improved customer satisfaction scores.

Our financial performance in 2020 was excellent despite the challenging conditions. Our revenue in 2020 was impacted by the economic slowdown, however, our profitability and cash flow remained strong. Our business showed resilience, our new investments started to bring in benefits and our cost management was efficient. We have taken a lot of actions in recent years to strengthen Kemira's foundation and these actions were visible in our 2020 performance.



We also updated our financial targets and dividend policy during 2020. Our aim is to pay over-time increasing dividends to our shareholders.

We are now a fundamentally stronger company. This has required systematic strategy execution from the whole Kemira organization. Our careful growth investments have increased our capacity, we've completed acquisitions to consolidate and to strengthen our product portfolio and other capabilities, we've improved operational efficiency in many places and have also closed some operations to create more efficiencies.

We continue on our path to sustainable profitable growth towards the future. Our updated long-term strategy is driven by sustainability transformation of our customer industries, digitalization and regulation.

Our ambition is to be the leading provider of sustainable chemical solutions to water-intensive industries. We want to serve our customers better and create more value to the societies we operate in. Our science and innovation in more sustainable chemistry will help us achieve these objectives. We take our responsibility seriously and are committed to ambitious sustainability targets going forward.

Challenging issues are usually best solved in a team through collaboration. We have done this very successfully in 2020. Our global teams have truly owned the challenges and showed extraordinary resilience and leadership in making the impossible happen, over and over again. I am very proud of what our Kemira team has achieved together this year. I want to also warmly thank our customers and other stakeholders for their continued trust in us.

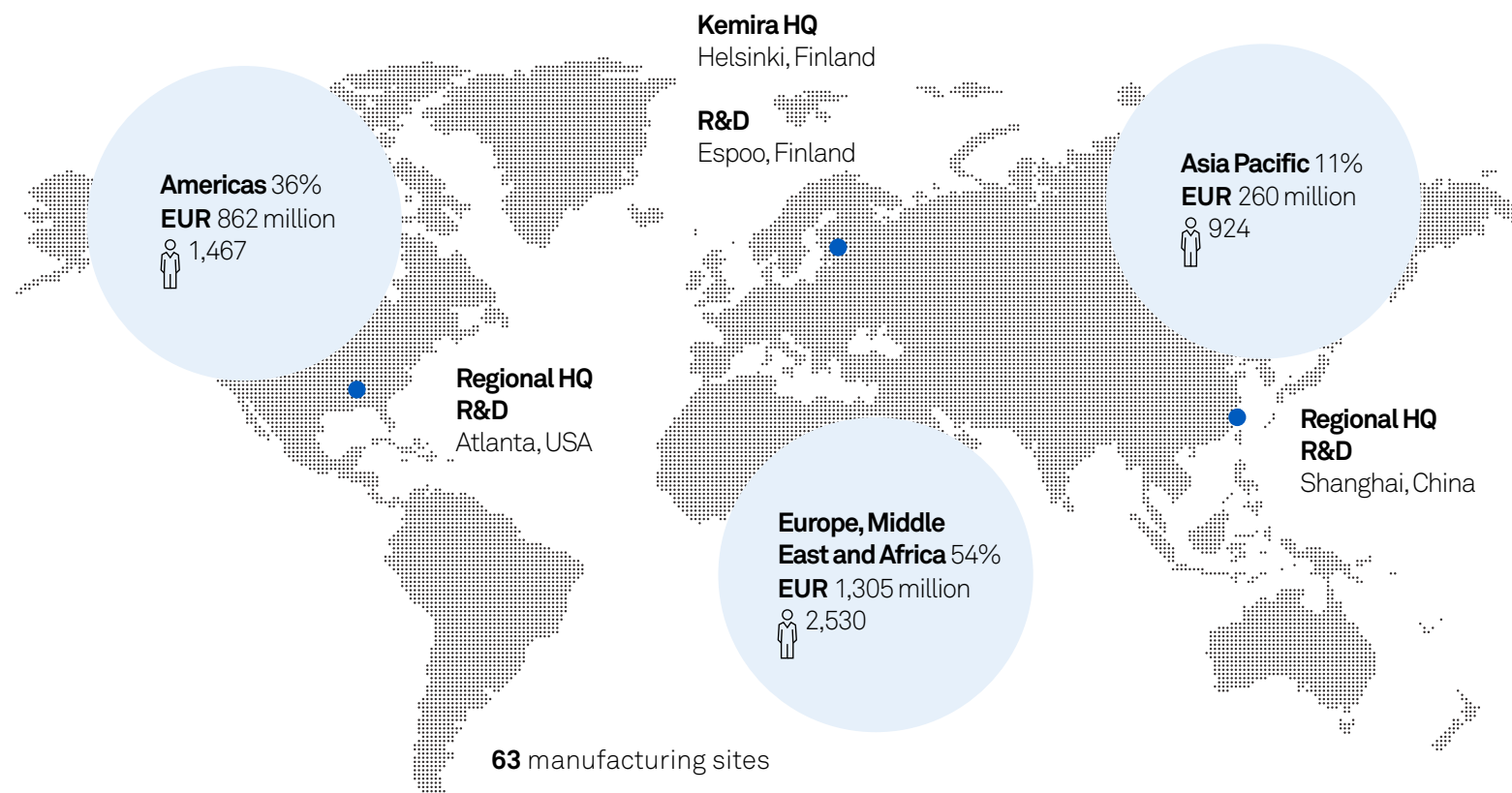
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Ensuring the health and safety of our employees, customers and other stakeholders is our first priority

While I hope we are finally approaching more normal times in pandemic management in the coming months, I am convinced that what we have learned in 2020 will help us to build a better and more sustainable future together with our employees and our customers.

JARI ROSENDAL
PRESIDENT AND CEO

Key figures 2020



Revenue, EUR
2.4
billion

Operative EBITDA, EUR
435
million

Operative EBITDA margin
17.9%

Earnings per share, EUR
0.86

Total employees
4,921

Kemira strategy 2030 – Towards sustainability transformation

SUSTAINABILITY IS AN INTEGRAL PART OF OUR STRATEGY

Kemira aims to become a leading provider of sustainable chemical solutions in water-intensive industries. We will also support our customers to reach their sustainability ambitions.

As the world around us keeps changing, we must keep up and ahead of change. We need to understand our customers, their needs and expectations and what we can do to enable better and more sustainable business for them and for Kemira.

INDUSTRY & WATER

Industry & Water supports water intensive industries to improve their process and resource efficiency.

In water treatment we help optimize various stages of the water cycle. In oil and gas applications we enable reduced water and energy use and efficient oil sands tailings treatment.

We will increase focus on water intensive customers. New growth areas will be considered for market entry within the water sectors.

PULP & PAPER

Pulp & Paper operates globally, offering a full portfolio to the pulp & paper industry, from pulp to surface treatment.

We sell expertise, application know-how, and chemistries that improve our customers' sustainability, product quality, process and resource efficiency.

Growth from fiber-based applications and biobased materials, pulp, board, packaging and tissue, barriers being the key growth market. Recyclability and degradability is important. Kemira will focus to growing areas.

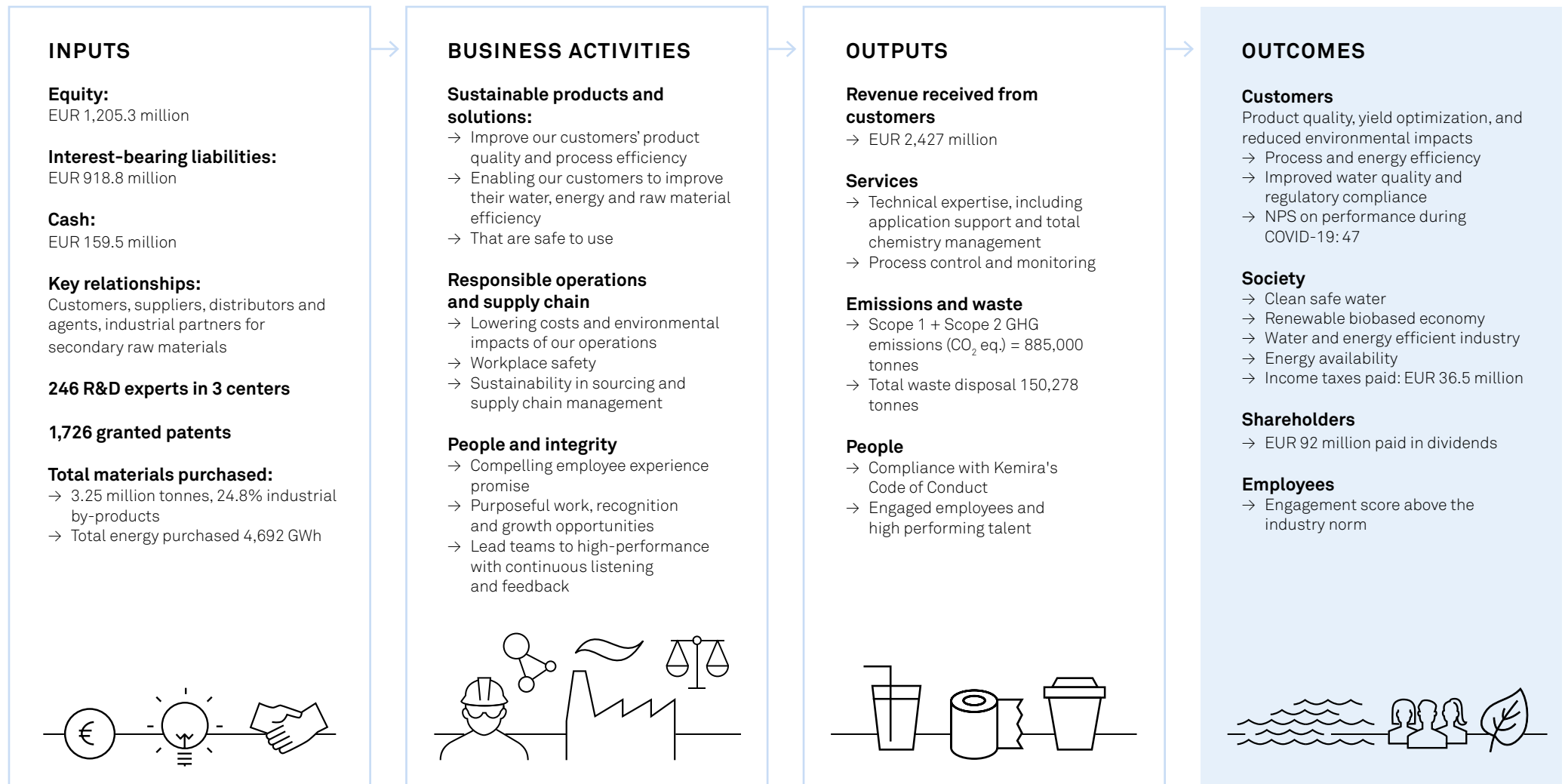
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Kemira will become the leading provider of sustainable chemical solutions for water-intensive industries.

- JARI ROSENDAL, PRESIDENT & CEO

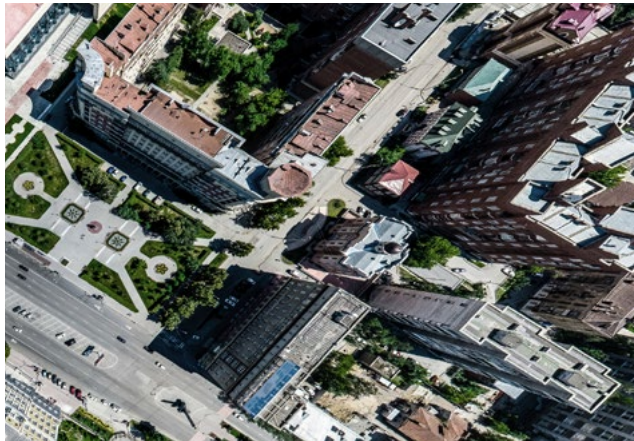
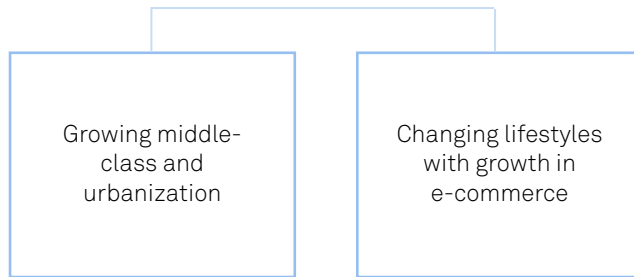


Business model



Two major global trends create increasing demand for Kemira's solutions

CHANGING DEMOGRAPHICS



Drives increased use of water, hygiene products, packaging and board.

GROWING ENVIRONMENTAL AWARENESS



Drives need for chemical solutions that improve energy, water and raw material efficiency. Increased demand for water treatment and alternatives to fossil-fuel based solutions.

Why our partners choose Kemira

Our deep R&D and application knowhow, secure supply network and complete technology portfolio are some of the reasons why we are a safe, efficient and sustainable partner.

CHEMISTRY EXPERTISE

Our world-class chemistry expertise is supported by R&D centers in Europe, North America and Asia. We work together with customers, suppliers and research organizations to provide cutting-edge solutions that can be applied to solve customers' and societies challenges.

SUSTAINABLE SOLUTIONS

Our R&D experience and commitment to zero harm to people and the environment mean that we are constantly developing more sustainable solutions, be it through enhancing energy efficiency, using less harmful substances or capturing micropollutants from wastewater streams. We can help partners understand and address the societal challenges of today and tomorrow.

RELIABILITY

We are there when you need us. Our global presence and experience across water-intensive industries allows us to provide unique analysis and insight for our customers. We also provide our customers with peace-of-mind and reliability through dealing with a mature company that can respond to their needs and ensure safe operations.

SHARED VISION

Our focus is just as much on saving cost for customers as helping deliver a positive impact in society. As a global company we share a vision of building sustainable societies.

Kemira is more than a great product company, we are the partner of choice to deliver innovation into global markets.

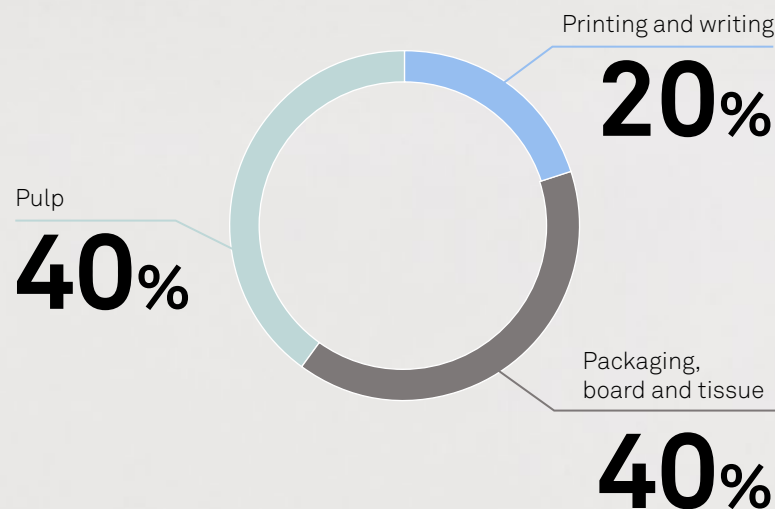


PULP & PAPER

Leading global chemical provider to the growing pulp and paper industry

Paper and board, sustainable natural products based on renewable raw materials, have a bright future in a wide variety of applications and end uses. Global megatrends, such as urbanization, digitalization and growing middle class are shaping the pulp and paper industry. We work in close cooperation with industry-leading companies to address these trends, and the evolving needs and opportunities. Combining best-in-class application expertise, latest technologies for smart process management and a complete chemistry portfolio, we help customers improve their sustainability, process efficiency, productivity and end-product quality.

KEMIRA PULP & PAPER CUSTOMERS



WE SERVE OUR CUSTOMERS ACROSS FOUR MAIN APPLICATIONS

BOARD

High quality packaging board both protects a wide variety of products and promotes brands in the best possible way. This requires properties such as strength and stiffness, lightest possible weight as well as superb printing and converting of the package. With liquid packaging and food service grades, strict standards for hygiene and cleanliness must be met. We offer industry-leading chemistry expertise to help board manufacturers achieve all these qualities.

TISSUE

Strength, softness and absorbency are the required properties for many tissue products. We analyze customers' processes to introduce the desired functionality into the sheet with the help of chemistry. We also help reduce costs for raw materials and energy, and help with the hygiene and cleanliness of operations.

PULP

There's always room for improvement in any pulp line or bleaching operations. Kemira offers targeted chemistry and application know-how that can help squeeze more efficiency and profitability out of processes. Extensive R&D and application knowledge throughout the entire papermaking process helps customers with pulp quality and environmental performance.

PAPER

Great opportunities exist in the paper business to use chemistry for competitive advantage. On the cost side, this includes fiber substitution where strength aids and binders allow the use of cheaper fibers and fillers. In operations, cleaner machine water systems can increase uptime and sellable tonnes. And to meet the fast-developing 'Future of Paper', new binder, coating, and strength chemistries support developments such as digital, 3-D and on-demand printing.

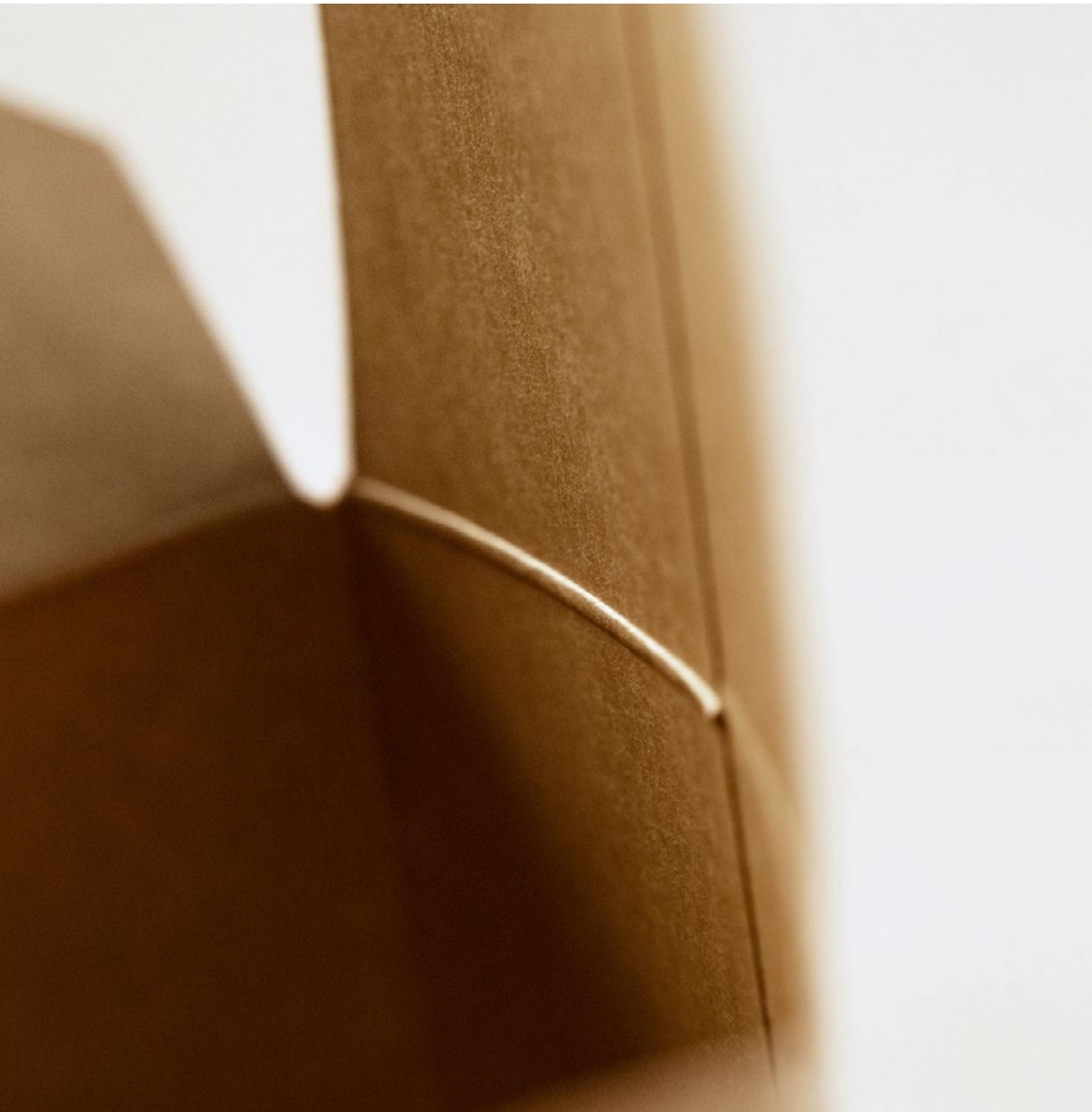
OUR AMBITION

We will continue to meet the needs of our changing society. A focus area is to work with our customers in accelerating the shift towards a bio-based economy. This includes developing more bio-based products to replace the use of fossil fuels and plastics. Recyclability and degradability will continue to be important.

But our desired impact is not limited to climate action and waste reduction. We will continue reducing our own negative footprint and help improve customer resource efficiency in other areas such as water, raw materials and energy.

Our ability to reduce costs, capture new business opportunities and deliver sustainability positions us well to continue delivering value for Kemira and our customers.





CASE

TOWARD 100% RENEWABLE SIZING

As brand owners are making pledges to improve the sustainability of their packaging, paper and board producers are seeking alternatives to fossil-based raw materials. In 2020, Kemira introduced a novel internal sizing chemical for paper and board applications. It's made from renewable sunflower oil instead of fossil-based olefins and supports paper and board producers in their goal to increase the share of renewable raw materials. This is an important step in enabling the use of fiber-based packaging to replace single-use plastics, but it has not been easy.

TOUGH REQUIREMENTS

There are strict hygiene standards that apply to materials in contact with foods. This is where Kemira's excellent tracking and understanding of regulation has come in. At the same time, food packaging needs has tough quality requirements such as preventing grease or liquid from seeping through the material.

INNOVATIVE SOLUTIONS

Finding the right chemistry and a sustainable bio-based raw material has required a dedicated team of experts from R&D, working closely with our customers through sales. It is through a commitment to our customers and sustainability that we have been able to harness Kemira's expertise in chemistry to provide necessary solutions to global markets.

Kemira also joined 4evergreen in 2020. This is an alliance formed by CEPI, the European association representing the paper industry, to promote the role of fiber-based packaging in a sustainable, circular economy. Tackling a global challenge such as replacing fossil fuel-based materials will require collaboration across the value-chain, and 4evergreen brings us together with all the right actors to find and promote these solutions.

INDUSTRY & WATER

Strong market positions in chosen categories

We're putting more demands on our water resources all the time. The more we produce, manufacture, consume, and throw away, the more water we use. How can we replenish the water cycle and keep up with our growing needs?

To help water treatment plant operators do this while optimizing the Total Cost of Ownership, we work in close cooperation with customers to reduce expenses for energy, labor and chemicals, while safely achieving the targeted water quality.

From food production to the energy industry or metals and mining, we also help water intensive industries to improve their process and resource efficiency, contributing to the end-product quality. In oil and gas applications, our chemistries enable improved yield from existing reserves and reduced water and energy use. Water treatment is an important part of all our customer industries, as raw water, process water, and wastewater need to be appropriately managed, in the most cost-effective way. Sludge treatment offers opportunities for further efficiencies and for creating value from waste.

INDUSTRY & WATER APPLICATION SPLIT



WE SERVE OUR CUSTOMERS ACROSS 4 MAIN APPLICATIONS

RAW WATER

Drinking water producers are faced with deteriorating quality of raw water, as well as tightening regulations. With Kemira's R&D and technology expertise, we can help to meet the requirements for safe drinking water. Our reliable and responsible supply chain ensures the peace of mind municipalities need for steady delivery.

WASTEWATER

Effective wastewater treatment plants are vital around the world. They face tight operating budgets, tighter regulation, and are constantly looking for ways to improve efficiency. Chemicals can bring substantial energy-savings in the wastewater treatment process. Our unique range of water treatment expertise and products offer solutions to all wastewater challenges.

INDUSTRIAL WATER

Each process water system is different and requires customized products, depending on the water quality, branch of industry and process parameters. With the right technologies, water can be reused through several cycles. We help customers optimize the total cost of process, with lower energy and water consumption, and keep equipment running reliably with less maintenance required.

OIL & GAS

Oil and gas producers are searching for ways to produce more with less. Our operations in shale and conventional oil recovery are designed to help operators produce more with less resources. In oil sands, Kemira's water treatment expertise and know-how from oil and gas customers creates a unique market position. We add value to customers' mandatory tailings treatment process.

OUR AMBITION

Our customers are diverse, yet they look for many of the same qualities from our products: safety, resource efficiency and solutions that are future proof for regulatory requirements driven by sustainability.

This is why our new product development focuses on making our customers ever more efficient and saving them costs. But we don't stop there, instead we are going beyond this to improve renewability, recyclability and biodegradability of wastes or end products.

We are also developing safer formulations and constantly looking for opportunities to replace substances of concern.





CASE

PHOSPHOROUS REMOVAL

Eutrophication is the presence of excess nutrients which can create algal blooms that deplete the oxygen in the water when it biodegrades, affecting life below water. As phosphorous is the key nutrient causing eutrophication it's vitally important that it is removed from wastewater as efficiently as possible. As such, regulations on allowable discharges are tightening.

OPTIMIZED DOSAGE

We have developed a smart digital platform for data-driven chemistry application – the Kemira KemConnect™. One of the modules we offer is designed for real-time phosphorus optimization.

This platform automates and optimizes dosage of our products to ensure phosphorous is captured but also avoids unnecessary chemical use.

BENEFITS

Using this type of advanced chemical solution allows our customers to save costs through reduced energy and chemical use but can also be scaled up easily to avoid new capex investments in a wastewater treatment plant. This solution also helps tackle climate change by improving biogas recovery and being more effective at removing water from sludge which reduces energy and emissions needed to transport sludge.

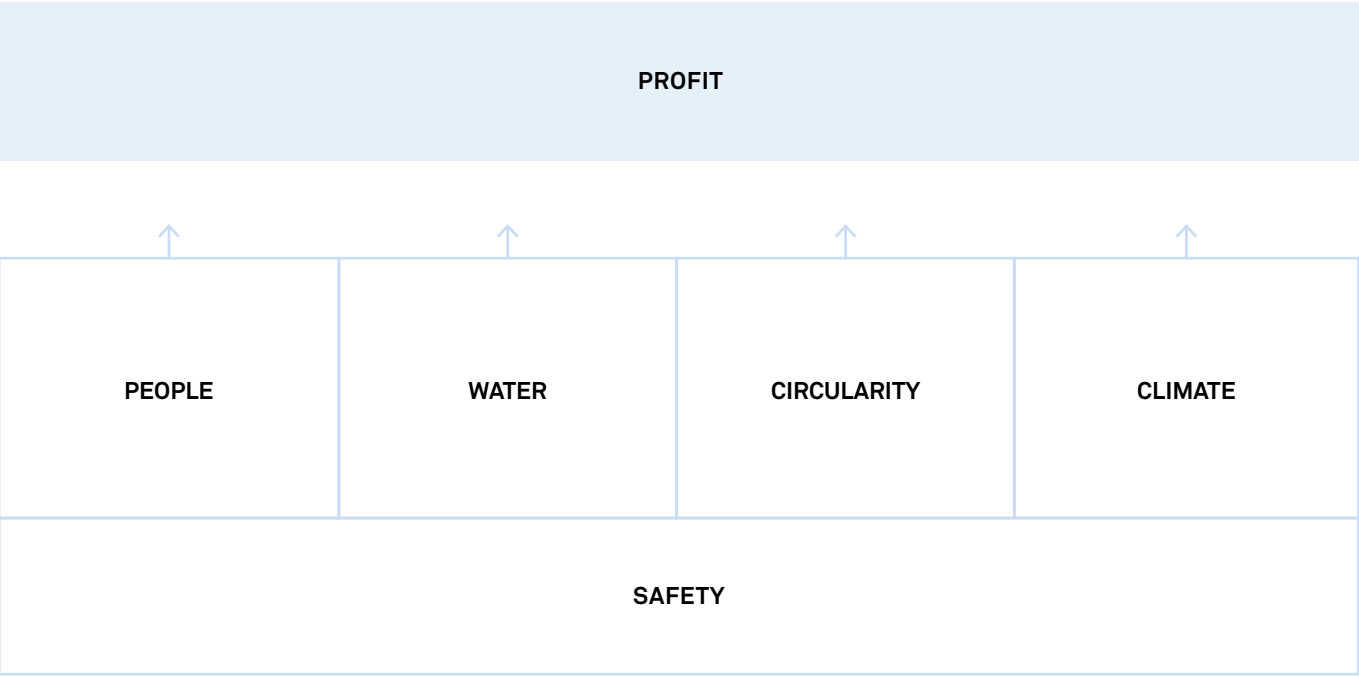
Backed by 100 years of experience, this example of our many solutions for water treatment and circularity is a valuable tool in helping others meet their increasing water quantity and quality issues.

In 2019 alone, Kemira's solutions enabled the treatment of 21 billion m³ of water, equivalent to the annual consumption of 372 million people.

Sustainability is at the heart of our strategy

We provide sustainable chemical solutions for water-intensive industries. We enable more sustainable processes and products for our customers. Together we are building more sustainable societies.

OUR FOCUS



Companies that integrate sustainability into their strategy are more resilient and stand to gain the most from a changing business context that prioritizes sustainable solutions.

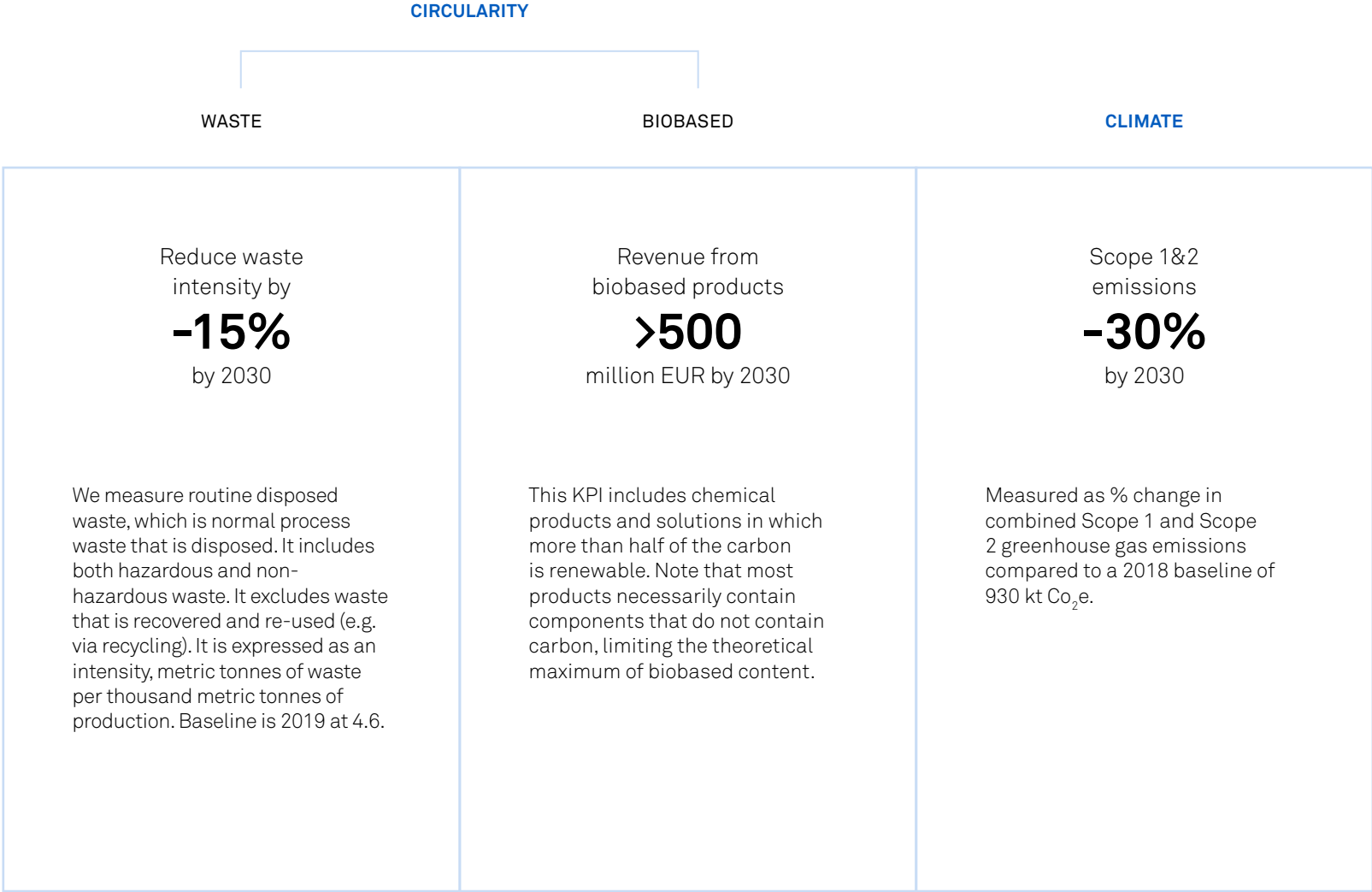
We have chosen to prioritize five themes to best match our businesses and customer segments. These are also the five themes where we can make the biggest difference: either by reducing our negative impacts or maximizing our positive contributions to achieving the UN Sustainable Development Goals (SDGs).

This approach to sustainability goes beyond regulatory requirements and industry expectations. Instead, it will position us and our customers to maximize our contribution to building a sustainable and prosperous society – by having a positive impact on our people, our supply chain and the communities within which we operate.

Given business momentum behind the common vision created by the SDGs, the most sustainable companies are set to be the most successful. That is something we are proud to be striving for – every day in every role.

Our targets

SAFETY	PEOPLE	WATER
<div>TRIF</div> <div>1.5</div> <div>by 2025 and 1.1 by 2030</div> <div>Total Recordable Injuries (TRI) includes permanent injuries and fatalities, lost time incidents, restricted work cases and medical treatment cases covering Kemira employees and contractors working at Kemira sites. TRI Frequency (TRIF) is measured as Total Recordable Injuries per million working hours.</div>	<div>Diversity &</div> <div>Inclusion</div> <div>Reach top 10% cross industry norm for Diversity & Inclusion by 2025.</div>	<div>Continuously</div> <div>improve</div> <div>freshwater use intensity</div> <div>Fresh water use intensity is defined as m³ water withdrawn minus cooling water use per ton of production. Baseline is 2019 at 1.9m³ per metric tonnes of production.</div>



Safety

We are committed to operating safely, responsibly and reducing our environmental impacts.

We ensure the safe production and use of our products throughout their lifecycle.

Safety is the foundation of everything we do: Our business depends on our ability to operate processes at our manufacturing sites safely, transport high quality products to customers on time and without incident, ensure our customers understand how to handle our products and that the final consumer product is safe to use.

We recognize that a break anywhere along this chain has the potential to harm people and the environment. That's why safety has always been a central focus in Kemira and our improved performance is testament to our capability and continuous focus.

As best-practice evolves and new innovations are made, we want to put these to use across our activities in a process of continuous improvement.

- Total number of TRIs in 2020 was 31 and TRIF was 2.2 which is slightly above target 2.0
- Number of reported safety observations 20,875 and BBS surveys 12,600 with 316,000 individual BBS
- "MySafety Pulse" - Safety Culture Survey was conducted to all Kemira employees in 2020. In comparison with previous survey in 2016 we have taken significant step to improve our safety culture and safe ways of working
- K-REACH registration work has started in South-Korea and required substances have been pre-registered in Turkey
- Kemira has provided information on two substances so far for US EPA risk evaluations under TSCA
- Management plans for substances of concern has been done for 12 substances during 2020 and totally 47 approved plans are available



2020 KPI result

TRIF: 2.2

Target: 1.1 by 2030

HIGHLIGHTED ACHIEVEMENTS IN 2020

- TRIF throughout 2020 remained consistently low. Even though we did not reach our 2020 TRIF goal of 2.0, the year-over-year consistency supports our view of continuing to drive our future goals lower
- MySafety Pulse result: The overall score was 90 in the key outcome question “Ensuring safety is part of the way we do things around here.” 92% of responses were favorable

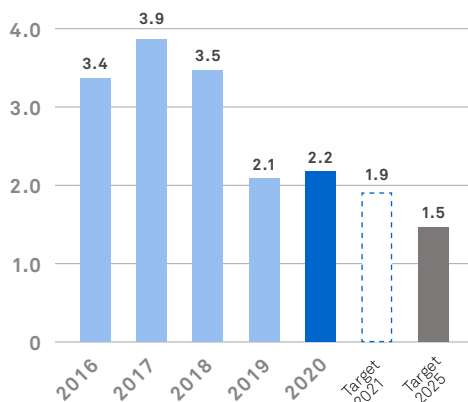
- COVID-19: Protecting People – We were able to secure PPE, masks and safe working conditions at our sites in this challenging situation
- Regulatory themes included in customer webinars, being able to support customers in an environment of changing regulations (e.g. food contact materials)
- Priority Substance management plans enable us to act proactively to changing requirements and stakeholder expectations. Our priority substance management plan aims to define the risks associated to each substance,

examine options for managing these specific risks, and formulate action plans for the preferred options. These options to mitigate risks may include (e.g. substitution, phase-out or limiting exposure).

THE NEXT BIG THING IN PROGRESS

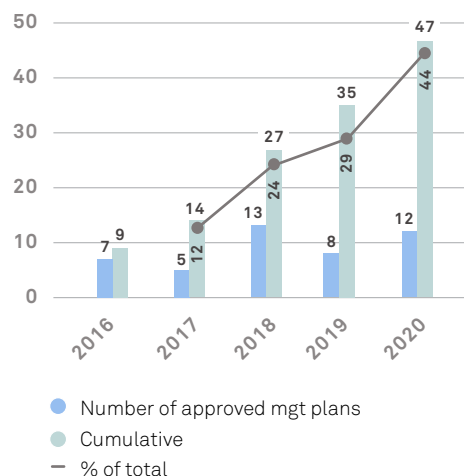
Kemira is in the process of refreshing of existing Behavioral-Based Safety (BBS) program. 2021 plans include the roll-out of an updated BBS pilot program, to allow for the continuous safety improvement at our sites.

OUR SAFETY PERFORMANCE (TRIF)



TRIF: Total Recordable Injury Frequency per million hours

NUMBER OF PRIORITY SUBSTANCES HAVING APPROVED MANAGEMENT PLAN



Kemira's Priority Substance List includes substances found in Kemira's portfolio either as raw materials or final products in a concentration >0.1%. It includes listed substances in SVHC, REACH annex XVII, CoRAP, California Proposition 65, SIN, OSPAR, ECHA and EPA Endocrine disruptors, TSCA 2014 work plan and Conflict mineral lists

CASE STUDY

Like many organizations, in 2020 Kemira had to deal with the potential effects of COVID-19 not only its operations, but also the potential effects this global pandemic could have on the personal lives of our employees and their families. This year has shown the Kemira is ready to response to these extraordinary challenges. Kemira provided the needed PPE and masks, screening of employees and visitors arriving to our sites, reorganization of workforce to ensure operations and production of essential products, coordinated communication to support the health of our employees and contractors at our sites or at customer locations, employee wellbeing programs, formal quarantine protocols, and proactive planning structure to allow for the ever-changing effects of the pandemic. Throughout the entire Kemira family, we stayed focused on the needs of our essential workers, their families and the communities we serve.

People

At Kemira, we care for our people. Ensuring the health and safety of all our employees and customers, suppliers and other stakeholders is our first priority at all times and has been a major focus area due to COVID-19 in 2020. Our organization and people drive our business and growth. We have an active role in the communities in which we operate.

Kemira is a truly global company and our people come from very diverse backgrounds. We offer our employees the right mix of opportunities and challenges in a global and dynamic working environment. Our culture is collaborative and we foster a sense of belonging that empowers our people to make a real difference through innovation and sustainability. We listen to our employees' feedback throughout the year and take action on key themes identified.

We have now set an ambitious diversity and inclusion targets to further demonstrate our commitment to our diverse workforce and aim to be among the top companies across industries by 2025. It will be measured as our employees

perception of diversity and inclusion. We will build a roadmap for our organization to take the next steps in diversity and inclusion and ensure our people can continue to learn and grow, be comfortable being themselves at work, experience that our leaders value different perspectives at work and employees have a strong sense of belonging at Kemira.

Solving tomorrow's challenges together gives our people purpose. By treating everyone with respect, holding ourselves to the highest standards of ethics and acting with integrity, we have a positive impact in our supply chain and in the communities around us. This unlocks new opportunities and protects us from risks.

Reach top
10%
cross industry norm for
Diversity & Inclusion
by 2025



HIGHLIGHTED ACHIEVEMENTS IN 2020

- We continued our business operations during COVID-19 pandemic with high safety precautions in place at manufacturing sites and adopted quickly full remote working mode for office workers enabled with digital tools
- Company loans were offered to employees in order to support their families facing possible financial struggles due to COVID-19

- All our learning and development programs were delivered in digital and virtual mode
- Strong results in MyVoice employee engagement survey for inclusion and all items were above the external manufacturing norm where available (e.g. in authenticity, belonging, equal opportunities and inclusive leaders)
- Future competences program continued as part of Must Win Battles (88% of commercial employees actively participating versus target 75%) and manufacturing competences defined

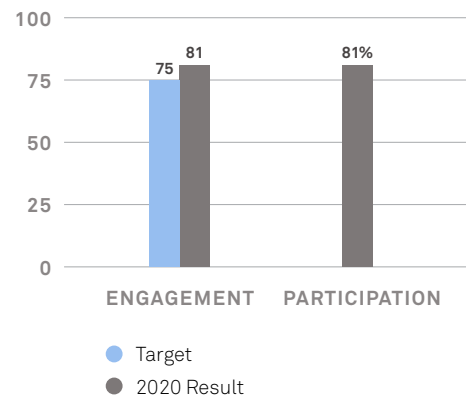
THE NEXT BIG THING IN PROGRESS

- Design and launch future digital workplace frame
- Further build diversity & inclusion in everything we do
- Design and launch our new leadership framework
- Launch future competencies learning paths for sustainability
- Launch digitalized performance and development discussion for operational employees



EMPLOYEE ENGAGEMENT SCORE BASED ON MYVOICE SURVEY

Engagement score above the external industry norm.



CASE STUDY

Kemira HR professional have had a key role ensuring health, safety and wellbeing of our employees during the COVID-19 pandemic. Wellbeing programs were designed and implemented in all regions, emphasizing the importance of a good balance in life including mental well-being. High emphasis has been put to active employee communications and campaigns, cross-functional collaboration as well as people manager support throughout the year. Employee engagement developed positively again in 2020. We have smoothly rolled out learning solutions and digital workplace solutions to broader Kemira community. The future of work is already our everyday with the high adoption rate of the new solutions and ways of working.

Water

We serve water-intensive industries, and our solutions help make more clean, safe water available to everyone.

Clean water is essential not just for life itself, but for making sure we can live high-quality, enjoyable lives.

Only 3% of the earth's water is fresh, and an even smaller percentage of that is available for drinking. At Kemira we see our role as a custodian of this valuable resource because we have the products and ability to help make the most of this finite resource.

It's estimated that worldwide, 780 million people do not have access to an improved water source, and an estimated 2.5 billion people, or more than 35% of the global population, lack access to improved sanitation.

As a single company we can't tackle this problem on our own, but through collaboration with our customers – cities

and municipalities, and water-intensive industries – we can make a real difference.

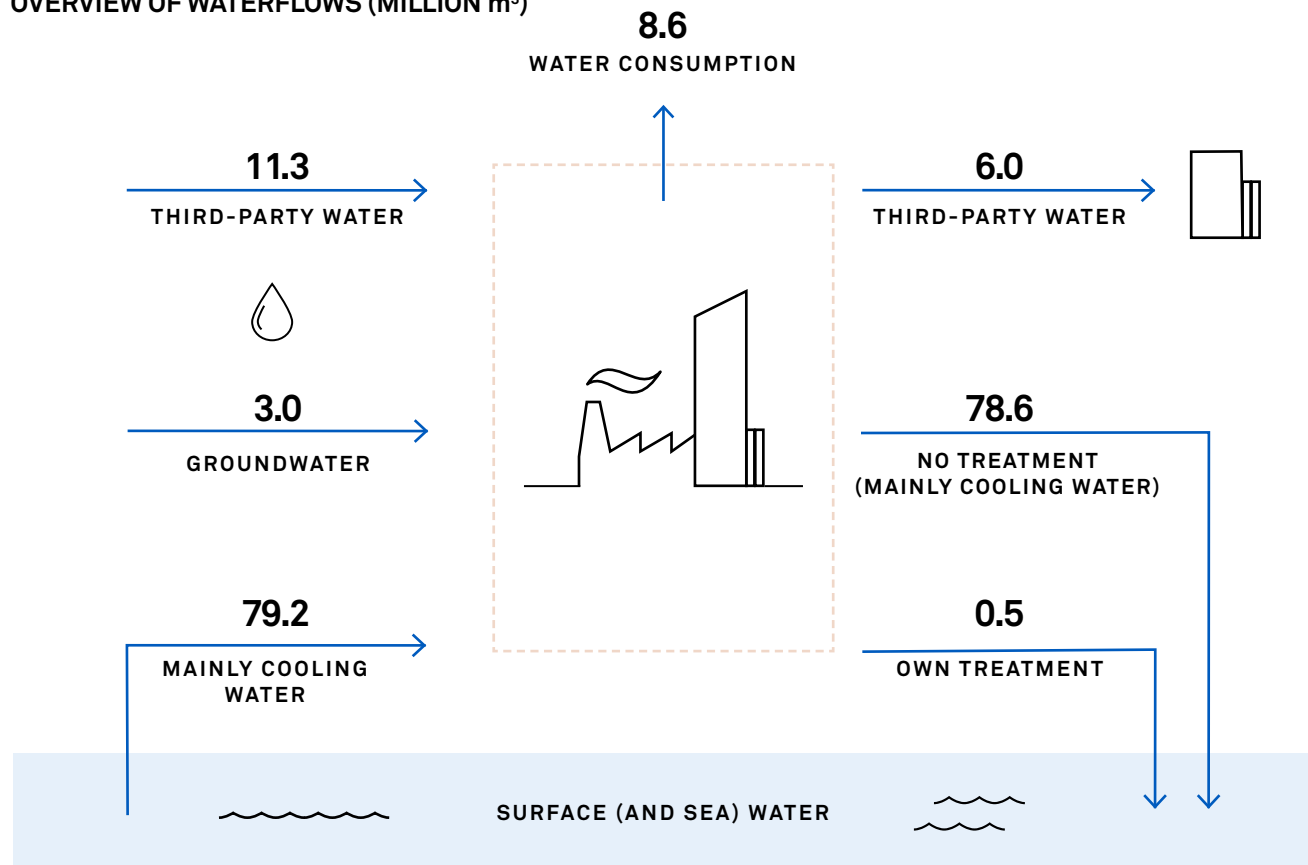
In our own operations, we are continuously evaluating opportunities to decrease water withdrawal, consumption, discharge, and associated impacts through water recycling and reuse.

Kemira's target is to continuously improve freshwater use intensity. Fresh water use intensity is defined as m³ water withdrawn minus cooling water use per ton of production. Baseline is 2019 at 1.9 m³ per metric tonnes of production. Fresh water use intensity in 2020 was 1.9 m³ per metric tonnes of production.



Continuously
improve
freshwater use
intensity

OVERVIEW OF WATERFLOWS (MILLION m³)



HIGHLIGHTED ACHIEVEMENTS IN 2020

- As part of our continuous evaluation of risks and opportunities related to water, we answered to CDP Water Security questionnaire for the first time in 2020
- We continued work on our global water risk assessment by updating our risk assessment based on World Resources Institute's Aqueduct Water Risk Atlas and conducted internal water risk assessments at the eight sites located in areas of water stress

THE NEXT BIG THING IN PROGRESS

- We will continue the global water risk assessments with external site-specific water risk assessments at high risk sites and internal assessments at all sites
- We have also evaluated opportunities to decrease water withdrawal, consumption, discharge, and associated impacts and discussion on public quantitative target for decrease of freshwater use is ongoing

Circularity

We are committed to enabling a biobased circular economy and adopting circular business practices across our own operations.

Kemira is in the business of innovating in chemistry to solve problems for our customers and society. This includes resource scarcity and consumption. As global consumption grows, this puts increasing pressure on our planet and resources.

To decouple growth from consumption we need to adopt a circular mindset where we design out waste and increase resource productivity.

We can reduce unnecessary costs by reducing the amount of waste we generate. At the same time, sourcing industrial by-products has the potential to both reduce our raw material costs and alleviate pressure on natural resources.

As the fundamental drivers for sustainability shape our market, our products will increasingly be based on renewable, recyclable or bio-based building blocks.

We are establishing a new biobased roadmap & strategy for Kemira and will gradually move from fossil-based carbon to renewable carbon in our own product portfolio. By 2030 over EUR 500 million revenue will come from our biobased products. We will also continue to improve our own use of recycled raw materials (currently 24%).

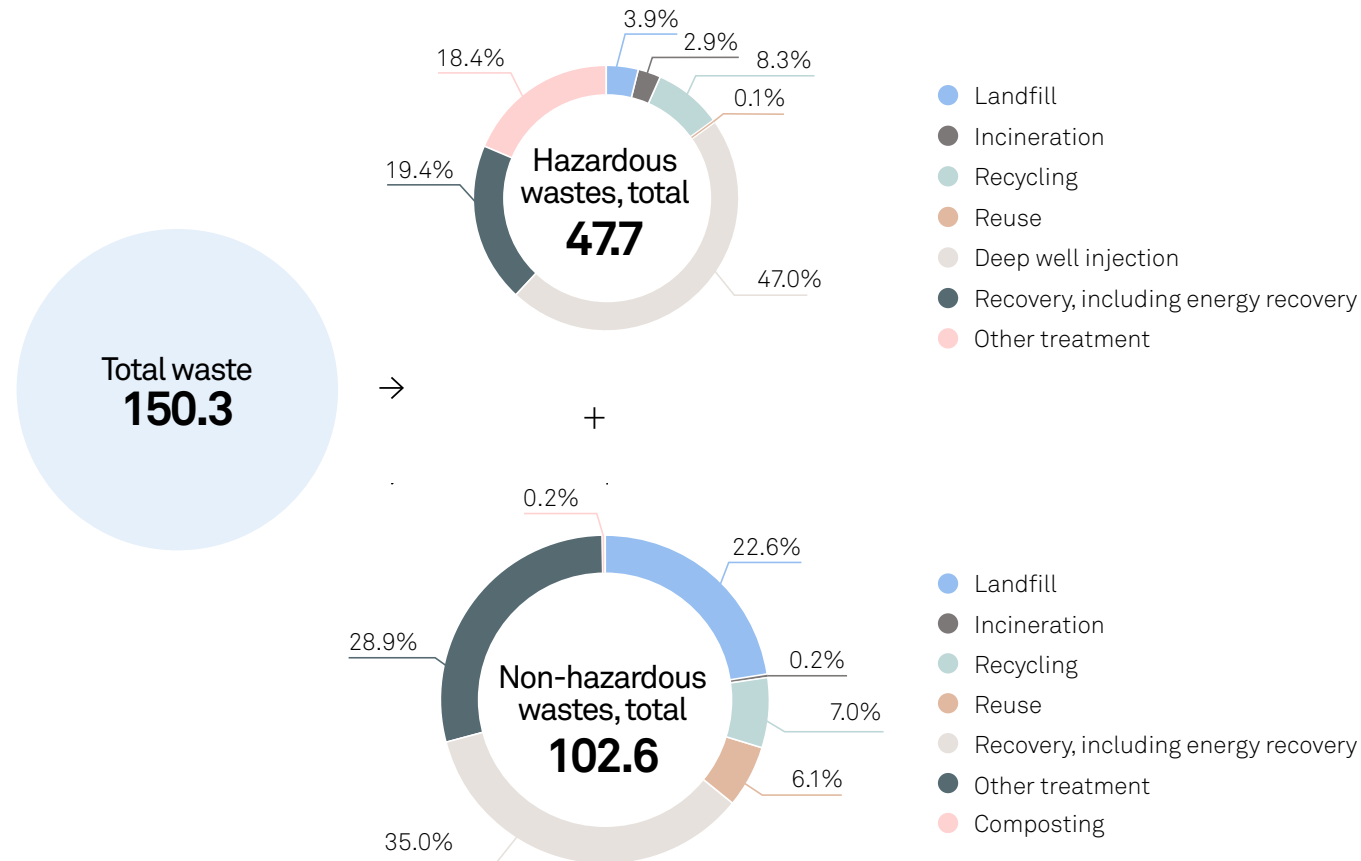
By 2030, achieve
>EUR 500 M
revenue from
biobased products

Reduce waste
intensity by
-15%
to 3.9 by 2030



TOTAL WASTE BY TYPE AND DISPOSAL METHOD (OFFSITE)

1,000 tonnes



HIGHLIGHTED ACHIEVEMENTS IN 2020

For all new R&D projects we carry out sustainability assessments, which are re-evaluated at each gate. Our sustainability evaluation examines the economic, environmental and social impact of any new product, both in Kemira's operations and in our customers' operations.

CASE STUDY

In 2020, we also helped avoid emissions by providing 390 GWh of our excess heat to companies and communities around our manufacturing sites.

A good example is our site in Helsingborg, Sweden, where we have led the design of shared infrastructure and collaboration across co-located companies. This model of industrial symbiosis has shown impressive results.

The backbone is Kemira's sulfuric acid plant that delivers energy created in an exothermic process. Today, Kemira's operations provide 60% of the industrial park's energy needs. 30% of the energy goes beyond the fence line and is delivered to the city's district heating network saving about 1.6 million tonnes CO₂ cumulatively.

Climate

Our long-term ambition is to be carbon neutral by 2045 and Kemira fully supports the ambition of the UNFCCC Paris Agreement.

Climate change is a defining challenge for our time. Failure has the potential to devastate ecosystems and societies. In contrast, success can put the world on a path to sustainability with multiple co-benefits beyond simply greenhouse gas (GHG) emission reductions.

There is now broad support across stakeholder groups for action towards the vision of the Paris Agreement and the transition is accelerating. This creates opportunities for the companies that take ambitious action.

Kemira is intent on positioning our business for success in this changed business context. We recognize our contribution to the collaboration needed to ensure the accelerated deployment of solutions.

**30%
reduction**

of GHG emissions
by 2030 (Scope 1
+ Scope 2)

This is why we have set a target to reduce combined Scope 1 and Scope 2 GHG emissions by 30% by 2030 compared to a 2018 baseline of 930 kt Co₂ e.

When setting our recent target, our modelling showed a 4% increase in GHG emissions from 2018 to 2020, followed by sharper declines by 2030.

Despite headwinds, such as the delayed commissioning of Olkiluoto 3 nuclear power plant in Finland, we have managed to avoid the increase and even slightly reduce our emissions.

We continue to benefit from energy efficiency projects. Sourcing new renewable power has begun, and we engaged our electricity suppliers on the issue in markets where we are captive customers.

In addressing Scope 3 emissions, we implemented the Global Logistics Emissions Council's (GLEC) Framework, resulting in much more accurate outbound logistics data including insights on emission reduction options.



In 2020, we signed a 10-year renewable power purchase agreement for 5MW (43,8 GWh per annum) baseload electricity. This deal increased the percentage of zero-emission energy purchased for Kemira's operations in Finland from 28 to 34%.

To support investments in line with Kemira's target, we implemented an internal carbon price in 2020.

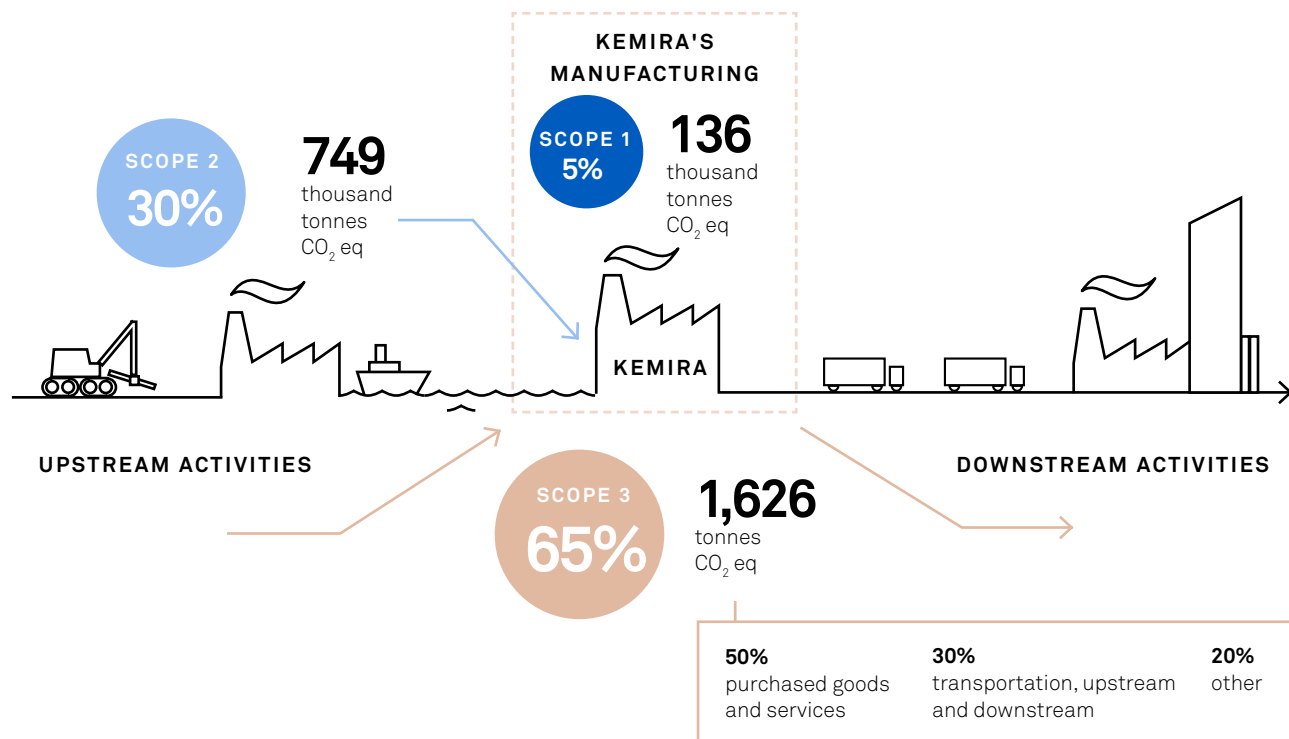
All CAPEX projects with a value over EUR 0.5 million, must carry out a financial sensitivity analysis using EUR 20 or 50 per ton of CO₂ eq.

In 2020, Kemira also started a project to update and expand our product carbon footprints. The updated values show significant benefits from our steadily declining carbon intensity of energy as well as switches to renewable and recycled raw materials.

The key solutions allowing us to reduce GHG emissions include: sourcing zero-emission electricity, switching to renewables for our sites, electrification of processes at our sites, and energy efficiency.

Our programs to reduce waste and accelerate a switch to biobased raw materials will also have a positive impact on our Scope 3 emissions.

GREENHOUSE GAS EMISSIONS



CASE STUDY

In 2020, we launched our updated climate target externally. The analysis work was carried out in 2019, with a final decision in Q4.

To arrive at an ambitious target, we carried out a techno-economic assessment of all mitigation options. From these, we selected the most relevant (e.g. excluded offsets) and modelled their relative economic merits and likely availability across five-year periods up to 2050, also split geographically.

We also collected benchmarking data on our peers, customers and Science-Based Targets initiative methodologies.

With this information, Kemira was able to set an ambitious target and profitable pathway aligned with stakeholder expectations.

Our customers' customers

WE ASKED CONSUMERS ABOUT FOOD PACKAGING

According to an international consumer survey commissioned by Kemira, over half of the respondents said they would be willing to pay more for food packaging if it was made from renewable materials. Also, the majority of respondents were hoping to reduce the use of plastic in their lives. The survey was conducted in Germany, the United States, China and Finland.

When it comes to the features of food packaging, the key consumer priorities across all markets relate to the hygiene and leak-proof properties of the container, but packaging material itself is also considered important. 85% of the Chinese, 55% of the Germans, 46% of the US citizens, and 44% of the Finns respond positively to statement "I'm willing to pay more for renewable packaging in food (such as carton or other bio-based materials)".

Many are recycling their packaging already: around 80% of the Finnish and German respondents said they always recycle carton products. In the United States and China, about 40% of respondents said they always recycle carton. In all other countries apart from the USA, plastic is much less frequently recycled.

The global discussion on plastic is also reflected in the survey, as the majority of respondents indicated they were trying to reduce the amount of plastic in their lives. In Germany, 83% of respondents agreed with this view, with Finland at 67%, the USA 58%, and China a staggering 93%.



EXPLORING ATTITUDES TOWARDS WATER

Kemira recently commissioned an international consumer survey to better understand people's attitudes and concerns related to water. Do people know where their tap water comes from, or where it goes after they use it? Do they trust their water at home? Who do they think is responsible for water? 7,963 people from Spain, UK, Finland, Germany, Poland and seven US states responded to the survey.

Many people do not trust their drinking water at home. For example, only 61% of Poles say they trust their water for drinking. Finland was an outlier. Finns will happily drink from their kitchen tap – 97% trust their water. The US had the lowest trust of the surveyed countries. 60% of Americans trust their tap water. Furthermore, Americans said that the quality of drinking water where they live is among their top concerns, only second to cost of living. Droughts and floods were also identified as major threats in some of the countries we surveyed.

97% of Finns trust the tap water in their home for drinking. This is an exceptionally high rate. By way of comparison, only 60% of Americans trust their tap water. However, the survey finds, many Finns don't seem to know how their country achieves consistently high water quality, particularly younger generations.

In Germany 74% of the respondents believe water is the country's most valuable resource.

By sharing the results of this survey, our goal is to help our customers, including municipal water utilities, have deeper insight into what the average person thinks about water. We also want to encourage public discussion on the value of water. Taxpayers and policymakers make critical choices that impact the quality and quantity of water for years to come.

	I TRUST THE TAPWATER IN MY HOME TO BE SAFE TO DRINK	I GENERALLY TRUST TAP WATER TO BE SAFE TO DRINK WHEN TRAVELLING ABROAD
FINLAND	97%	8%
GERMANY	73%	26%
UK	72%	23%
SPAIN	65%	21%
POLAND	61%	26%
USA	60%	20%



Further information

ANNEX

Kemira Annual Review 2020 Annex: [GRI-report](#)

GRI-report includes Kemira's detailed economic, social and environmental performance indicators as well as our reporting practices and materiality.

ASSURANCE REPORT

Independent limited Assurance report is found in Kemira Annual Review 2020 Annex on page [43](#).

Kemira

KEMIRA is a global leader in sustainable chemical solutions for water intensive industries. We provide best suited products and expertise to improve our customers' product quality, process and resource efficiency. Our focus is on pulp & paper, oil & gas and water treatment. In 2020, Kemira had annual revenue of around EUR 2.4 billion and around 5,000 employees. Kemira shares are listed on the Nasdaq Helsinki Ltd.

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