

SUSTAIN ABILITY

REPORT

Today and Tomorrow

2021





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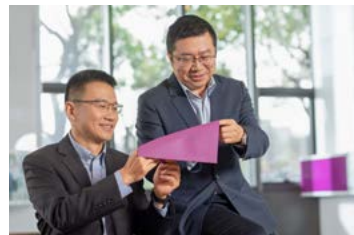
Big data in the chicken coop

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Better than the real thing

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Optimized for on-screen use with Adobe Acrobat



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You can find related videos in our [online report](#)

<https://sustainability-report.evonik.com>

We accept responsibility

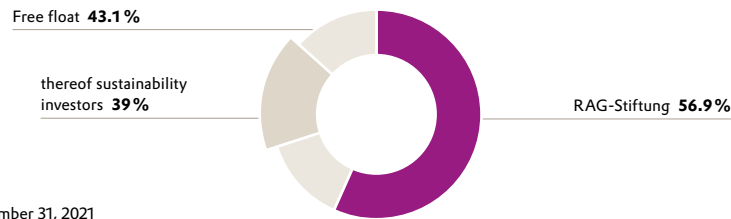
Evonik is one of the world’s leading specialty chemicals companies, with operations in more than 100 countries. We do not make car tires or mattresses, tablets or animal feed. Yet there is a bit of Evonik in all these products—and many more as well. Often it is the small amounts of our products that make a real difference. Because Evonik makes tires more fuel-efficient, mattresses more elastic, tablets more effective, and animal feed more healthy.

Next Generation Solutions

Evonik generates 37 percent of sales with products and solutions with a clearly positive sustainability profile that is above or even well above the market reference level. We call them **Next Generation Solutions**. You can find examples and further information in “Strategy and growth” p. 18 and at the start of each chapter.

Shareholder structure 102-5

C01



As of: December 31, 2021



Drug delivery systems for better treatment.



Viscosity improves for hydraulic fluids in construction machinery.



Peracetic acid keeps poultry free from bacterial contamination.

€14.9

billion sales

€2.38

billion adjusted EBITDA

approx. 33

thousand employees

106

nationalities

26%

female employees

Ten key messages on sustainability at Evonik

What sustainability means for our stakeholders and our company.

1 Our purpose

To create sustainable, value-added solutions for our customers, we apply our purpose **Leading beyond chemistry to improve life, today and tomorrow**. We lead beyond chemistry by networking competencies, perspectives, and partners [p.6](#).

2 Intensive dialogue with stakeholders

We maintain a constant dialogue with our stakeholders on challenges affecting our company and society. Evonik actively seeks dialogue so that it can respond rapidly to key future trends, global developments, and changing market requirements [p.22](#).

3 Sustainability in our corporate strategy

We have integrated sustainability into our strategic management process. This provides the framework for sustainability management and includes all material ecological, economic, and social aspects. We continue to align our portfolio systematically to sustainability as a growth driver [p.17](#).

4 Sustainability Focus Areas

Our contributions to a sustainable transformation are bundled in four **Sustainability Focus Areas (SFA)**: fight climate change, drive circularity, safeguard ecosystems, and ensure health & wellbeing. For each SFA, we show how Evonik reduces its own ecological footprint and

the handprint resulting from the use of our products and solutions in the relevant markets [p.16](#).

5 Next Generation Solutions

Evonik helps serve the rising demand for sustainable solutions. We already generate 37 percent of our sales with products and solutions that have a strongly positive sustainability profile (**Next Generation Solutions**). We intend to significantly increase their percentage of total sales in the coming years [p.18](#).

6 Foresighted resource management

Evonik has set ambitious climate and water targets. In recent years, we have continuously reduced our CO₂ emissions. At the same time, our products and solutions play a significant part in helping customers avoid CO₂ in their applications [p.58](#).

7 Measurability of our sustainability activities

Our soundly based analytical methods meet the rising interest in sustainability. We take into account ecological, social, and economic impacts to arrive at a holistic assessment of our sustainability performance. Special attention is paid to the sustainability analysis of our business, which includes the footprint, handprint, and other market signals and requirements. This is the tool used for the strategic management of our portfolio from a sustainability perspective [p.18](#).

8 Impact of our business

We systematically examine the positive and negative effects of business activities along the value chain. Early identification of future opportunities and risks makes our business model more resilient and sharpens understanding of the long-term value that our activities create for society [p.20](#).

9 SDGs of relevance to Evonik

Evonik supports the United Nations' Sustainable Development Goals (SDGs) and intensively examines its own contributions to achieving them. We have identified the four most important SDGs for the Evonik Group and pay special attention to them (SDG 3, SDG 6, SDG 12, SDG 13) [p.20](#).

10 Continuous improvement of our sustainability performance

We achieve our transparency aspirations by continuously improving our sustainability reporting.

The capital markets notice and value our strategic and operational progress towards greater sustainability. Evonik is positioned among the leaders in renowned sustainability ratings and rankings. In August 2021, we placed our first green hybrid bond with a nominal value of €500 million [p.16](#).

Our purpose highlights our strengths



**LEADING
BEYOND CHEMISTRY
TO IMPROVE LIFE,
TODAY AND
TOMORROW**

As we strive to become the best specialty chemicals company in the world, we are moving beyond chemistry.

We are interlinking disciplines, skills, and perspectives with one another so that as a partner of our customers we can create value-generating and sustainable solutions.

As a result, we play a leading role in our markets and in the development of our industry.

The answer to the question of why we exist lies in the passion with which we provide our customers' products with special characteristics:

in order to make people's lives better, day after day.

Evonik in 2021

We continued to put our sustainability strategy into practice in 2021. Here are some examples from the various areas of action.

February



Sustainability award

The EcoVadis rating agency awarded Evonik a platinum rating for the first time for its sustainability performance. That places us among the top 1 percent of the companies evaluated by EcoVadis in both the chemical industry and in other sectors.

June



Company medical officers integrated into the vaccination drive

Evonik started to vaccinate employees as soon as company medical officers were officially integrated into Germany's vaccination drive. Vaccination lines and vaccination centers were set up at eight sites. These sites also offered vaccines to members of employees' families.

July



New polyamide 12 plant in Marl

The inauguration of the world's largest production facility for polyamide 12 (PA 12) in Marl Chemical Park is a milestone. More than half a billion euros were invested in this facility—the company's largest ever investment in Germany. PA 12 is a high-performance polymer used in attractive growth markets such as 3D printing, medical technology, and automotive engineering.

March



Global circular plastics program

Evonik offers solutions for the entire circular plastics value chain. We have bundled these activities in a global circular plastics program, which we expect to generate additional sales of over €350 million a year from 2030.

August



First green hybrid bond

Evonik has successfully placed its first green hybrid bond with a nominal value of €500 million. This is our first green financial instrument. It is based on the Green Finance Framework, which integrates sustainability even more closely into our financial strategy.

August



Pre-apprenticeship program

Evonik has greatly increased the number of places on the "Start in den Beruf" pre-apprenticeship program. In fall 2021 and spring 2022, we are offering a total of 80 places on this program in Marl, Essen, Wesseling/Lülsdorf, Hanau, and Darmstadt.

November

Alternative to animal testing

Evonik is investing in Singapore-based start-up Revivo BioSystems to support the development of an artificial 4D skin model as an alternative to animal testing.



Strategic partnership with BioNTech

Rapid production of special lipids by Evonik drives forward the production of the coronavirus vaccine. To deliver the new mRNA vaccine developed by BioNTech-Pfizer to the cells in the human body, the long-chain molecules are encapsulated in lipid particles. Evonik's specialists set up the production of lipids at our site in Hanau (Germany) in just eight weeks.

April

Foreword

📄 102-14, 102-32

Ladies and gentlemen:

Looking to the future is what drives our specialty chemicals business. We drive forward research, development, and the commercialization of new products and solutions because simply doing things how they have always been done is not enough for us. Sustainable transformation in all areas of life to achieve a balance of economic, ecological, and social value creation is a special challenge for our innovative spirit. After all, it is not just a question of noble objectives and lofty aspirations. What matters is reliably realizing our plans and achieving what we set out to do. That is the difference between science and science-fiction. Practical realization needs to be focused on the future, yet clearly rooted in the here and now. There are good reasons why our corporate purpose starts with **leading beyond chemistry** and ends with **today and tomorrow**.

In 2021, the present was once again dominated by the worldwide fight against the pandemic. Nevertheless, it was a year full of growth and optimism. A year in which we grew accustomed to new, digital methods of collaboration. A year full of situations where we were able to rely on the entrepreneurial virtues of healthy pragmatism and active improvisation. Above all, it was a year in which millions of people around the world were vaccinated against the coronavirus. All that made 2021 an important transitional year on Evonik's journey from a leading specialty chemicals company, which is where we are now, to a best-in-class specialty chemicals company, which is our goal for the future.

With a focus on that future, we are continuing to align our portfolio consistently to sustainability as a growth driver. In 2021, we therefore firmly integrated the assessment of our sustainability

performance into our strategic management process. At the same time, we successfully issued our first green hybrid bond, with a nominal value of €500 million. Both elements will drive the strong growth of our **Next Generation Solutions**. We want to significantly increase their share of our portfolio. That will play a key part in reducing emissions from our production processes. At the same time, it is driving quantifiable progress in our four focus areas: fight climate change, drive circularity, safeguard ecosystems, and ensure health & wellbeing. We provide an initial overview of this in our special section on the **Sustainability Focus Areas**, starting on  p.59 of this report.

Even Evonik cannot foretell the future. But we can talk with the future. Consequently, our special section lets the younger generation speak up—because sustainability remains a contract between today and tomorrow. What is needed is mutual understanding,



“Sustainability is a strong growth driver for Evonik”

Christian Kullmann, Chairman of the Executive Board



“Our aspiration is making life better for people. Today and tomorrow.”

Thomas Wessel, Chief Human Resources Officer and executive board member responsible for sustainability

respect for the opinions and differing interests of others, and a common determination to bring about change. In the chemical industry, there are many levers we can pull to turn today's aspirations into tomorrow's reality. In that way, we are an enabler of sustainable transformation in almost all areas of life.





























What brings us together is making life better for people. Today and tomorrow.



Christian Kullmann

Thomas Wessel



Top 10 sustainability targets 102-14, 102-15


C02

▼ Sustainability areas of action	▼ Top 10 strategic targets 2022 and beyond	▼ KPIs for each area of action	▼ Status 2021
 Strategy and growth  p.12    	<ul style="list-style-type: none"> Substantial increase in sales generated by Next Generation Solutions 	<ul style="list-style-type: none"> Percentage of sales generated by Next Generation Solutions 	37%
 Governance and compliance  p.28  	<ul style="list-style-type: none"> Percentage of women at the first and second management levels below the executive board: 30 percent at each level by year-end 2024 100 percent of all raw materials suppliers where annual procurement volume is >€100 thousand to be covered by TFS assessments by year-end 2025 	<ul style="list-style-type: none"> Women at the first and second management levels below the executive board Suppliers of raw materials covered by TFS assessments^c 	26.9%/29.2% 69%
 Value chain and products  p.48   	<ul style="list-style-type: none"> Generate more than €1 billion in additional sales^b in our six innovation growth fields by 2025 	<ul style="list-style-type: none"> Sales growth in € million 	--^d
 The environment  p.73    	<ul style="list-style-type: none"> Reduce greenhouse gas emissions <ul style="list-style-type: none"> – absolute scope 1 and scope 2 emissions by 50 percent by 2025 (reference base 2008) – absolute scope 3 emissions from the upstream value chain—principally from the “raw material backpack”—by 15 percent by 2025 (reference base 2020) Reduce both absolute and specific energy consumption by 5 percent by 2025 (reference base 2020) 	<ul style="list-style-type: none"> Reduction in greenhouse gas emissions (scope 1 and 2/scope 3) Reduction in energy consumption in petajoules 	-43% / --^d --^d
 Employees  p.91 	<ul style="list-style-type: none"> 23 percent women in top and senior management by 2023 20 percent intercultural mix^e in top management by 2023 	<ul style="list-style-type: none"> Percentage of female managers Intercultural mix in top management 	17.7%/17.6% 14.6%
 Safety  p.105  	<ul style="list-style-type: none"> Safety <ul style="list-style-type: none"> – Accident frequency rate ≤ 0.26^f – Incident frequency rate ≤ 0.40^g Occupational health performance index ≥5.0 	<ul style="list-style-type: none"> Accident frequency/incident frequency Occupational health performance index 	0.19/0.48 5.6

You can find a full overview of the status of our sustainability targets for 2021 on  p.115. You can find an overview of the main sustainability indicators used for the Evonik Group on  p.114.

^a Outside the scope of the auditor's limited assurance engagement. | ^b With products introduced in or after 2015. | ^c Annual procurement volume > €100 thousand.

^d We do not publish the interim status. | ^e Employees whose nationality is not German  p.102. | ^f New reference parameter from 2021  p.107.

^g Modified calculation basis from 2021  p.107.


Our business model

Evonik is one of the world's leading specialty chemicals companies. Our strengths include the balanced spectrum of our business activities, end-markets, and regions. Around 80 percent of sales come from market-leading positions¹, which we are systematically expanding. This strong competitive position is based on collaboration with customers, high innovative capability, and integrated technology platforms.

Most of our customers are industrial companies that use our products for further processing. The range of markets in which they operate is diverse and balanced. None of the end-customer markets accounts for more than 20 percent of our sales. Our specialty chemicals products give our customers significant additional benefits that are important for their competitive position. Close cooperation with our customers enables us to build up a deep knowledge of their business so that we can offer products tailored to their specifications and extensive technical service.

Market-oriented research and development is an important driver of profitable growth. This is based on our strong innovation culture, which is rooted in our innovation management and management development.

Highly trained employees are a key success factor. They drive forward the company on a daily basis through their hard work and identification with the company. We have therefore developed a wide range of activities to gain and develop talented and qualified employees and to position Evonik as a preferred employer in order to retain them.


As preconditions for Evonik's future viability, we consider sustainable business activities and responsible conduct to be cornerstones of our business model. Sustainability is an integral part of our strategic management process. The basis for this is the sustainability analysis of our business, which once again covered our entire portfolio of chemical products in 2021 (see "Strategy and growth"  p.12). Our goal for the future is to substantially increase the proportion of attractive growth businesses with a clear focus on sustainability (Next Generation Solutions). Foresighted resource management is another key element in our sustainability strategy. In addition, we systematically examine the positive and negative effects of our business activities along the value chain. Early identification of future opportunities and risks makes our business model more resilient and sharpens understanding of the long-term value that our activities create for society.

Digitalization paves the way for sustainability

Evonik started to address the digitalization of production and business processes in the chemical industry at an early stage. We are actively driving forward the digitalization of our production sites: Antwerp (Belgium) is currently being established as a digital

AT A GLANCE

Our Business model

lighthouse location as a model for the digital transformation of other sites. We are also introducing a digital energy management system throughout the world (see "The environment"  p.73).

Our guiding principles for digitalization set out how we intend to embrace people-centric digitalization. We regard digitalization as a group-wide structural task and are networking decentralized initiatives and bundling competencies and methodological knowledge. The role of Evonik Digital GmbH is to identify "uncharted territory" on the Evonik Group's digitalization map and promote the use of digital technologies and data-based innovation processes.


We are speeding up the digitalization of our customer interfaces by establishing digital platforms (see "Value chain and products"  p.48). In our view, digital innovations can pave the way for new business models to help us establish a circular economy, increase product life cycles, and endeavor to reduce the consumption of resources at all stages in the value chain. Digitalization therefore provides new momentum for circular strategies. Topics that the Evonik Group is currently working on include precision livestock farming and chemical leasing.

Corporate structure

C03

Divisions	Specialty Additives	Nutrition & Care	Smart Materials	Performance Materials	Technology & Infrastructure	Evonik Group ^a
Sales (in € million)	3,710	3,557	3,918	2,911	798	14,955
Employees	3,693	5,453	7,742	1,964	8,152	33,004

^a Including enabling functions, other activities, consolidation.

¹ We define these as ranking 1st, 2nd, or 3rd in the relevant market for the product, based on sales. Source: internal evaluations based on 2020. See the overview "Market positions 2021" on  p.190 of the financial report (outside the scope of the audit).

An effective corporate structure

Our specialty chemicals operations are divided into four chemical manufacturing divisions, which operate close to their markets and customers. The chemicals divisions—Specialty Additives, Nutrition & Care, Smart Materials, and Performance Materials—are clearly aligned to our technology platforms. They are supported by the Technology & Infrastructure division.

Specialty Additives, Nutrition & Care, and Smart Materials operate in attractive markets with above-average growth rates. These three growth divisions offer customers customized, innovation-driven solutions, and the aim is for them to achieve above-average, profitable growth through innovations, investments, and acquisitions. The Performance Materials division is characterized by processes that make intensive use of energy and raw materials. It therefore concentrates on integrated, cost-optimized technology platforms, efficient workflows, and economies of scale. Our strategic goal for this division is to contribute earnings to finance the growth of the Evonik Group. Investments and, where appropriate, alliances concentrate on securing and extending our good market positions.

Global production

Evonik has a presence in more than 100 countries, and 83 percent of sales are generated outside Germany. The Europe, Middle East & Africa region accounts for 49 percent of the Evonik Group's total sales, while North America accounts for 23 percent, Central & South America for 5 percent, and Asia-Pacific for 23 percent. We have production facilities at 102 locations in 27 countries on six continents and are therefore close to our markets and our customers. Our largest production sites, for example, in Marl, Wesseling, and Rheinfelden (Germany), Antwerp (Belgium), Mobile (Alabama, USA), Shanghai (China), and Singapore, have integrated technology platforms, most of which are used by several operating units. [102-6](#)

Fiscal 2021

Overall, 2021 was a successful year. We continued the strategic development of Evonik, and our operating performance was positive.

Sustainability is an integral part of the strategic management process at Evonik. In the coming years, we aim to substantially increase the proportion of growth businesses in our portfolio with a clear focus on sustainability (Next Generation Solutions). Evonik's sustainability alignment is highlighted by selective acquisitions to round out its portfolio: Infinitec Activos SL, Montornes del Valles (Spain), Botanica GmbH, Sins (Switzerland), and JeNaCell GmbH, Essen (Germany). Despite the more difficult conditions, further progress was made with the major investments at our site in Marl (Germany), for example, the erection of a large production complex for the specialty polymer polyamide 12 and the construction of two modern gas and steam turbine power plants.

As a result of high global demand in 2021, we were able to raise volume sales significantly compared with the previous year, which was hampered by the coronavirus pandemic. Selling prices were also better than in 2020. Nevertheless, the procurement market was considerably more volatile in the second half of the year. Evonik noticed constraints within global supply chains and higher raw material and logistics costs. All primary energy prices increased, making many chemical precursors more expensive.

Overall, sales and adjusted EBITDA increased significantly, with all chemicals divisions contributing to this. We delivered on our forecast, which we revised upwards in the wake of our successful performance in the first half of the year. **Group sales** rose 23 percent to €14,955 million. **Adjusted EBITDA** improved 25 percent to €2,383 million. The **adjusted EBITDA margin** increased to

AT A GLANCE

Fiscal 2021

15.9 percent (2020: 15.6 percent) but remained below our target mid-term range of between 18 percent and 20 percent. **ROCE** improved to 9.0 percent as a result of higher earnings and was therefore in line with the cost of capital. However, it was below our mid-term target of 11 percent. We generated strong **free cash flow** of €950 million and a **cash conversion rate** of 40 percent.

Our financial profile is still very good: Evonik has a solid investment grade rating, and net financial debt remains at a solid level. In addition to adequate liquidity, we have sufficient unutilized credit lines.

Total value added

Value added is calculated from sales and other revenues less the cost of materials, depreciation, amortization, and other expenses. Evonik's total value added increased by 15 percent to €4,688 million. The largest share of this —73 percent (2020: 78 percent)—went to employees. 8 percent (2020: 6 percent) was paid to the state in income and other taxes. A further 3 percent (2020: 4 percent) went on interest payments. Shareholders of Evonik Industries AG received 16 percent of the value added (2020: 11 percent).

Breakdown of value added


T01

in € million	2020	2021
Total value added	4,069	4,688
Split		
Employees	3,168	3,408
State	251	384
Creditors	171	129
Non-controlling interests	14	21
Net income	465	746

[102-2](#), [102-7](#), [102-10](#), [102-15](#), [201-1](#)



Dr. Götz Baumgarten and Dr. Christian Däschlein
Employees at our site in Marl (Germany)


You can find
related videos in our
[online report](#)

Strategy and growth ✓

Evonik aims to be a best-in-class specialty chemicals company. Our sustainability strategy is an expression of this aspiration, including ambitious environmental targets and an understanding of how to translate sustainability into profitability.

SDGS OF PARTICULAR RELEVANCE FOR EVONIK



KEY TOPICS

- Strategy and growth
- Digitalization¹

1:€4.12


Every €1 value added by Evonik creates of total of €4.12 added value for society^{2, 3, 4}

1:10.5 jobs

1 Evonik employee secures an average of 10.5 jobs in the value chain^{2, 3, 4}

1:€1.53

Every €1 value added by Evonik results in public revenue of €1.53^{2, 3, 4}

¹ See "At a glance"  p.10. | ² Impact valuation of our business in 2021 along the supply chain covering Germany, rest of Europe, USA, Canada, Mexico, Asia-Pacific, Middle East & Africa, and Central & South America on the basis of currently available data. | ³ Data outside the scope of the auditor's limited assurance engagement. | ⁴ The total includes Evonik's direct impact.





STRATEGY AND GROWTH

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Our sustainability strategy

We developed our sustainability strategy in dialogue with our stakeholders. Our materiality analysis and the UN Sustainable Development Goals (SDGs) of particular relevance for Evonik were also taken into account.

Evonik aims to be a best-in-class specialty chemicals company. Our sustainability strategy defines ambitious goals and management tools to support this aspiration and help us translate it into profitable growth. More and more customers expect us to help them achieve their sustainability goals, taking into consideration ecological, economic, and social objectives. The key elements of our sustainability strategy are:

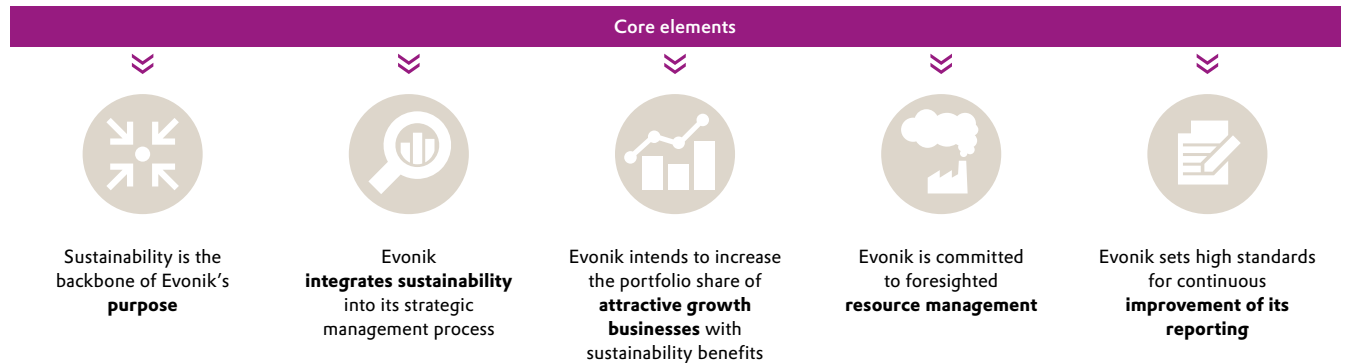
- Giving sustainability a firm place in Evonik’s market proposition and purpose
- Integrating sustainability into our strategic management process
- Increasing the proportion of attractive growth businesses in our portfolio with a clear focus on sustainability (**Next Generation Solutions**)
- Foresighted resource management with ambitious environmental targets, including systematically considering the impact of our business along the value chain and on the SDGs
- Continuous improvement of our sustainability reporting

How we create value for society

The aim of our sustainability strategy is to gain a precise understanding of the principal influences and impacts on the value created by Evonik. Chart C05 p.15 shows the resources and value contributed by Evonik along the value chain.

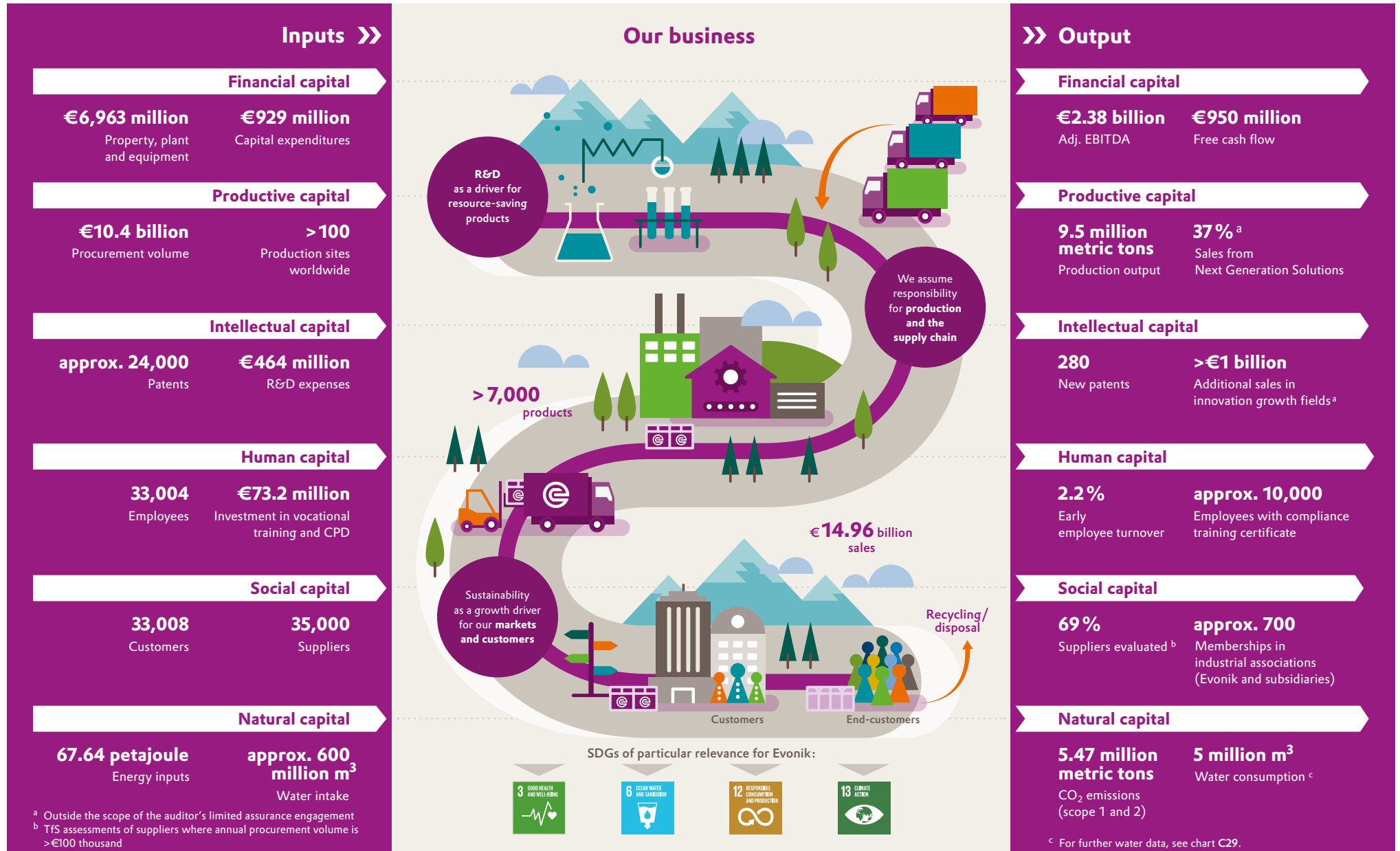
Our sustainability strategy

C04



Resources and value contributed by Evonik in 2021 📄 203-1, 203-2

C05



Our activities in 2021

Sustainability is deeply rooted in our corporate purpose: Leading beyond chemistry to improve life, today and tomorrow. That starts with our employees. At our site in Hanau (Germany), for example, we have established a sustainability “quick check” for employees. The objective of this regular virtual meeting is to share knowledge on sustainability, learn from one another, and develop further ideas for sustainable business activities.

In 2020, we integrated sustainability into our strategic management process. In the reporting period, we bundled Evonik’s contribution to a sustainable transformation in four **Sustainability Focus Areas (SFAs)**: fight climate change, drive circularity, safeguard ecosystems, and ensure health & wellbeing (see the special section on our Sustainability Focus Areas [p.59](#)). For each SFA, we show how Evonik reduces its own ecological footprint as well as the handprint resulting from the use of our products and solutions in the relevant markets. Each SFA addresses specific sustainability requirements and describes our contribution to the Sustainable Development Goals (SDGs).

To increase the proportion of attractive growth businesses with a clear focus on sustainability, we are currently drafting new divisional and group-wide targets and action plans. Our goal is to substantially increase the proportion of sales generated by our Next Generation Solutions by 2030. **Next Generation Solutions** are products and solutions whose strongly positive sustainability profile is above or even well above the market reference level. This portfolio evaluation is derived from the annual sustainability analysis of our business [p.18](#).¹

Evonik engages in foresighted resource management. As part of the 2021 strategy and planning process, we evaluated options to

reduce our greenhouse gas emissions in the short, mid, and long term. When assessing potential ways of reducing emissions, we examine both technological and economic viability criteria and the impact on growth and profitability scenarios. The corresponding considerations will also be included in our strategy dialogue in 2022. In this context, all businesses are required to submit mid-term plans aligned with our central sustainability targets.

Sustainable finance

The ongoing development of our portfolio and the sustainability alignment of our products and processes are becoming increasingly important for the long-term financing of our business activities. Products and solutions from Evonik play a part in the sustainable transformation of many end-markets. Examples are the focus on circularity and climate neutrality. The capital markets recognize our strategic and operational progress towards greater sustainability. For some years now, Evonik has been established among the leaders in renowned sustainability ratings and rankings.

This excellent position was further strengthened in the reporting period: The EcoVadis rating agency awarded us a platinum rating for the first time. We also received an AA rating from MSCI for the first time, positioning us in the leader category. In August 2021, Evonik successfully placed a green hybrid bond with a nominal value of €500 million. This was our first green financing instrument. The development of our Green Finance Framework² ahead of this bond issue played a significant part in integrating sustainability more closely into our finance strategy.

EU taxonomy—little focus on specialty chemicals at present

As part of the Green Deal, the EU taxonomy is designed to direct financing towards sustainable investments. The EU taxonomy has

six environmental objectives: climate change mitigation, climate change adaptation, sustainable use and protection of water and marine resources, transition to a circular economy, pollution prevention and control, and protection and restoration of biodiversity and ecosystems.

In 2021, the EU Commission adopted delegated acts for the first two environmental objectives. Their main focus is on economic activities that currently result in high carbon dioxide emissions, where a reduction in emissions would make the biggest contribution to achieving the EU’s climate targets. The chemical products mainly affected by the delegated acts for these two environmental objectives are commodity chemicals. At present, only a few categories of precursors are affected.

Evonik’s portfolio of specialty chemicals is therefore only affected to a small extent by the **EU taxonomy** at present. In other words, only a few of our activities are taxonomy-eligible³. In 2021, taxonomy-eligible activities only accounted for 16 percent of turnover, 21 percent of CapEx, and 13 percent of OpEx. For further information on how these indicators are calculated,


€ **500** million

Evonik’s first
green hybrid bond issued
in August 2021

¹ Outside the scope of the auditor’s limited assurance engagement.

² https://corporate.evonik.com/Downloads/Corporate/IR/Anleihen%20%26%20Rating/Evonik_GreenFinanceFramework.pdf


³ Taxonomy-eligible economic activities are those activities of a company that fall within the scope of the EU taxonomy and are listed in annexes 1 and 2 to the delegated acts supplementing Regulation (EU) 2020/852 for the first two environmental objectives. The second set of FAQs published by the EU Commission on February 2, 2022 is not addressed in this sustainability report because the short time until publication of this report meant that it was not possible to implement them in accordance with Evonik Industries AG’s data quality standards. In particular, when assessing the taxonomy eligibility of economic activities, we did not draw a distinction between those that are “eligible,” “eligible-to-be-enabling,” and “eligible-to-be-transitional”. Similarly, we did not apply the technical screening criteria. Furthermore, for the environmental objective “climate change adaptation,” we did not perform a vulnerability and risk assessment or establish a specific plan to implement further adaptation solutions.

please refer to the financial report 2021, section 5.5.2 “Information on the EU taxonomy”  p.58.

For fiscal 2022, Evonik will be reporting for the first time on its taxonomy alignment¹ for the climate change mitigation and climate change adaptation objectives. We anticipate that only a very small proportion of the relevant activities will be taxonomy-aligned.

This is because, in the case of chemical products, the first two environmental objectives in the EU taxonomy mainly address the carbon footprint of production but ignore the positive effects (handprint)² arising from the use of many products. By contrast, the sustainability analysis of our business covers the footprint, handprint, and further signals and market requirements. Many Evonik products are differentiated from competitive products principally through their handprint. Our sustainability analysis, with its holistic approach, therefore remains the key tool for the strategic management and ongoing development of our portfolio.


Further improvement in our reporting

We continued to drive forward our sustainability reporting in 2021. As well as being prepared in accordance with the GRI standards, core option, this sustainability report is aligned for the first time to the SASB³ Chemicals Sustainability Accounting Standard (“About this report”  p.116). The main reason for this is the interest shown by the capital markets. We are carefully monitoring the developments relating to a possible EU reporting standard and a new international framework for sustainability reporting and consider that our additional reporting in accordance with the SASB prepares us for the future.

In view of the increasing importance of non-financial indicators and their steering function, we launched a sustainability data management project in 2021. The aim is to improve the quality and efficiency of the related data collection processes and systems. To this end, sustainability data will be bundled on a single platform (“single point of truth”). Following the completion of the preliminary project, we plan to start the implementation phase in 2022.

The ongoing strategic development of sustainability management at Evonik will also be reflected in additional sustainability targets for the remuneration of the executive board and corporate executives in the future.

Organization and management


The executive board bears overall responsibility for sustainability and all climate-related aspects at Evonik. Direct responsibility is assigned to the chief human resources officer. Responsibility for sustainability management is defined in a corporate policy. The supervisory board also regularly discussed sustainability topics in 2021.  102-18, 102-22

Sustainability governance structure at Evonik

C06



The main sustainability bodies at Evonik are the **sustainability circle** and the **sustainability council**. As the responsible executive board member, the chief human resources officer chairs both of these bodies. The co-chairman of the sustainability council is the executive board member responsible for chemicals and innovation. The sustainability circle comprises representatives of the relevant functions and specialist departments. The sustainability council ensures close alignment with the businesses. The members are the heads of the divisions and the Sustainability, ESHQ, and Strategy functions. The sustainability council makes decisions on group-wide sustainability activities. Where necessary, these are escalated to the executive board. Following approval by the executive board, the measures are implemented by the operational units in close consultation with the relevant corporate functions, for example, Strategy, Sustainability, Research, Development & Innovation, and Procurement.

Evonik has integrated sustainability into the strategic management process (SMP), which provides the framework for sustainability management and includes all ecological, economic, and social aspects that are material from Evonik’s perspective. Quantifiable effects are included in the SMP through our sustainability analysis ( p.18). This is designed to ensure that sustainability plays a key role in the management of our business activities. In the Specialty Additives, Nutrition & Care, and Smart Materials growth divisions, the focus is on driving forward our **Next Generation Solutions**. The divisions have different action plans aligned with the requirements of their specific markets. These take into account the four **Sustainability Focus Areas**. The integration of sustainability criteria into ongoing processes is coordinated by the Sustainability function in close cooperation with the operating business and other relevant corporate functions.

¹ Taxonomy-aligned activities are taxonomy-eligible activities that meet the stringent technical screening criteria set out in the delegated acts on the EU taxonomy and meet minimum social standards.

² We define handprint as positive impacts of our products along the value chain compared with other established products and applications on the market, especially in customers’ applications.

³ SASB = Sustainability Accounting Standards Board.

Measurability of our sustainability activities

Extensive transparency and soundly based analyses are our response to the growing interest shown by our stakeholders in sustainability. We take into account ecological, social, and economic effects to arrive at a holistic assessment of our sustainability performance.

Alongside potential future opportunities and risks for our business, we highlight the cost/benefit effects of Evonik’s activities for society. We see this as an important contribution to ensuring that society accepts new technologies and industrial production.

Sustainability analysis of our business¹

The sustainability analysis of our business plays an important role in establishing sustainability in our strategic management process. The methodology is based on the chemical industry standard for portfolio analysis. The extensive evaluation of these sustainability signals in all three dimensions of sustainability—economic, ecological, and social—gives us insights for the foresighted management of individual products and entire business areas. The results of the analysis for 2020 were integrated into the strategy process in 2021.

Methodology

The market signals identified as being significant for Evonik form the heart of our sustainability analysis. These include, for example, anticipated regulatory trends, environmental and social performance compared to alternative solutions, and major sustainability

ambitions in our markets. The evaluation is based on the framework for Portfolio Sustainability Assessments (PSA) developed by the World Business Council for Sustainable Development (WBCSD). This enables us to take account of different market signals in the various end-markets for our business. The unit of evaluation is defined through a differentiated assessment of the

Analysis of the measurability of sustainability

T02

Type of analysis	Questions addressed
Sustainability analysis of our business	What are the strengths and weaknesses of the products in our portfolio with regard to sustainability requirements? What economically viable measures help us reduce the carbon footprint of our products? (Inside-out perspective)
Evonik Carbon Footprint	What is the annual carbon footprint of the entire Evonik Group? (Inside-out perspective)
Life cycle assessments	What are the environmental impacts resulting from the production of our products (cradle-to-gate), including their application by our customers (cradle-to-grave)? (Inside-out perspective)
Analysis to determine which Sustainable Development Goals are relevant for Evonik	Which products and solutions for our customers address the challenges facing society? How do we contribute to meeting the 17 SDGs? (Outside-in perspective)
Impact valuation	What positive and negative impacts do our business activities have on the environment and society? (Outside-in perspective)
Value chain analysis	From the perspective of our stakeholders, what opportunities and risks are associated with our products in their respective value chains? (Outside-in perspective)

STRATEGY AND GROWTH

Measurability of our sustainability activities

relevant products in specific product-application-region combinations (PARCs). For each PARC, we identify the benefits of using the product and will gradually be quantifying these in greater detail. [📄 102-8, 201-2, 203-1, 203-2](#)

Evonik operates in a dynamic competitive environment where markets, technologies, and regulatory conditions are subject to change. Consequently, sustainability requirements are not static. Our sustainability analysis takes into account these rising aspirations.

The assessment of all the PARCs analyzed is used in a structured overall evaluation of the sustainability performance of our portfolio, resulting in allocation to the performance categories leader (A++), driver (A+), performer (B), transitioner (C-), or challenged (C-) (c07 [📄 p. 19](#)).

2021 findings

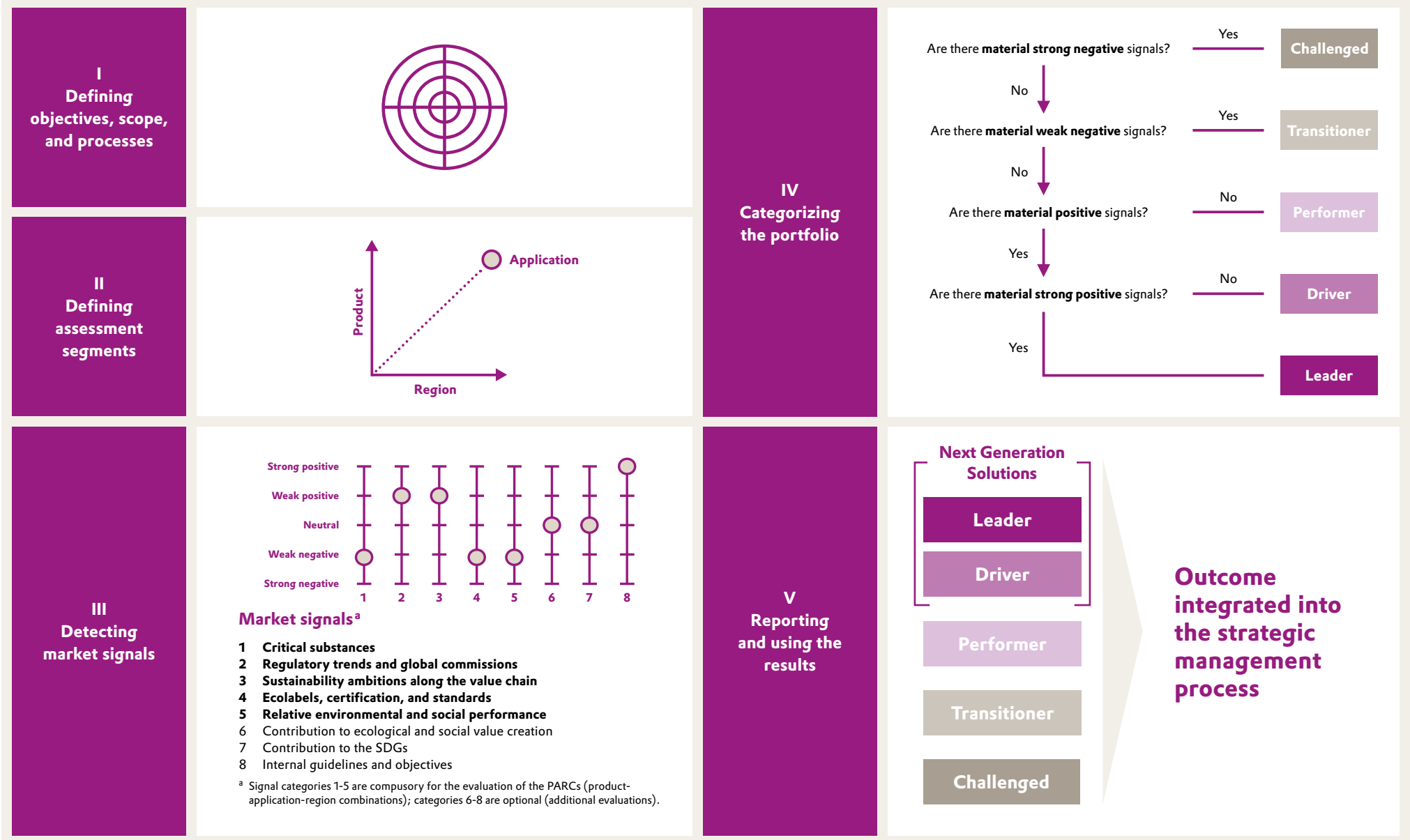
In the reporting period, our sustainability analysis was applied to our entire portfolio for the second time. We examined 463 PARCs, covering the total sales generated by Evonik with chemicals in fiscal 2020. That was a significant increase compared with the previous year when 326 PARCs were examined, because many PARCS were subdivided into different applications and regions to improve the quality of the analysis. The main findings of our sustainability analysis 2021 were:

- Evonik generates **91 percent** of sales with products and solutions whose sustainability performance is at least in line with the market reference (leader, driver, or performer category).
- Evonik generates **37 percent** of sales with products and solutions with a clearly positive sustainability profile that is above

¹ The results of our sustainability analysis in 2021—based on the 2020 data—were outside the scope of the auditor’s limited assurance engagement.

Sustainability analysis of our business

C07



or even well above the market reference level (leader and driver categories). We call these our **Next Generation Solutions**. They have attractive growth rates and stand out positively in their markets because of their clear sustainability benefits. We aim to achieve a substantial increase in the proportion of sales generated by our **Next Generation Solutions** by 2030.

Life cycle assessments

Life cycle assessments are a focal area of our sustainability analysis. The high expertise and extensive operational networking of our internal life cycle management group play an important part in continually enhancing our knowledge of the impact of our business activities. A broad spectrum of life cycle assessments is used for this. We use the findings for selective improvements such as more product-oriented measures to reduce our carbon footprint or improve water management at our sites worldwide.

UN Sustainable Development Goals of relevance for Evonik

The Sustainable Development Goals (SDGs) provide guidance on actively aligning our current business activities to overarching development paths. Evonik supports the realization of the SDGs and has intensively examined its own positive and negative contributions for a number of years. In 2017, we started to document the positive contribution made by our products and solutions to the SDGs. The findings are published on our website.¹ In 2018, we developed our own methodology to identify the SDGs that are especially relevant for Evonik. This approach includes the 169 sub-targets of the 17 SDGs.

An SDG is especially relevant for us if there is a significant positive or negative influence on or by Evonik. To this end, we use a multi-step process to examine and weight key criteria such as sales, earnings contribution, and inclusion in our growth engines or innovation growth fields. The evaluation also includes the expectations of internal and external stakeholders and the results of our materiality analysis. The SDGs of particular relevance for Evonik are:



In fiscal 2020, 52 percent of sales from our chemicals businesses² contributed to SDGs 3, 6, 12, and 13, which are of particular relevance from the viewpoint of the Evonik Group.

Throughout this report, you can find information on how our activities relate to the SDGs of relevance to Evonik (see special section on the **Sustainability Focus Areas** [p. 59](#), the SDG index [p. 121](#), and mapping of the 17 SDGs to the GRI content index [p. 122](#)).

Impact valuation³

Since Evonik is an industrial company, it is important to monitor the impact of our business activities. We use an impact valuation to regularly measure and analyze the direct and indirect impacts

from an economic, ecological, and social perspective. This supplements our established analytical approaches. We anticipate that this will allow for the early identification of potential future opportunities and risks, make our business model more resilient, and improve our understanding of the long-term value that our business activities create for society. [102-29](#)

This procedure provides an insight into

- the scale of the positive and negative ecological, social, and macroeconomic impact of our corporate activities;
- Evonik's benefits for society as a whole; and
- the key levers to reduce negative impacts and maximize positive impacts along our value chain.

Our impact valuation is based on the input-output-outcome-impact (IOOI) model, which takes account of the input of resources and the measurable outcomes of corporate activity. In addition, short- and long-term impacts are identified, measured along the value chain, and evaluated.

Monetary valuation

We aim to assign a monetary value to individual indicators such as vocational training and continuing professional development of employees, employment impacts, and global warming so they can be compared. Most of the factors used for this are publicly available. They are based on the work of the relevant economic, environmental, and social research institutes.

¹ <https://corporate.evonik.com/en/responsibility/sustainable-development-goals>

² Group sales in 2020.

³ The impact analysis was outside the scope of the auditor's limited assurance engagement.

Chart C08 Monetary impact valuation of our business activities shows the results of the impact valuation, based on the figures for 2021. Our business activities are associated with ecological impacts at many points. The main negative impacts are greenhouse gas emissions and water consumption in the supply chain. These are countered by strongly positive macroeconomic impacts, both along the supply chain and by our own production activities. [303-1, 306-1](#)

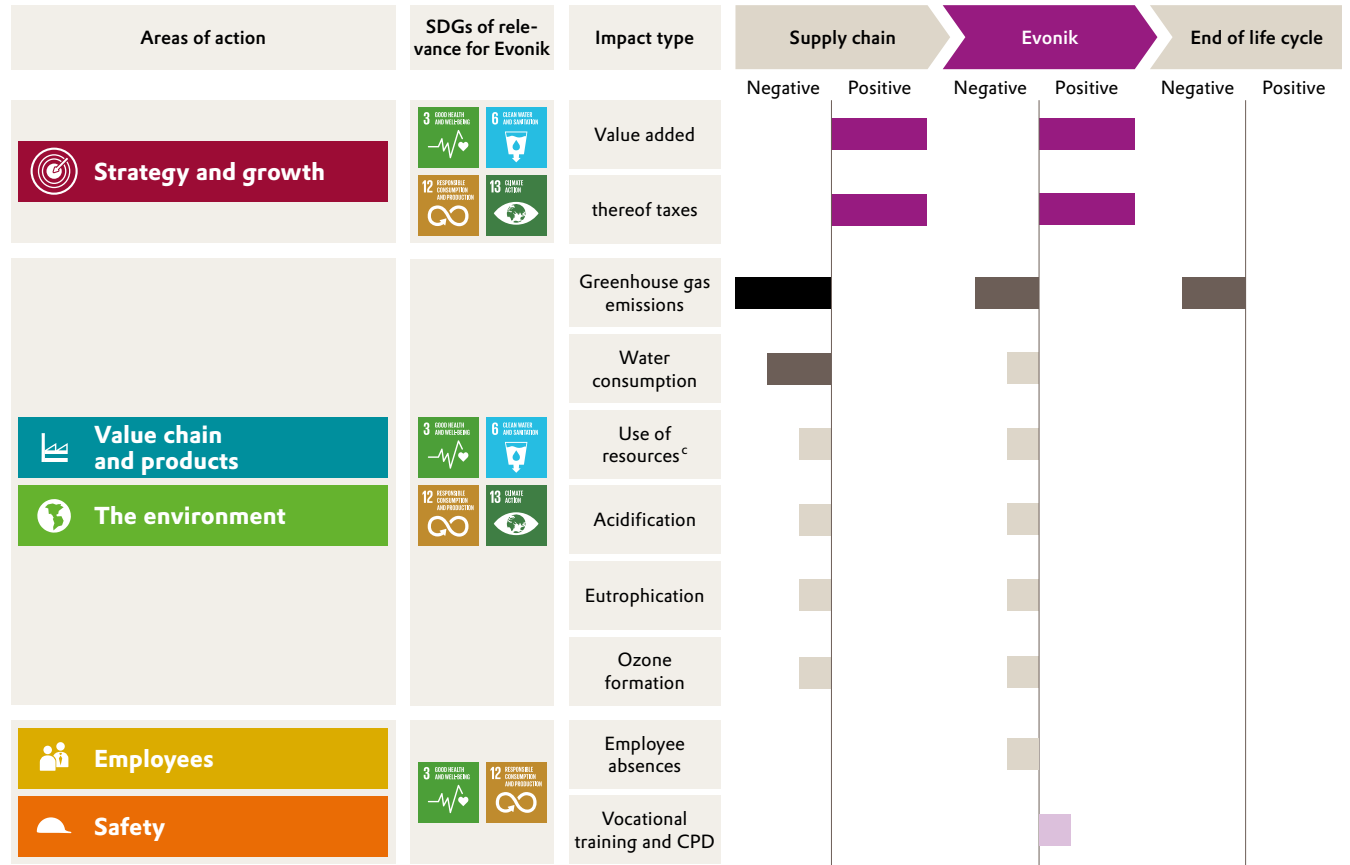
Evonik markets many products whose use makes a positive ecological and social contribution compared with conventional alternatives. These include exemplary products to avoid greenhouse gas emissions, which are outlined in the section on the Evonik Carbon Footprint (“Value chain and products” [p.48](#)). By contrast, the impact analysis presented here only looks at the absolute impact of our business activities. It does not include the impact of the use of our products or a comparison with alternatives.

Supply chain analysis

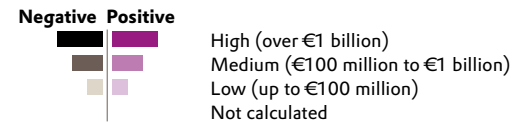
We hold workshops with product managers to analyze the possible opportunities and risks of the value chains of relevance for their business. These include scenarios to explore disruptive factors in their markets, for example, as a result of changing customer requirements or increased regulation. In this way, we derive strategic recommendations for action on short- and long-term developments. This process also allows structured identification of the SDGs of relevance for each business. In the reporting period, eight supply chain workshops were held with different business lines. Due to the coronavirus pandemic, we switched to a digital format, which proved very effective. In particular, this format provided additional scope to include the experience of customers and colleagues in other regions.

Monetary impact valuation of our business activities ^{a,b}

C08



Type and scope of impact



^a The impact analysis was outside the scope of the auditor’s limited assurance engagement. Chart C08 shows Evonik’s impact along the value chain, excluding induced effects, which were calculated separately.
^b It is not possible to calculate all monetary impacts along the value chain as not all data are available.
^c The impact of raw materials and supplies used in production is taken into account in supply chain/raw materials “upstream.”

Engaging with our stakeholders

We are convinced that only companies that act responsibly, enjoy people’s trust, and are open to continuous improvement can be successful in the long term. That includes listening very carefully to the concerns of our stakeholders.

📍 102-40, 102-42, 102-43, 102-44

Evonik actively seeks dialogue with stakeholders so that it can respond rapidly to key future trends, global developments, and

changing market requirements. Stakeholders are individuals or groups that influence Evonik’s decisions and activities and/or are influenced by them. We use the following criteria to define and prioritize our stakeholder groups:

- Type of influence (direct, indirect)
- Impact cluster (e.g., business, financial market)
- Characterization (e.g., suppliers, employees, customers).

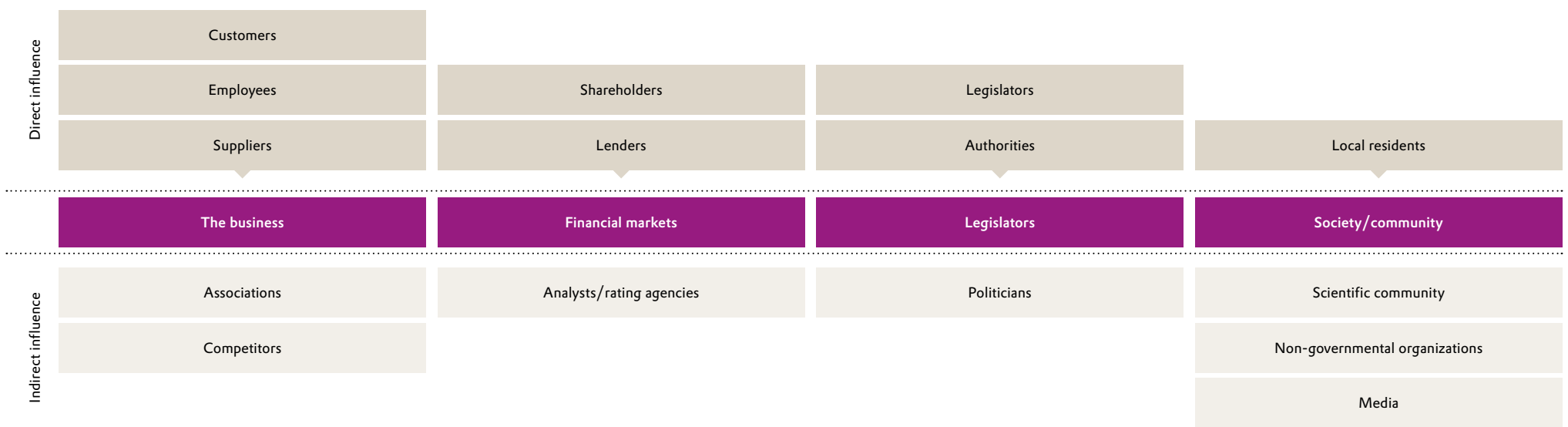
Chart c09 shows the stakeholder groups of relevance for Evonik and their influence on our company.

Evonik engages in continuous dialogue with its stakeholders—both in the operating business and at group level. Every year, this comprises a wide range of events and issues (chart c10 p.23 Stakeholder engagement in 2021). The insights gained are shared within the company. 📍 102-48


The approach defined for engaging with our stakeholders includes the Evonik regions.¹ In general, we endeavor to achieve the widest possible coverage of operational, political, social, and community perspectives. 📍 102-21, 102-29

Stakeholder groups and their influence on Evonik 📍 102-40

C09



¹ www.evonik.com/Stakeholdermanagement

Stakeholder engagement in 2021  102-21, 102-40, 102-43, 102-44, 102-47

C10

Stakeholder groups ^a	Examples of stakeholder engagement ^b	Key issues	Stakeholder groups ^a	Examples of stakeholder engagement ^b	Key issues
Customers	<ul style="list-style-type: none"> Exchange on life cycle assessments Exchange on sustainability Sustainability workshop Dialogue with leading tire manufacturers Dialogue at trade shows 	<ul style="list-style-type: none"> Digitalization R&D/innovation More sustainable products/solutions for our customers Product stewardship Transportation safety and logistics 	Legislators	<ul style="list-style-type: none"> German government's Sustainable Finance Committee Dialogue with regional and national politicians Site visits by national MPs 	<ul style="list-style-type: none"> Responsible management and human rights Responsibility within the supply chain Efficient use of scarce resources/circular economy Product stewardship Climate change Plant safety Occupational safety
Employees	<ul style="list-style-type: none"> Regular dialogue with the Evonik regions on various sustainability topics Employee development reviews Meet & greet: workplace/staff meetings Learning sessions on various topics Intranet, blogs, employee magazine Internal social media platforms ("communities") Competition for ideas on circularity & recycling 	<ul style="list-style-type: none"> Strategy and growth Digitalization Responsible management and human rights Appeal as an employer Diversity and equal opportunity Vocational training and continuing professional development Occupational safety Plant safety Health protection and promotion Transportation safety/logistics 	Authorities	<ul style="list-style-type: none"> Talks with authorities 	<ul style="list-style-type: none"> Climate change Plant safety Occupational safety Transportation safety/logistics Responsible management and human rights Appeal as an employer Water management Waste management
Suppliers	<ul style="list-style-type: none"> TfS and EcoVadis webinars/workshops Workshops with strategic suppliers 	<ul style="list-style-type: none"> Strategy and growth Digitalization Responsible management and human rights Responsibility within the supply chain Efficient use of scarce resources/circular economy Product stewardship Plant safety Occupational safety Transportation safety/logistics 	Local residents ^c	<ul style="list-style-type: none"> Magazines for local residents Neighborhood networks 	<ul style="list-style-type: none"> Strategy and growth Plant safety Occupational safety Transportation safety/logistics Water management Appeal as an employer
Shareholders	<ul style="list-style-type: none"> Virtual shareholders' meeting Roadshows/conferences 	<ul style="list-style-type: none"> Strategy and growth Responsible management and human rights Climate change Plant safety Occupational safety 	Lenders	<ul style="list-style-type: none"> Talks with rating agencies Talks with lenders, including sustainability investors, e.g., on Evonik's first green hybrid bond 	<ul style="list-style-type: none"> Strategy and growth Climate change Plant safety More sustainable products/solutions for our customers R&D/innovation

^a Only includes stakeholder groups with a direct influence.

^b Fewer stakeholder dialogue events were held in the reporting period because of the pandemic.

^c Around Evonik sites.

We have developed various formats for dialogue with stakeholders. These help us engage with both direct and indirect stakeholders. When choosing topics for the specific dialogue formats, we are guided by our materiality analysis. As a result of the pandemic, we could not use these formats in 2021 as we normally would. Evonik Perspectives, our large stakeholder conference, had to be canceled in 2020 due to the pandemic. In 2021, we held this event again—in a digital format for the first time. The topic was “Sustainable growth—Can industry do the Green Deal?” The forum started with a keynote speech by Dr. Ursula von der Leyen, president of the European Commission. At times, this forum reached more than 300 stakeholders, who were able to contribute interactively to the proceedings.



Advocacy

Evonik gets involved in public debate and is a discussion partner in opinion-forming processes at regional, national, European, and international levels. Our offices in Berlin and Brussels play an important role in this. Our employees network with politicians, the general public, and trade associations: They provide input to shape political conditions and are actively involved in consultations, hearings, and discussions.

The areas of strategic relevance for Evonik are environmental policy, environmental regulation, energy, the climate, circular economy, industrial policy, agriculture, and the bioeconomy. We have established extensive monitoring in these areas.

Our positions

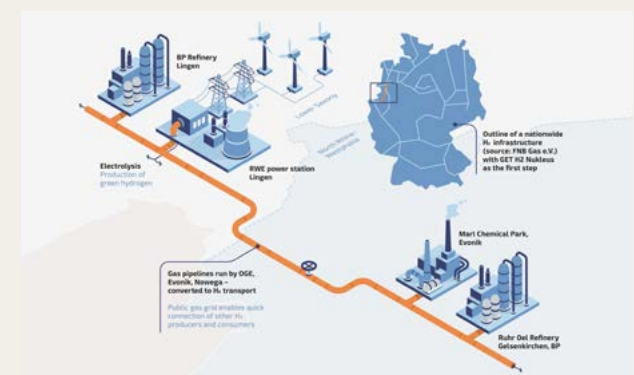
Our dialogue with politicians on environmental policy and regulation includes the digitalization of permitting processes, for example, through legislation to ensure a reliable planning base, as well as safeguarding knowledge and protection from external attacks. In the task force on modernization of planning, Evonik advocates for a revision of planning and permitting law to speed up permitting processes and increase their digitalization and efficiency. Other issues that are relevant for us are the possible classification of certain silicones as substances with persistent toxic properties. Here, we are actively engaged in advocacy together with the European Chemical Industry Council (Cefic).

Evonik supports the objectives of the Paris Agreement on Climate Change (see “The environment” [p.73](#)). The EU Commission aims to make Europe the first climate-neutral continent by 2050. With this in mind, it published the “Fit for 55 Package” in summer 2021. The proposed directives and regulations aim to reduce net greenhouse gas emissions by at least 55 percent by 2030 (reference base: 1990).

Evonik is continuing to renew its energy infrastructure in Marl (Germany), its largest site worldwide. When the new gas and steam turbine power plants come into service in 2022, the Evonik Group will no longer use hard coal for electricity or steam generation at any of its sites worldwide. That is an important contribution to achieving our climate targets. We aim to halve our absolute scope 1 and 2 greenhouse gas emissions by 2025 (reference base: 2008). In addition, Evonik is gaining strategic access to green hydrogen through the GET H2 Nukleus project at Marl Chemical Park in Germany (see “Safety” [p.112](#)). Through this project, we have made a contribution to the legislative process for German legislation on the energy industry and renewable energy.

STRATEGY AND GROWTH

Engaging with our stakeholders



Objective of the GET H2 Nukleus consortium: Germany's first public hydrogen network to supply green hydrogen to industry, including Marl Chemical Park.

In the area of resource efficiency, we want our products and solutions to contribute to a circular economy for plastics with greater scope for recycling. In this context, we are advocating for a legal framework based on open technology that includes and allows a variety of recycling technologies. Moreover, we are involved in the European chemicals strategy for sustainability and the European industrial strategy.

The farm-to-fork strategy included in the EU Commission's Green Deal is designed to make the entire food chain more sustainable. In agriculture and bioeconomy, Evonik supports approaches aligned to sustainable nutrition of agricultural livestock, which make a contribution to improving animal welfare and food quality as well as reducing surplus feed in the environment.

Information on donations to political parties and anti-corruption measures can be found in “Governance and compliance” [p.28](#).

Our materiality analysis

Our sustainability activities are systematically aligned to materiality. The results of our materiality analysis are grouped in six areas of action, which also provide the basic structure for this report.

We regularly review our materiality analysis to check that it is complete and up-to-date. Our approach is set out in a guideline. Our materiality analysis includes both an outside-in perspective—the importance of economic, social, and ecological aspects for our company—and an inside-out perspective, which looks at the ecological, social, and economic impacts of our business activities.

We aim to perform a full materiality analysis roughly every three to four years. The next extensive update is planned for 2022 and will be based on the GRI Universal Standards 2021. In the interval between two major updates, we work on the content of the issues identified.

In the last extensive update in 2018, our stakeholders were asked about the most important sustainability issues for Evonik. A distinction was made between stakeholders with direct and indirect influence. The participants at our stakeholder dialogues formed the basis for our survey. In addition, we asked internal experts, employee representatives, and specialists from the Evonik regions for their opinions. Particular attention was paid to both the positive and negative impacts of Evonik’s business activities along the value chain.

102-40, 102-42, 102-43, 102-46, 102-48, 102-49

Materiality analysis 2021 102-44, 102-46, 102-47, 102-48, 102-49, 103-2

C11

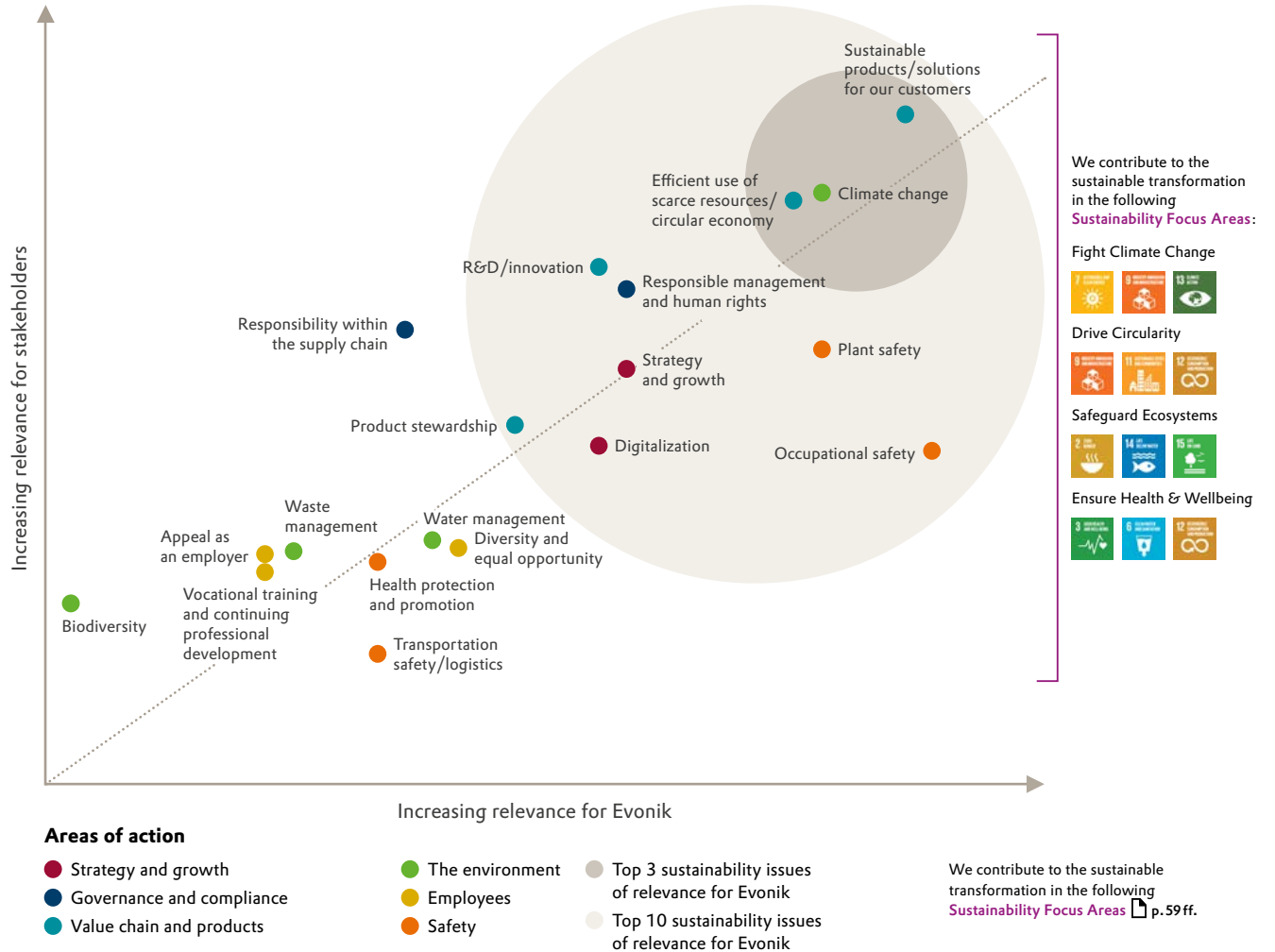


Chart C11 p.25 Materiality analysis 2021 shows the opinions of our stakeholders and internal experts on the most important sustainability topics for Evonik. The top three topics are

- sustainable products/solutions for our customers,
- climate change, and the
- efficient use of scarce resources/circular economy.

These remained the focus of our work in 2021. They are reflected directly, for example, in the expansion of our production capacity for resource-efficient products through acquisitions, capital expenditures, and innovations. We also worked on our climate strategy and roadmap and stepped up our circular economy activities. This report is also systematically aligned to the materiality criterion.

In 2021, we reviewed the material sustainability topics for Evonik via a media and peer group analysis. This showed that the topics in our materiality analysis are still complete and up-to-date.

For the sustainability topics defined in our materiality analysis, there is an anonymous complaints mechanism for both employees and external stakeholders. One important tool in this context is our whistleblower hotline (see “Governance and compliance” p.28).

Our influence along the value chain

We examine the extent of Evonik’s influence along the value chain using our 19 material sustainability topics (chart C12).

Areas of action and impact of Evonik’s business along the value chain 102-46, 102-47

C12

Areas of action and SDGs of relevance for Evonik	Key topics	Influence along the value chain		
		Supply chain	Evonik	Application
Strategy and growth 	Strategy and growth	Medium	High	Medium
	Digitalization	Low	High	Medium
Governance and compliance 	Responsible management and human rights	Medium	High	Low
Value chain and products 	Responsibility within the supply chain	Medium	High	None
	R&D/innovation	Low	High	Medium
	Efficient use of scarce resources/circular economy	Medium	High	Low
	Sustainable products/solutions for our customers	None	High	High
	Product stewardship	Low	High	Medium
The environment 	Climate change	Medium	High	Medium
	Water management	None	High	None
	Waste management	None	High	None
	Biodiversity	None	Medium	None
Employees 	Appeal as an employer	None	High	None
	Diversity and equal opportunity	None	High	None
	Training/advanced training	None	High	None
Safety 	Occupational safety	Low	High	None
	Plant safety	None	High	None
	Protecting and promoting health	None	High	None
	Transportation safety/logistics	Medium	High	Medium

■ High ■ Medium ■ Low ■ None

The decisive factors affecting the extent of our influence are the criteria outlined in table T03, in other words, the existence of management systems, metrics, targets, and governance systems. From these, we derived our reporting boundaries. These specify whether we monitor and manage the topics within our organization or externally. This is also included in the assessment of our influence. We examine the issues from a reporting perspective. Apart from climate change, the topics in the environment area of action are examined exclusively within our organization. In this

area of action, our metrics, governance systems, etc., therefore relate to Evonik and not to the supply chain or applications. The same applies to topics in the employees area of action.

For all topics apart from biodiversity, we have a high influence in the value chain shown in chart C12 at the Evonik level because, in addition to metrics and governance systems, we have developed management systems for the 19 material sustainability topics for our business.

Classification of the extent of our influence  102-46

T03

Influence	Criteria
High	Direct influence because management is possible using our own management systems, metrics, and governance systems. We set and monitor the targets.
Medium	Indirect influence. The same criteria apply as for a high level of influence, with the exception of our own management systems.
Low	Little influence. Limited decision-making scope; decisions are taken by others (e.g., customers). We cannot directly define metrics and targets. The management systems are owned by others and are outside our organization. We can only make basic decisions based on our governance systems (e.g., to enter into or end a business relationship).
None	No influence. There are no management systems; Evonik does not have its own targets, metrics, or governance systems.


STRATEGY AND GROWTH

Our targets

Our targets




Below is an overview of the targets set for our strategy and growth area of action.

Target attainment in 2021¹

 At least 35 percent of sales should come from **Next Generation Solutions** (status at year-end 2021: 37 percent)²

Target for 2022 and beyond

Substantial increase in sales generated with **Next Generation Solutions** by 2030

-  Target not achieved
-  Target partially achieved or target horizon extends beyond 2021
-  Target achieved


¹ The results of our sustainability analysis in 2021 were outside the scope of the auditor's limited assurance engagement.

² Sustainability analysis of our business 2021 based on chemicals sales in 2020.



Mike Krantz
Employee of Ardenne Volaille at
our site in Bertrix (Belgium)

Elisabeth Scalais
Employee at our site in Leuven (Belgium)


You can find
related videos in our
[online report](#)



Governance and compliance ✓

We are convinced that reliable and ethical management of the company is the basis for our long-term business success, fair competition, and acceptance by society.

SDGS OF PARTICULAR RELEVANCE FOR EVONIK ↻



KEY TOPICS ↻

- Responsible management and human rights
- Responsibility within the supply chain

25.0%

Female executive board members

26.9%

Female managers at first management level¹

29.2%

Female managers at second management level¹

69%

Raw materials suppliers² covered by TfS assessments

¹ At Evonik Industries AG.

² Average procurement volume >€100 thousand.





GOVERNANCE AND COMPLIANCE

30 Responsible management and human rights

- 30 Strategy and management [102-12, 102-13, 102-16](#)
- 31 Human rights [406-1, 407-1, 408-1, 409-1, 103-2](#)
- 32 Corporate governance [102-18, 102-19, 102-20, 102-21, 102-22, 102-23, 102-27, 102-28, 102-35, 102-36, 405-1](#)
- 34 Opportunity and risk management [102-15, 102-29, 102-30, 201-2](#)
- 35 Business ethics and compliance [102-11, 102-33, 102-34, 102-17, 307-1, 103-2, 407-1, 205-1, 205-2, 205-3, 206-1, 419-1](#)

41 Cybersecurity [418-1](#)

42 Management of data protection [207-1, 207-2, 207-3](#)

42 Tax [415-1](#)

43 Donations to political parties [102-9, 102-10, 102-16, 103-2, 204-1, 308-1, 308-2, 407-1, 408-1, 414-1, 414-2](#)

43 Responsibility within the supply chain

43 Strategy and management

44 Validation and evaluation of suppliers

45 Conflict minerals

46 Resilience of our supply chains during the coronavirus pandemic

47 Reducing CO₂ emissions along the upstream value chain [102-14, 102-15](#)

47 Our targets

Responsible management and human rights

As well as complying with the law and respecting human rights, the principles of business ethics involve respecting internal regulations and binding voluntary commitments. We are committed to fair competition, we comply with cartel and anti-trust law, and we forbid any form of corruption by our employees.

Strategy and management

Evonik is committed to observing internationally recognized standards and its own more far-reaching guidelines and principles of conduct. The starting point for responsible corporate management at Evonik is our code of conduct, together with our global

Voluntary commitments [102-16](#)


Internal	External	
Code of Conduct for Evonik employees	econsense—Forum for Sustainable Development of German Business	Chemie ³
Global Social Policy	ILO—International Labour Standards	Global Reporting Initiative
ESHQE Policy of Evonik Industries AG	OECD Guidelines for Multinational Enterprises	Responsible Care®
Policy Statement on Human Rights	Code of Responsible Conduct for Business	Together for Sustainability
Code of Conduct for Suppliers	World Business Council for Sustainable Development (WBCSD)	UN Global Compact

C13

social policy and our policy on the environment, safety, health, quality, and energy (ESHQE). In addition, the executive board has adopted a policy statement on human rights. Human rights are also included in our code of conduct.

Our code of conduct sets out Evonik’s most important principles and standards, which all employees must be aware of. It is valid throughout the Evonik Group¹ and is an integral part of the employment contract between each individual employee and Evonik. Evonik has defined responsibility for the topics included in the code of conduct, along with key contacts. Violation of the code of conduct can damage Evonik’s reputation and result in substantial financial loss. In view of this, violations can have far-reaching consequences for the employee involved. We do not tolerate violations of our code of conduct. Evonik has issued a special code of conduct for suppliers, which sets out binding requirements [p. 44](#).


¹ The code of conduct applies to a) all employees of Evonik Industries AG, b) all employees of companies where Evonik Industries AG directly or indirectly holds more than 50 percent of the shares or is able to exert a controlling influence in any other way, and c) the executive board of Evonik Industries AG and all managing bodies of the companies referred to in b).

Our global social policy sets out the principles of social responsibility and business ethics for our employees. As a member of the UN Global Compact, we have given an undertaking that, within our sphere of influence, we will actively respect and promote labor rights and human rights, avoid discrimination, protect people and the environment, and fight against corruption. In addition, we want to make a contribution to achieving the United Nations' 17 Sustainable Development Goals (SDGs). We have therefore identified the SDGs that are most relevant for us (see "Strategy and growth"  p.12).

As a signatory to the chemical industry's Responsible Care® Global Charter, we have an obligation to continuously improve our performance in health protection, environmental protection, product stewardship, and safety. Our ESHQE¹ positions are predicated on the protection of people and the environment. Together with more detailed policies and procedures, they form Evonik's ESHQE regulations.




Evonik is involved in many national and international competency networks in the area of sustainability. These include econsense—Forum for Sustainable Development of German Business, and Chemie³, the sustainability initiative of the German chemical industry. Evonik is also a member of the World Business Council for Sustainable Development (WBCSD) and is committed to its Vision 2050. We regularly report our climate and water performance to the CDP. Since 2020, we have also reported our contribution to deforestation-free supply chains.

Our sustainability reporting complies with the Global Reporting Initiative (GRI). We are a member of the GRI Community and support the mission of GRI to empower decision-makers everywhere, through the GRI Sustainability Reporting Standards and its multi-stakeholder network, to take action towards a more sustainable economy and world.  407-1, 408-1, 409-1

Human rights

Respecting human rights is a central element in corporate responsibility. We address the associated obligations throughout the company and along the value chain within our sphere of influence.

Our management approach

Evonik has various tools, principles of conduct, and guidelines to ensure we observe our human rights obligations. The fundamental importance of human rights for the Evonik Group is reflected in the executive board's policy statement on human rights, which is based on the Universal Bill of Human Rights, the International Labor Standards issued by the International Labour Organization (ILO), and the OECD's Guidelines for Multinational Enterprises. Human rights are part of our code of conduct and also form the basis for our global social policy. The human rights demands made on our suppliers are set out in a separate code of conduct. We regularly check compliance through our supplier validation and evaluation processes  p.44.

Our risk map shows potential human rights and labor law risks at country level. It is continuously updated. In the reporting period, we consolidated the number of indicators used to make it more user-friendly, without reducing its usefulness. This internal tool gives us insights into our sites, major supplier countries, and possible human rights risks. The sources used for the map include the Global Rights Index of the International Trade Union

The tools we use to safeguard human rights are:

Guidelines and principles of conduct

- Policy statement on human rights
- Code of conduct
- Global social policy
- ESHQE policy
- Code of conduct for suppliers
- General terms and conditions of purchase
- Safety at Evonik initiative

Control and risk management systems

- Human rights risk map
- Supplier validation and evaluation
- Business partner reviews
- Whistleblower hotline

Transparency and reporting

- Sustainability report
- Combined non-financial statement
- Reporting in compliance with the UK Modern Slavery Act
- Reporting in compliance with the California Transparency in Supply Chains Act
- Responsibility website  www.evonik.com/responsibility

Confederation (ITUC), the Global Slavery Index of the Walk Free Foundation, and the Global Childhood Report published by Save the Children. We also use MVO Netherlands' CRS Risk Check. We use the human rights risk map to define and implement measures to raise awareness.

¹ ESHQE = Environment, Safety, Health, Quality, and Energy.

We have put in place clear structures and processes for the validation and assessment of our suppliers. These cover aspects of human rights as well as employment and social standards.

Our business partner validation tool includes an adverse media check to identify possible violations of human rights. If a breach is detected, we initiate appropriate countermeasures and use the same system to monitor their implementation [p. 38](#).

Complaints mechanisms

Violations of human rights can be reported to Evonik via internal reporting channels and a whistleblower hotline operated by an external provider. Potential violations of human rights can also be reported via the same channels by employees and third parties who have a business relationship with Evonik, for example, suppliers, customers, and other business partners, or by victims. The anonymity of whistleblowers is protected if they do not wish to disclose their identity. All allegations are investigated internally. In 2021, Sustainability received two reports of human rights violations. One was examined by Sustainability and the other by a different organizational unit. Neither allegation proved founded [p. 40](#).

Awareness-raising activities

In view of the increasing importance of human rights in global supply chains, it is important to us to regularly raise the awareness of employees and business partners and sharpen their compliance with human rights. Based on the findings of our risk map, we have developed human rights training activities, which we have extended in recent years. They are used worldwide via internal communication platforms and e-learning modules. In these training sessions, our employees are given a general overview of human rights and the relevant Evonik regulations. Training was

conducted first in countries where the potential human rights risk is highest. Participants come from both administrative and operational functions.

Transparency and reporting

Transparent presentation of our human rights activities is an important part of our duty of care. We provide information via various channels, such as our combined non-financial statement, our sustainability report, and our responsibility website. Our annual statements on the UK Modern Slavery Act and the California Transparency in Supply Chains Act are published on our website. They contain information on the action we take to prevent modern slavery.

National action plan and human rights

The National Action Plan (NAP) adopted by the German government in 2016 ended with the monitoring phase in 2020. In light of the findings of the NAP monitoring, legislation on due diligence in supply chains was passed by both houses of the German parliament in summer 2021. The new law comes into force on January 1, 2023, and Evonik is working intensively to prepare for this [p. 38](#).

Our activities in 2021

A cross-functional project group is currently developing a concept for a human rights compliance management system. Initially, the aim is to meet the requirements of the German legislation on due diligence in the supply chain. In addition, it could map additional existing or future laws or other human rights legislation such as the EU supply chain legislation [p. 38](#).

Together with our employer branding team, we also produced and published some short videos on human rights for the #WhyWeDolt campaign. The Onboarding department makes all

important documents—including those on human rights—available to new employees via an internal social media community.

In its benchmark report in 2021, the Global Child Forum honored Evonik as an “achiever” in respecting children’s rights, giving us recognition for our policies, processes, and practices to systematize children’s rights. Together with the Boston Consulting Group, this benchmark evaluates the roughly 830 companies worldwide with the highest sales using 27 indicators and assigns them to the categories beginner, improver, achiever, and leader.



Corporate governance

As a specialty chemicals company with a presence throughout the world, good corporate governance with a long-term focus is essential for Evonik. The executive board and supervisory board are explicitly committed to responsible corporate governance and identify with the goals of the German Corporate Governance Code. We see respecting and applying the principles of corporate governance as important management tasks.

That starts with collaboration within the executive board and supervisory board and between these two boards. It also includes the relationship between Evonik and its shareholders and other people and organizations that have a business relationship with the company.

As provided for by the foreword to the German Corporate Governance Code, Evonik reserves the right not to implement certain provisions if departure from the recommendations is justified. The latest declaration of conformity with the requirements of the

German Corporate Governance Code has been published on our website.¹

Executive board

The executive board of Evonik Industries AG is responsible for running the company in the company's interests, taking into account the interests of the shareholders, employees, and other stakeholders. For details of the executive board's overall responsibility for sustainability, see "Strategy and growth"  p.12. The executive board discusses sustainability at its meetings several times a year, especially aspects relating to the environment, safety, and society.

When making appointments to the executive board, the supervisory board considers both the professional qualifications of the candidates and the other criteria it has defined for the executive board² as part of the diversity concept. These include, for example, a suitable mixture of ages, professional competencies, and fulfillment of the targets for the proportion of women on the executive board.

Percentage of women on the executive board and in management

For the period from July 1, 2017 through June 30, 2022, the supervisory board has raised the target for the proportion of women on the executive board from 20 percent to 25 percent. At present, one member of the executive board is female, and three are male, so it meets this target.

For the period from January 1, 2021 through December 31, 2024, the executive board has set a target of 30 percent female managers at the first and second management levels. At year-end 2021, the proportion of female managers was 26.9 percent at the first management level and 29.2 percent at the second management level.

Supervisory board


The supervisory board advises and supervises the executive board. It appoints the members of the executive board and names one member as the chairperson of the executive board. It also decides on the remuneration of the members of the executive board. The supervisory board examines the company's annual financial statements, the executive board's proposal for the distribution of the profit, the consolidated financial statements for the Evonik Group, and the combined management report. The executive board is required to obtain the approval of the supervisory board on decisions of fundamental importance, which are defined in a separate list. The supervisory board has the following committees: an executive committee, an audit committee, a finance and investment committee, an innovation and research committee, a nomination committee, and the mediation committee required by the German Codetermination Act.

The executive board provides regular, timely, and extensive information for the supervisory board on all matters of relevance for the company. Major sustainability aspects are included in context. On this basis, Evonik's sustainability activities were discussed at several meetings of the supervisory board in 2021.


In accordance with the provisions of the German Codetermination Act, the supervisory board comprises twenty members, ten of whom are representatives of the shareholders while ten are representatives of the workforce.


A minimum quota of 30 percent women is set by law. The supervisory board currently meets this requirement as it comprises six women and 14 men. Women therefore make up 30 percent of the total. The supervisory board takes diversity into account, both in its own composition and in appointments to the executive board. The supervisory board's diversity concept² includes rules on the independence and age of supervisory board members and their maximum term of office. Supplementary criteria apply for

the profile of skills and expertise of the supervisory board as a whole. These relate to the necessary knowledge and abilities of the members of the Supervisory Board, for example, international experience, a knowledge of business administration and science, and experience of managing a company.


You can find further information in the declaration on corporate governance, which is available on our website and also forms part of Evonik's financial report.²  102-21, 102-22, 102-23, 102-24, 102-25, 405-1


Performance-oriented remuneration of senior management

The supervisory board is responsible for the employment contracts with the members of the executive board. It sets the total remuneration package for each member of the executive board, comprising a basic salary, variable short- and long-term components, pension benefits, the reimbursement of expenses, insurance, and various other fringe benefits. The contracts with members of the executive board and all executives include remuneration elements based on personal performance and the overall performance of the Evonik Group. As one of our significant sustainability topics, occupational safety (accident frequency and severity) influences the remuneration of the executive board. In the future, the ongoing strategic development of sustainability management at Evonik will be reflected in the remuneration of the executive board and corporate executives through additional sustainability targets. The remuneration report 2021 provides further information on the remuneration of the executive board and supervisory board.³  102-35, 102-36, 102-37

In accordance with the recommendations of the German Corporate Governance Code, the supervisory board commissions a remuneration report (vertical comparison) to review the ratio of remuneration of the executive board to that of senior executives and Evonik's workforce. The results are confidential and are not published.  102-38, 102-39

¹  <https://corporate.evonik.de/en/investor-relations/corporate-governance/german-corporate-governance-code>

²  www.evonik.com/declaration-on-corporate-governance

³  www.evonik.com/remuneration-report

Opportunity and risk management

Since it operates globally, Evonik is exposed to a range of influences along the entire value chain that may be either opportunities or risks.

Our risk management includes all potential risk areas using a multi-disciplinary approach. Complete and timely identification and mitigation of risks is therefore the basis of our extensive opportunity and risk management. This takes into account financial and non-financial risks such as occupational and plant safety, product stewardship, health protection, and climate change.

 202-2


The risk management process at Evonik

C14


Environment & Input Factors



Risk reporting is both the starting point and outcome of our continuous risk management process. Risk coordinators identify internal and external risks in their organizational unit and report them in the group-wide risk reporting system (**identification**). Risk **assessment** uses clear and uniform criteria to allow classification and prioritization. The measures selected and implemented to manage risks are designed to limit the likely damage caused by the risk factors and/or their probability of occurrence (**controlling**). Progress with the measures implemented and the development of the risks over time are tracked (**monitoring**). Monitoring only becomes unnecessary when a risk actually occurs, becomes obsolete, or is reduced to an insignificant level. All organizational units are required to update their risk reports every quarter and to immediately report any ad-hoc risks, even outside the regular reporting intervals (**reporting**).

Our established risk management system systematically captures and monitors both quantifiable and non-quantifiable risks in the present fiscal year and the mid-term period. Further, we identify non-financial risks through our value chain analysis, which is conducted for selected PARCs¹ at the request of our business lines (see “Strategy and growth,”  p.18). We use an outside-in perspective to examine potential opportunities and risks in end-markets, for example, as a result of ecological and social trends, new technologies, and more stringent regulatory requirements. The findings are bundled in strategic recommendations for action and influence the strategy of the relevant operating businesses.

Further information on risk management can be found in the opportunity and risk report in the financial report 2021.²

We are following the objectives of the **Task Force on Climate-related Financial Disclosures (TCFD)** very closely and address them in one of our cross-functional working groups. Our opportunity and risk management system covers the categories defined by the TCFD: governance, strategy, risk management, and metrics and targets. Climate-related opportunities and risks are included. We publish a TCFD index in our financial report and our sustainability report (see “Basis of reporting”  p.119). From the project initiated in 2020 to determine the extent to which our risk management system already meets the TCFD requirements, we have derived measures for further development of the risk management system, for example, by flagging climate-related risks.

Examination of extreme risks for the first time

We continuously align our risk management system to new requirements. Following the revision of the audit standard IDW PS 340, we examined extreme risks for the first time in 2021. Extreme risks are incidents that could cause a crisis, for example, as a result of a major fire, cyberattack, or the collapse of supply chains. There is a very low probability that risks of this type will occur, but their impact on our business would be very extensive, and they could substantially jeopardize the company’s status as a going concern. To raise awareness of extreme risks among our risk coordinators and other decision-makers, in 2021 we launched an interdisciplinary project with internal experts from Corporate Foresight. The aim is to enhance our risk culture. In particular, we want to sharpen awareness of long-term risk scenarios. The scenarios examined included, for example, a major earthquake in the Rhine delta, another pandemic, and a rapid rise in the sea level.

¹ PARC = product-application-region combination.

²  www.evonik.com/Financial_Report

Business ethics and compliance

The compliance areas of specific relevance to Evonik are bundled in a House of Compliance. Each area defines and monitors relevant rules for its compliance-related issues and the voluntary commitments entered into by Evonik.

Responsibility for the environment, safety, health, and quality is bundled in a corporate function with the same name (see “The environment” [p.73](#)).

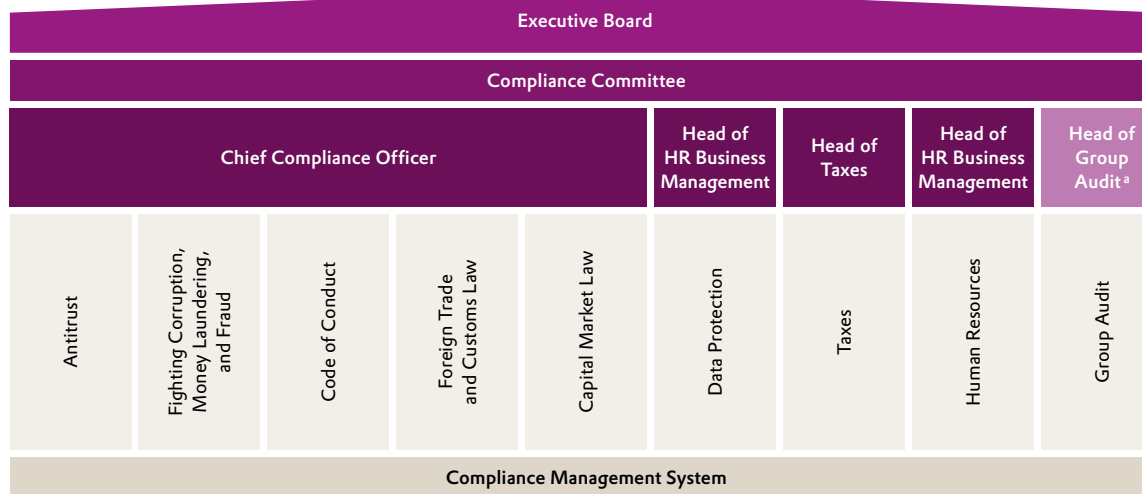
Minimum group-wide standards have been defined for the compliance management systems for the areas covered by the House of Compliance, and we make sure that they are implemented. Final responsibility for this rests with the executive board, which defines the key elements and ensures they are observed. The supervisory board’s audit committee monitors the effectiveness of the system. The process of forming a consensus, sharing experience, and coordinating compliance activities takes place in the compliance committee, which is composed of the heads of the respective units, who have independent responsibility for their areas, and the head of Group Audit. Group Audit performs independent audits to support the executive board and subsequent management levels in the performance of their supervisory duties and continuous improvement of business processes. A key focus is auditing the internal control system and the risk management system.

Compliance management system

The compliance management system is based on the values and targets adopted by the executive board. Its main aim is to avoid, or at least minimize, violations and the associated risks. The objective is to identify violations and impose sanctions based on

House of Compliance [102-16, 102-17, 205-1, 403-2](#)

C15



^a Advisory role.

their severity. The heads of the compliance departments work to make sure the compliance management system is appropriate and effective for the respective compliance issues.

Principle of prevention

Tools used to avoid potential compliance risks include risk analysis, training, raising awareness, and providing advice. We examine all sites, not just individual business locations, with a view to the topics covered by the House of Compliance such as corruption risks.

To identify potential risks as early as possible, every unit is required to perform regular **risk analyses**. Based on the results of its risk analysis, each organizational unit issues binding standards and processes for the precautions to be taken with regard to business activities where there are specific compliance risks. The topics forming the focus of the risk analysis and the action taken may vary over a given period. As soon as a topic is examined, the main risks are reported to the management and governance bodies at the company concerned, depending on their type and extent. A regular risk analysis is undertaken in the compliance areas fighting corruption, antitrust law, and preventing money laundering.

We have conducted risk analyses for the following compliance issues:

- Antitrust law and fighting corruption (2015 to 2017)
- Anti-money laundering (2017 to 2019)
- Antitrust law, anti-money laundering, and fighting corruption, with a specific focus on procurement (2018 to 2020)

Taking the mitigating measures into account, these risk analyses did not identify any significant compliance risks. This wide-ranging process is scheduled every three to five years, with substantial changes in the risk situation giving rise to a specific review during the period.

In the reporting period, the House of Compliance defined common standards for a compliance risk analysis of the units involved. The risk analysis process is to be digitalized from 2022 so that risk analyses can be performed at short notice if circumstances make this necessary.

Group-wide training concepts have been developed for all aspects bundled in the House of Compliance. They define the type, frequency, and content of **training** and the target groups. Each organizational unit is responsible for realizing these concepts. We pay special attention to training in the areas of antitrust law, fighting corruption, anti-money laundering, and the code of conduct. Participants are allocated to three levels on the basis of risk. See table T04:

GOVERNANCE AND COMPLIANCE

Responsible management and human rights

Uniform group-wide training concept

T04

Topic	Description
Topics covered	Antitrust law
	Fighting corruption
	Code of conduct
Selection of target group	Anti-money laundering
	Job function and qualifications
	Uniform risk criteria
	Risk level: none—low—high
Frequency ^a and type	Differentiation between compliance issues
	Low risk: approx. every three years → mandatory e-learning sessions High risk: approx. every two years → mandatory face-to-face and e-learning sessions (alternating)

Compliance Management System (CMS) 102-17, 205-1, 403-2, 407-1, 408-1, 409-1

C16



^a Training can be held more frequently, if necessary, e.g., if there are changes in the legal framework or statutory requirements.

Each unit is responsible for making employees aware of the importance and scope of the rules on each compliance topic. That includes advising and supporting them in questions relating to a particular issue. This allows timely identification and evaluation of risks. In training sessions, employees are given information on where they can seek advice.

Principle of detection

All employees are required to report possible or actual violations of the code of conduct to the responsible department or compliance officer without delay, regardless of whether they relate to them personally or to their colleagues. In addition to internal reporting channels—in writing by email or letter, by phone, or orally to the responsible compliance officer, **electronic whistleblower**

hotlines operated by independent external providers are available group-wide for the detection of possible compliance violations. Both employees and external stakeholders such as business partners and their employees, local residents near our sites, and employees' families can report suspected compliance violations via the **whistleblower hotlines**, which are available in 20 languages. Reports are possible on all key compliance issues and are automatically forwarded to the department responsible for the relevant compliance topic.

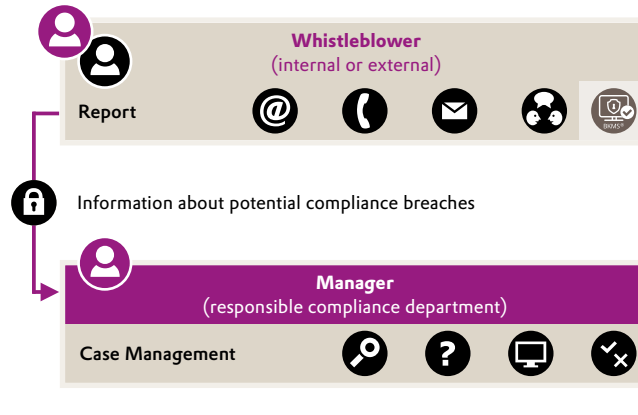
The whistleblower hotline is certified as conforming with European data protection legislation. Protecting data and whistleblowers has top priority. The data are stored on protected servers in Germany. Technical security measures mean that neither Evonik nor the external provider can draw conclusions about the identity of whistleblowers if they prefer to submit their report anonymously. The content of the report is processed exclusively by Evonik. Neither the external operator nor third parties can view the reports submitted.

Evonik takes up all allegations and investigates them internally. To protect whistleblowers, the general principles set out in the policy on internal investigations include security measures such as forbidding putting them at any disadvantage.

The group-wide policy and related operating procedure also set out uniform principles and process requirements for the conduct

Whistleblower System at Evonik 102-17

C17



^a External Whistleblower System. Guarantees anonymity, if desired by whistleblower.

of internal **investigations** into suspected compliance violations. Moreover, possible immediate and follow-on measures to eliminate such violations are defined. These internal regulations apply to the units in the House of Compliance and other organizational units that conduct internal investigations.

Every organizational unit must regularly check the appropriateness and effectiveness of its compliance management system. In addition, regular **reviews** are performed by Group Audit.

Principle of response

We initiate suitable measures to end the violation and minimize the risk. Depending on the severity of the case, disciplinary action ranges from warnings or reprimands to redeployment or dismissal. In addition, further action is taken to raise awareness, for example, through training.

Our compliance reporting

Our annual compliance report mainly provides information on the compliance organization and issues specific to the compliance management system. The report on internal investigations presents the internal investigations conducted during the year. Both reports are prepared for the executive board, division heads, and the management board of Evonik Operations GmbH. They are also made available to the supervisory board's audit committee. Furthermore, the audit committee and executive board are informed of relevant risks and developments— insofar as is deemed necessary in individual cases— both during the year and on an ad-hoc basis in urgent cases. This applies to all material risks and violations of regulations that are of overriding significance for the Evonik Group.

Moreover, we have introduced half-yearly reports on internal investigations, training, key activities, and risks. These are aimed at the divisions, the management board of Evonik Operations GmbH, and the regions. This target group also receives ad-hoc notification of material risks and breaches of regulations where appropriate. We also communicate relevant risks and issues to other line managers.

Compliance rules for business partners

Evonik has issued a special code of conduct for suppliers, which sets out binding requirements (📄 p.43). Intermediaries, above all sales intermediaries, are subject to a compliance check before the establishment of the business relationship and normally every five years thereafter. They also have to sign a compliance declaration. Risk-based compliance checks (due diligence) and any necessary measures are also applied to business partners involved in acquisitions, joint ventures, corporate venture projects, and major investment projects. These are based on uniform rules for the Evonik Group. 🌐 102-17

Our activities in 2021

The measures implemented in 2021 include:

- The IT-based system used by various departments throughout the Evonik Group to validate business partners was extended and optimized. The focus was on cross-functional collaboration and communication, including improving the usability and transparency of sub-processes. We expect this to further simplify the initiation and monitoring of action.
- In mid-year, the Compliance function embarked on a cross-functional project to implement the German law on due diligence in the supply chain at Evonik. This focuses on questions relating to project organization, legal interpretation, evaluation of the appropriateness of existing risk analyses, prevention and mitigation measures, and the complaints system. A corresponding concept for a human rights compliance management system was presented to the executive board, which acknowledged it with approval. The audit committee is kept informed of all progress made.

Business Partner Assessment at Evonik

C18

5. Measures & monitoring

- By departments, e.g.,
 - Measures to raise awareness
 - Monitoring
 - Notification of authorities
 - Termination of business relationship
- Legally secure documentation

4. Evaluation

- Evaluation of findings by departments based on pre-defined criteria
- Uniform traffic light system
- Involvement of other departments via a workflow-based IT solution



1. Business partners

- Defined by the relevant departments
- Basically, all types of business partners

2. Initiators

- Abstract criteria defined by the relevant departments
- External drivers, e.g., laws and standards
- Internal drivers, e.g., Evonik's internal regulations

3. Screening and pre-evaluation

- By an external provider
- Various levels, e.g.,
 - Database searches, sanctions, and watch lists
 - Media & internet
 - Corporate structure and ultimate beneficial owner
 - On-site verification

- An external auditor was engaged to conduct a risk analysis of our internal measures to avoid fraudulent payments.
- We extensively revised our internal guidelines on gifts, invitations, and other benefits. The updated corporate policy increases the personal responsibility of employees when evaluating such benefits. At the same time, it gives employees

specific guidance on cases where benefits are permitted and when they are not permitted. Furthermore, we have selected an IT tool for checking and documenting such benefits, especially where risks are involved. The new rules and the IT tool will be introduced in the first half of 2022 and rolled out stepwise across the entire Evonik Group.

🌐 102-17, 407-1, 408-1, 409-1, 418-1

Training

For the compliance areas antitrust law, fighting corruption, anti-money laundering, and code of conduct, we report a training rate for 2021. This is defined as the number of training candidates with a valid certificate relative to the total number of training candidates. The data refer to both face-to-face training and e-learning. The chief compliance officer normally reports to the executive board once a quarter on the present status of compliance, including fighting corruption. In the reporting period, face-to-face training sessions were mainly conducted through webinars.

[205-1, 205-2](#)

Fines and other sanctions

In 2021, the annual compliance reporting for the areas in the House of Compliance and Group Security, ESHQ¹, and IT Security included a structured survey to identify significant fines (> €100,000) and non-monetary sanctions resulting from failure to comply with laws or regulations. No such fines or sanctions were imposed in 2021. [419-1](#)

Legal proceedings resulting from anti-competitive conduct or the formation of cartels and monopolies

There were no pending antitrust proceedings in the reporting period. [206-1](#)

Compliance training and training rate 2021^a

T05

	Anti-money laundering		Antitrust law		Fighting corruption ^b		Code of conduct ^c	
	Training candidates, total	Training rate in %	Training candidates, total	Training rate in %	Training candidates, total	Training rate in %	Training candidates, total	Training rate in %
Worldwide	4,872	96	4,513	83	14,137	92	30,609	89
Management functions	2,125	97	2,897	81	7,559	91	8,146	89
Executives ^d	34	94	107	82	156	92	156	92
Senior management ^e	94	99	300	80	466	93	469	93
Other management levels ^f	1,997	97	2,490	81	6,937	90	7,521	89
Non-management functions	2,747	95	1,616	88	6,578	94	22,463	89
Job functions								
Production & Technology	4	100	133	80	3,261	92	13,225	87
Innovation Management	–	–	677	84	2,976	97	4,535	96
Marketing & Sales	1,681	97	1,525	80	1,618	78	1,701	78
Administrative functions	3,187	95	2,178	85	6,282	93	10,050	91
Other ^g	–	–	–	–	–	–	1,098	85
Regions								
Asia-Pacific	1,136	99	1,055	81	2,137	93	3,528	94
Central & South America	290	84	174	79	381	86	707	78
Europe, Middle East & Africa	466	94	409	71	1,066	73	2,742	71
North America	784	89	753	80	2,143	89	4,770	79
Germany	2,196	98	2,122	88	8,410	95	18,862	94

^a The training rate is defined as the number of training candidates with a valid certificate relative to the total number of training candidates as of December 31, 2021. All training reported in the system is included.

^b We do not explicitly provide the disclosures on the training of business partners required by GRI 205-2.

^c Executives = executive functions, i.e., top management functions in the Evonik Group.

^d Senior management = senior management functions, i.e., key functions in the divisions, regions, service units, and corporate divisions.

^e Other management levels = further management functions.

^f Other = apprentices, apprentices outside Germany, non-permanent staff.

¹ Including failure to comply with environmental laws and regulations.

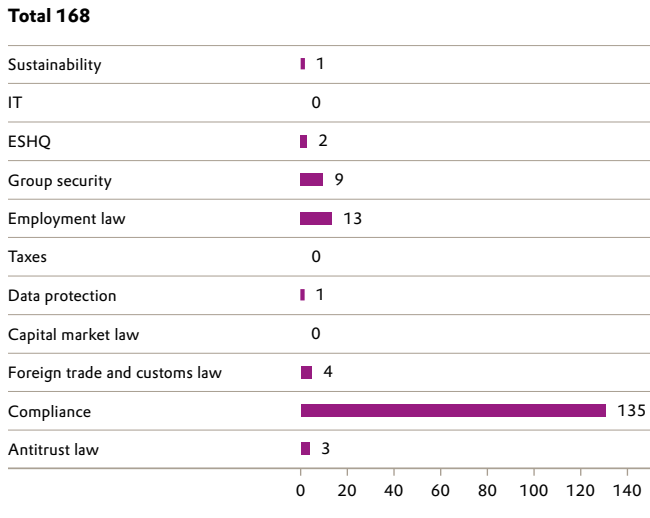
Internal investigations into compliance violations

In the reporting period, the departments responsible for conducting investigations reported 168 initial **evaluations** of alleged compliance violations. Chart **C19** shows their distribution between the investigating departments.

As a result of these allegations, 136 **internal investigations** of suspected compliance violations were reported to us. Of the 96 cases reported by the compliance function, 73 related to payments fraud, all of which related to third parties outside the Evonik Group.

Reports of suspected compliance violations

C19

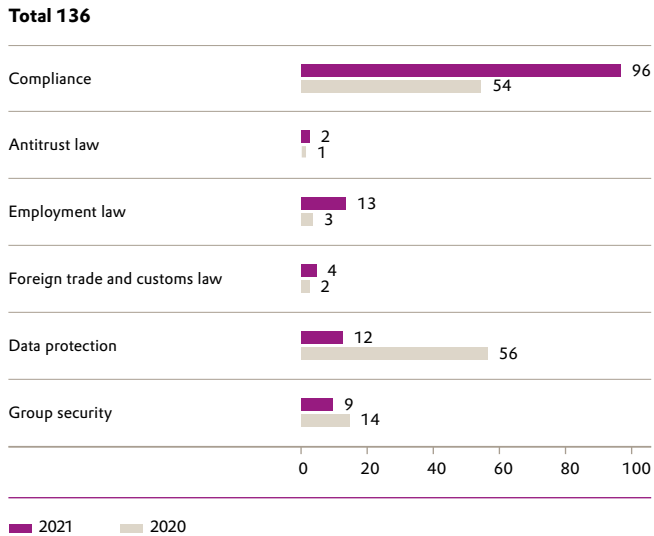


Based on the investigations concluded by year-end, 152 **measures** were taken: 17 employees were dismissed and another five received a warning or reprimand. Five contractual relationships were terminated and future business with the contacting parties banned. Special training and awareness-raising measures were taken in 14 cases. In addition, 111 individual measures were implemented based on the specific nature of the cases. **307-1**

The other measures shown in the chart comprise the internal action taken, especially in the case of payments fraud, for example, flagging the SAP master data of the business partner with a corresponding warning, (temporary) bans on data interchange, and permanently blocking fake domains.

Internal investigations reported

C20



GOVERNANCE AND COMPLIANCE

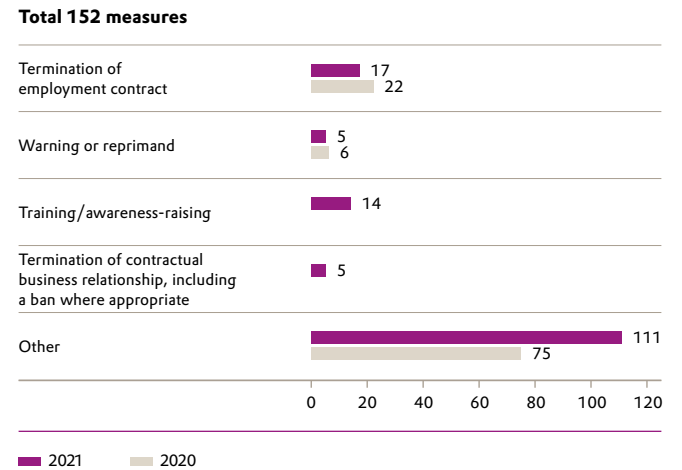
Responsible management and human rights

Confirmed incidents of corruption and action taken

In the reporting period, four cases of suspected corruption were investigated. In addition, one case involving allegations of both corruption and fraud was investigated. In two cases, internal investigations confirmed the suspicions. Both cases were in China. As a result, four employees were dismissed, one reprimand was issued, and the business relationship with a supplier was blacklisted for the future. Further business relationships with dealers and customers are to be reviewed. In addition, broadly based communication was undertaken to remind people of the applicable compliance rules. In Evonik's view, in both cases, appropriate action was taken to prevent a recurrence. **205-3**

Action taken¹

C21



¹ In some cases, more than one measure was taken in connection with the investigation.

Cybersecurity

Cybersecurity affects IT throughout the Evonik Group, including both office systems and IT for operational technology (OT). The chief financial officer bears overall responsibility for cybersecurity. The chief information officer (CIO), who reports directly to the CFO, is responsible for cybersecurity at operational level. The CIO and chief IT security officer (CISO) report regularly to the CFO on the related tasks and risks, as well as the appropriateness and efficacy of the IT security management system. Our IT security organization includes a central cybersecurity operation center, which protects Evonik's digital territory and brings together the important operational IT security functions. The cybersecurity operation center includes the cyber defense team, which is based in Germany and is responsible for identifying and dealing with IT security incidents. We use a global network of experts and partners to counter cyberattacks. In addition, we are a member of various professional cybersecurity associations and working groups and have been certified since December 2020.

Evonik's cybersecurity framework comprises a binding group-wide functional policy, group-wide standards, and standard operating procedures for IT and OT. To protect its information and IT systems, Evonik uses the international security management system ISO 27001 and, for OT, IEC 62443. In 2020, the IT function was certified under ISO 27001.

There is a binding technical document containing supplementary information security rules for OT. This describes the OT security management system, including the roles in the OT security organization.

We continuously review our extensive security measures to prevent attacks by third parties and invest in technical and organizational measures to identify and ward off such attacks. This is part of the cybersecurity enforcement program. Among other things, this program classifies our employees in cyberattack protection groups. In addition, the security measures at Evonik are to be tightened for employees and applications exposed to high risks. In the reporting period, a new level (CAP4) was therefore added to the CAP system introduced in 2020. For risk-based checking and improvement of the security of IT systems, we carry out regular penetration tests and IT security audits.

We drive forward and monitor the implementation of our security measures for the operation and use of IT with the aid of an internal management system. In this way, we keep a constant eye on the present threats and align our security measures to them. Our cybersecurity performance is measured and evaluated by the external rating agencies BitSight and CyberVadis using standardized parameters. Evonik's current rating positions it in the top third of the manufacturing industry peer group. Evonik increasingly uses digital networking in its collaboration with suppliers, partners, and customers and develops special cybersecurity measures for this purpose.

Posters, training, awareness-raising videos, and interactive events such as the Evonik learning sessions are used to heighten awareness and give employees understandable information. Similarly, awareness is actively sharpened by regular phishing test campaigns. Moreover, we use a compulsory online report and

GOVERNANCE AND COMPLIANCE

Responsible management and human rights

interactive training for all system administrators to strengthen the risk awareness of this mission-critical group of employees. In addition, our employees are given regular training to make sure that they are alert to cyber threats. Timely information on current security threats is communicated via the intranet. With the new Cyber Security Resilience Program—known as CRISP—the Evonik Group aims to protect itself against increasingly aggressive, state-motivated cyberattacks.

-620 metric tons CO₂ p.a.
thanks to the
Green Data Center


Green Data Center

We attach great importance to energy efficiency and continuously optimize the energy profile of our computer centers. For our central computer center services, this is undertaken in conjunction with a co-location provider. Since mid-2021, Evonik has had an agreement with this provider that it will only use green electricity that does not generate any CO₂ emissions or radioactive waste. Based on previous consumption and compared with the regular energy mix, this reduces our annual CO₂ emissions by about 620 metric tons.

Management of data protection

Protection of personal data is one of the principles used by Evonik to shape its relationship with employees, job applicants, customers, suppliers, other business partners, prospects, and other people affected. Conscientious handling of personal data is one of the indispensable values that Evonik is committed to out of respect for people's privacy. Progressive digitalization requires appropriate conditions to be in place to ensure this. For example, global data sharing requires appropriate technical and organizational security measures. These are monitored continuously and adapted as necessary.

The organization of data protection and rules on reliable processing of personal data, including customer data, are set out, among other things, in the compliance policy and the group-wide data protection policy. The aim of data protection management is to ensure compliance with the regulations and support the organizational units in implementing them. It also monitors the correct use of data processing.

Target group-specific data protection training of our employees is mandatory. Information on the relevant requirements and responsibilities is available to all employees on our group-wide intranet. Data protection incidents are dealt with in accordance with the statutory and in-house documentation, information, and reporting obligations. In 2021, Evonik did not receive any complaints from customers relating to the loss of data or violation of data protection rules.  418-1

Tax¹

The payment of taxes is a central link between legislators, states, local authorities, and companies. We affirm our responsibility to stakeholders in the countries where we operate. As well as levying taxes correctly, this includes timely and complete payment of taxes and credibility and transparency in all tax matters. Tax planning is based exclusively on economic principles using Evonik's business model and corporate values. We reject aggressive tax strategies geared exclusively to tax avoidance.

The Tax department is one of the units assigned to our House of Compliance, which is responsible for setting minimum group-wide standards for compliance management systems— including tax compliance. In our code of conduct, the executive board has defined principles for tax strategy. These are published on our website.²


Evonik strives for a high level of transparency and a stable legal basis in tax matters. In accordance with the applicable national provisions, we make all relevant facts and circumstances transparent. We communicate openly and constructively with public institutions and local fiscal authorities around the world. In addition, Evonik plays its part in the development of tax legislation and administrative instructions, as well as in the academic debate on aspects of tax policy.


Tax compliance and management of tax risks


In the interests of tax compliance, the Evonik Group gives top priority to prompt and full settlement of all tax liabilities in accordance with the applicable laws, directives, contracts, and legal judgments. Other tax compliance objectives are optimizing and steadily extending the internal tax control system and mitigating tax risks.

In 2021, we successfully passed an appropriateness test for the tax compliance management system, which was conducted by an external auditor in accordance with IDW PS 980.

A group-wide tax policy sets out the fundamental responsibility, together with the associated tasks, accountability, authorizations, and guidelines for the fulfillment of our tax obligations. This policy defines how those involved work together in order to meet Evonik's obligations and allocates tasks and responsibilities.

Evonik has a decentralized group-wide risk management system, which includes effective and appropriate management of tax risks. This provides for systematic identification, analysis, evaluation, monitoring, and minimization of tax risks as well as communication of the risks. Information on the violation of tax compliance obligations can be reported anonymously via a whistleblower hotline run by a third party ( p.37).

¹ Voluntary reporting in accordance with GRI Standard 207: Tax 2019. This section refers to the disclosures  207-1, 207-2, 207-3.

²  <https://corporate.evonik.de/en/responsibility/sustainable-investment/evonik-positions>

Donations to political parties

The executive board defines the aims and conditions for the Evonik Group's donations and sponsorship. It has delegated coordination and monitoring to the Board Office and Communications functions on the basis of specific policies and guidelines. For example, the approval of the executive board is required for individual donations of supra-regional significance and sponsorship from a threshold of €100,000. The divisions and regions can decide on regional and site-specific activities within an annual budget approved by the executive board. At the Evonik Foundation, the management is responsible for coordinating and supervising donations. The executive board of the Evonik Foundation defines the areas of focus.

The Evonik Group made many donations and was involved in many sponsorship projects in the reporting period. Information can be found on our websites. As part of its responsibility to society, Evonik supported the political parties in Germany's coalition government and the centrist opposition parties with donations totaling €105,000. Of this amount, €45,000 was donated to the CDU, €40,000 to the SPD, and €10,000 each to the FDP and Bündnis 90/Die Grünen. Evonik does not make any donations to political parties outside Germany.

In 2021, Evonik renewed and refined its entry in the European Transparency Register, the list of lobbyists maintained jointly by the European Commission and European Parliament.

[102-25, 415-1](#)

Responsibility within the supply chain

Evonik has a significant influence on society and the environment through its procurement volume. We are aware of this responsibility. Together with our suppliers, we drive forward transparency and sustainability along the value chain.

Strategy and management

By selecting suppliers carefully, we do not simply secure and increase their sustainability standards, we also enhance the quality of the entire value chain. Our focus is on validating and evaluating suppliers. Suppliers of certain critical raw materials are subject to a special examination. We define critical raw materials as all raw materials that could potentially involve a supply risk or reputational risk, such as conflict minerals and renewable raw materials, including palm oil. We have established specific procurement strategies for these critical raw materials. The processes are integrated into a management system, where they are mapped. As well as monitoring suppliers of critical raw materials, we aim to examine the sustainability of all major raw material suppliers¹ by 2025.

Continuous dialogue with our suppliers is very important for us. In addition to direct contact to Evonik's procurement organization, employees at supplier companies always have the option of reporting any issues or problems to our externally operated whistleblower hotline. All cases are examined promptly so that appropriate action can be taken. In 2021, one issue relating to a supplier was reported, and appropriate action was taken.

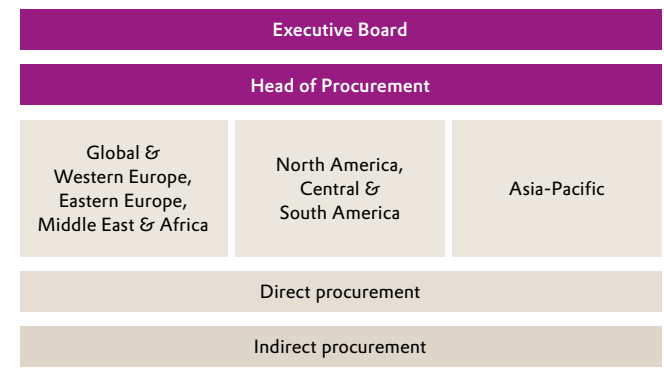
GOVERNANCE AND COMPLIANCE

Responsibility within the supply chain

The aim of our procurement organization is to guarantee long-term reliability of supply for the production of Evonik products and to secure competitive advantages for our operating businesses. Alongside economic requirements, our procurement strategy takes account of criteria such as health, quality, safety, social factors, and environmental protection. As a member of the UN Global Compact, we are committed to its principles. These requirements are documented in our code of conduct for suppliers, which is based on our corporate values, the principles of the UN Global Compact, the International Labor Standards issued by the International Labour Organization (ILO), and the topics addressed by the Responsible Care® initiative.

Evonik's procurement organization

C22



Procurement is organized globally at Evonik and comprises direct procurement (raw materials, logistics, and packaging) and indirect procurement (general and technical goods and services). Both are subdivided into strategic and operational procurement activities.

¹ Annual procurement volume > €100 thousand.

Global procurement is managed from Germany, with the support of regional units in Asia and North and South America.

The validation and evaluation of our suppliers are an integral part of sustainable supply chain management at Evonik. The validation of new suppliers includes checking that they meet the requirements of our code of conduct for suppliers. In our evaluation of suppliers, special attention is paid to our strategic suppliers and suppliers of strategic raw materials. Strategic suppliers and raw materials are defined as those identified by the operational units as being of high significance for our business performance. These may be key raw materials or single-source situations. We work systematically both to extend strategic relationships with suppliers and to validate new suppliers. To supplement our code of conduct for suppliers, our approach includes self-assessments, audits, and validation of suppliers through the Together for Sustainability (TfS) initiative.

Together for Sustainability

Harmonizing global standards in the supply chain creates transparency and makes it easier for both suppliers and customers to reliably assess and evaluate sustainability performance. The chemical industry set up the TfS¹ initiative for this purpose in 2011. Evonik is one of the six founding members. The aim of TfS is the joint development and implementation of a global assessment and audit program for responsible procurement of goods and services. It also provides webinars and training on sustainability. In this way, TfS does not simply make environmental and social standards in supply chains measurable; it also helps to bring about a direct improvement.

Validation and evaluation of suppliers

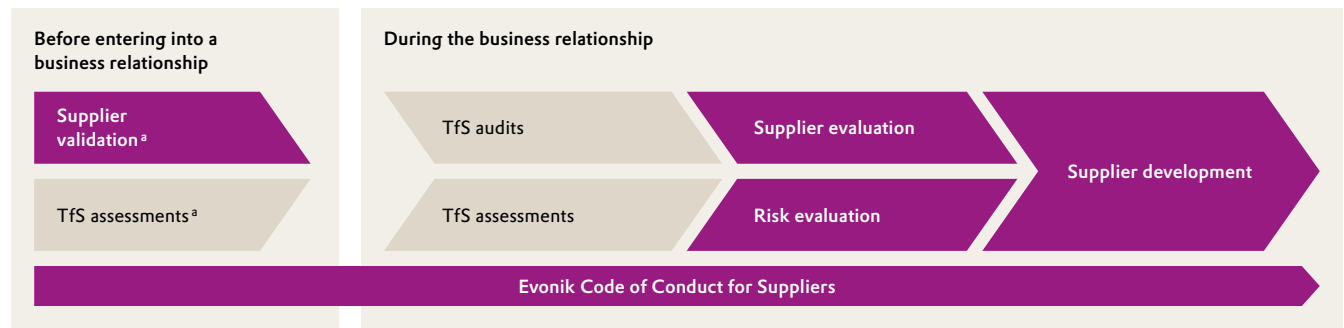
We expect our suppliers to share our principles and act correctly in all respects, which means accepting responsibility towards their employees, business partners, society, and the environment. Validation is the first step in every new supply relationship. For this purpose, we use a validation process based on the values defined in our code of conduct for suppliers. Alongside quality, environmental protection, safety, health, and energy management, the assessment of potential risk factors includes corruption prevention, cybersecurity, labor and social standards (the right to freedom of association and collective bargaining), human rights (compulsory, forced, or child labor), conflict minerals, and responsibility within the supply chain. All details are entered online and evaluated using a validation matrix. The initial validation is a country-based process and does not include a separate

review of the location of operations. All suppliers are informed about corruption prevention and the related measures in our code of conduct for suppliers and our general terms and conditions of purchase. In 2021, we evaluated 1,754 new suppliers. That was over 92.6 percent of new suppliers.

Successfully completed TfS assessments can also be used as evidence of validation. Overall, suppliers are evaluated using a method that identifies and quantifies risk factors as a basis for risk mitigation. This safeguards the supply of raw materials and technical goods to Evonik and enables us to gain access to new procurement markets and suppliers. In the reporting period, TfS assessments were performed on 108 new suppliers of raw materials, technical goods, and services.

Supplier validation and evaluation

C23



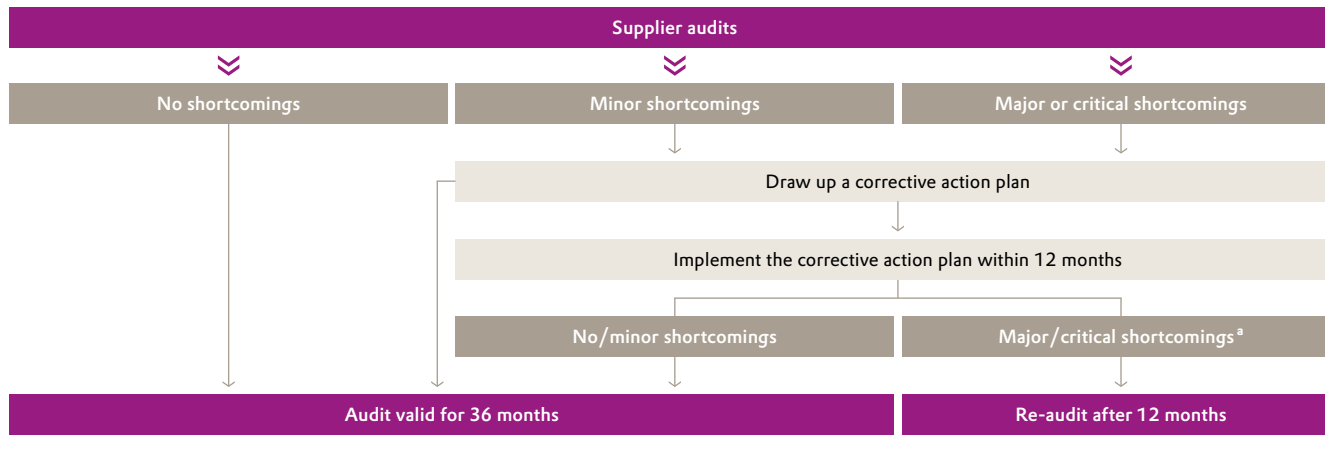
■ TfS process. ■ Evonik process.

^a Alternatives

¹ For further information see www.tfs-initiative.com

Audit escalation process

C24



^a If the shortcomings are particularly serious and no improvement can be identified, we reserve the right to end our collaboration with the supplier.

We apply the same care to the evaluation of existing relationships with suppliers. In addition to the annual evaluation of all significant supplier relationships (above a defined annual procurement amount), a more detailed review of strategic suppliers is undertaken. On the basis of the findings, measures are initiated as required (see C24). To minimize the risk to Evonik, as part of our management of contractors, evidence and self-assessments on compliance with the relevant German legislation (MiLoG¹, AEntG¹, SGB¹, and HwO¹) were obtained and evaluated.

[102-16](#), [407-1](#), [408-1](#), [409-1](#), [414-1](#), [414-2](#)

There is a clear and structured process for supplier audits, including various escalation steps. If shortcomings are identified, we expect

our suppliers to implement corrective action plans within a defined timeframe. If the shortcomings are particularly serious and no improvement can be identified, we reserve the right to end our collaboration with the supplier.

Conflict minerals

The Dodd-Frank Act requires companies listed on the US stock market to disclose whether or not their products contain potential conflict minerals. These are mineral raw materials from the Democratic Republic of Congo and its neighboring countries that are often used to finance armed conflicts. In addition, human rights are often violated in the production of conflict minerals.

Evonik is not listed on US stock exchanges and therefore has no legal obligation to comply with the reporting requirements of the US stock market regulator. Nevertheless, we believe we have a responsibility to check the origin of such substances sourced from established suppliers. In addition, we require new suppliers to provide evidence of origin in the validation process. In 2021, we screened 1,754 new suppliers and did not identify any use of conflict minerals.

Our activities in 2021

In 2021, we sourced raw materials and supplies, technical goods, services, energy, and other operating supplies with a total value of €10.4 billion (2020: €8.0 billion) from around 35,000 suppliers. Local sourcing accounted for around 76 percent of this amount² (2020: 71 percent). Raw materials and supplies accounted for 57 percent of procurement volume (2020: 52 percent). Spending on petrochemical feedstocks was around €3.7 billion and accounted for 62 percent of our raw material base. [204-1](#)

Worldwide, the TfS³ member companies initiated 284 audits and 1,345 assessments in 2021. Evonik initiated 16 of these audits and 176 of the assessments. About 83 percent of our direct and over 59 percent of our indirect procurement volume was covered by TfS assessments.

We achieved our target of conducting a sustainability assessment of 90 percent of suppliers of critical raw materials in 2019. We have therefore extended our target and now aim to evaluate the sustainability of all major raw material suppliers by 2025. Around 69 percent of major raw material suppliers had been reviewed by year-end 2021 using sustainability criteria.

¹ MiLoG = German Minimum Wage Act; AEntG = German Employee Secondment Act; SGB = German Social Code; HwO = German Ordinance on Craftsmen.

² For us, local sourcing means deliberate procurement from sources that are geographically close to our production sites.

³ The results of the audits and assessments by EcoVadis and TfS were outside the scope of the auditor's limited assurance engagement.

Sustainability performance of Evonik suppliers¹

C25

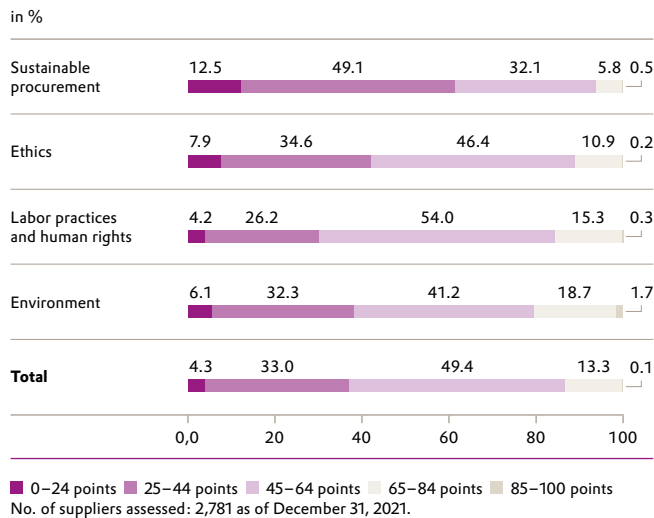


Chart C25 shows the sustainability performance of our suppliers in the various evaluation categories used by the EcoVadis ratings.¹ Taking all criteria together, around 63 percent of our suppliers are within our target range of 45 to 100 points.

A particular focus in the reporting period was the process of following up on audits and assessments. Corrective action was initiated with seven suppliers, where major or critical issues were identified during audits. In 24 cases, supplier assessments showed that insufficient attention had been paid to sustainability aspects. In these cases, as well, corrective action was initiated. 65 suppliers showed an improvement in the follow-up to the previous audit/assessment. In particular, shortcomings in the implementation of environmental measures and potential for improvement in

occupational safety were identified at suppliers audited by TfS. None of the suppliers evaluated had significant negative impacts on the environment. A critical result was identified in only one case. This related to social aspects, and action was taken to eliminate it. There were no cases of discrimination or restriction of the freedom of association.

📍 406-1, 407-1, 408-1, 409-1

The total of 1,946 suppliers evaluated comprises audits, assessments, and supplier validations performed by TfS and directly by Evonik.

Active involvement in TfS is important to us. Evonik employees are represented on TfS workstreams in Germany, North and South America, and Asia. In 2021, webinars were held for suppliers in the Asian region and at a global level. In addition, Evonik is actively involved in the TfS workstreams. As a member of the TfS initiative, we are also subject to TfS assessments. At the start of 2021, EcoVadis awarded us platinum status for the first time, based on the assessment initiated in 2020. This award places

GOVERNANCE AND COMPLIANCE

Responsibility within the supply chain

Evonik among the top 1 percent of the companies evaluated by EcoVadis in both the chemical industry and in other sectors. In previous years, EcoVadis awarded our specialty chemicals company a gold rating on six occasions.

Evonik is actively working to implement the requirements of the German legislation on due diligence in the supply chain (📄 p.31). Based on the well-established supplier validation, supplier evaluation, and risk identification processes, our supply chains are undergoing a far-reaching review to analyze, avoid and, where necessary, eliminate specific risks relating to human rights. More detailed processes and responsibilities will be established in 2022.

Resilience of our supply chains during the coronavirus pandemic

As an overarching goal, our procurement strategy includes ensuring the availability of raw materials on the best possible terms. Restrictions on the availability of starting products and intermediates in the short- or intermediate-term represent potential

Supplier validation, assessments, and audits, including corrective action 📍 414-1, 414-2

T06

	2019	2020	2021
No. of new suppliers evaluated ^a	2,049	2,055	1,754
No. of new and established suppliers evaluated ^b	2,192	2,272	1,946
No. of suppliers audited where a need for corrective action was identified	26	34	34
thereof suppliers where significant actual or potentially negative impacts were identified ^c	(in %) -	-	-
thereof suppliers with whom corrective action plans (CAP) were agreed	(in %) 100	100	100
thereof suppliers where the supply relationship was terminated as a result of the evaluation	(in %) -	-	-

^{a,b} Based on environmental and social criteria.

^c Zero percent environmental impacts, zero percent social impacts.

¹ The results of the audits and assessments by EcoVadis and TfS were outside the scope of the auditor's limited assurance engagement.

risks. In addition to preparations to substitute suppliers in emergencies, we continuously monitor the business situation of selected suppliers of key raw materials in order to anticipate bottlenecks and mitigate risks. This practice stood us in good stead in respect of the pandemic-induced supply risks. Consequently, we were able to maintain supply during the coronavirus crisis, despite the production stoppages and logistics restrictions, and therefore mostly avoided the negative effects. Constant evaluation of the risks within our supply chains is necessary due to the increasing volatility. Therefore, we steadily develop our risk management.

Reducing CO₂ emissions along the upstream value chain

We want to substantially reduce our absolute scope 3 emissions from the upstream value chain—principally from our “raw material backpack” (p. 90). To address this, we therefore set up a team of experts in 2019. Based on intensive talks with suppliers of key raw materials, we have drawn up a project charter comprising a wide range of projects and ideas to reduce scope 3 emissions. Initial measures have already been implemented. These include, for example, sourcing raw materials produced using biomass or waste streams and reducing production emissions by our suppliers through process improvements and the use of renewable energy. The results of our talks with suppliers are documented and the CO₂ avoided by specific projects with suppliers is calculated.


In the reporting period, we extended these talks to further suppliers of key strategic raw materials to improve the quality of the data and identify further options for sourcing raw materials with a lower carbon footprint. This potential is also continuously validated. To this end, we have extended the validation period and now also assess the availability of low-carbon raw materials using mid- and long-term scenarios to evaluate the impact on our sustainability targets.

Our targets


Below is an overview of the targets set for our governance and compliance area of action.

Target attainment in 2021

Governance

 30 percent of women at both the first and the second management level below the executive board by year-end 2024 (status at year-end 2021: 26.9 percent at the first management level and 29.2 percent at the second management level)

Responsibility within the supply chain

 100 percent of all raw materials suppliers where annual procurement volume is >€100 thousand to be covered by TfS assessments by year-end 2025 (status at year-end 2021: 69 percent)

Targets for 2022 and beyond

Governance




30 percent women at both the first and the second management level below the executive board by year-end 2024

Compliance

Perform an initial risk analysis using a new IT tool, starting with compliance with the German legislation on due diligence in the supply chain


Responsibility within the supply chain

100 percent of all raw materials suppliers where annual procurement volume is >€100 thousand to be covered by TfS assessments by year-end 2025

-  Target not achieved
-  Target partially achieved or target horizon extends beyond 2021
-  Target achieved



Zheng Zhu and Martin Lei
Employees at our site in Shanghai (China)


You can find
related videos in our
[online report](#)



Value chain and products ✓

In addition to our own production and business processes, we always have an eye on the supply chain for our raw materials, goods, and services and on product benefits and applications for customers. Our innovative products help our customers meet their sustainability goals.

SDGS OF PARTICULAR RELEVANCE FOR EVONIK



KEY TOPICS

- Research & development/innovation
- Efficient use of scarce resources/circular economy
- Sustainable products/solutions for our customers
- Product stewardship

> €1 billion

Additional sales¹
in our six innovation
growth fields by 2025

280

New patent applications
submitted

> €350 million

Additional sales
from the global circular plastics
program from 2030

> 99%

Percentage of risk estimates for
substances placed on the market in
quantities of >1 metric ton p.a.

¹ With products introduced in or after 2015.





VALUE CHAIN AND PRODUCTS

50 Research & development/innovation

📄 201-4

- 50 Strategy and management
- 51 Global research network
- 51 Our activities in 2021

52 Efficient use of scarce resources/circular economy

📄 301-1, 102-44

- 52 Strategy and management
- 52 Renewable raw materials
- 53 Palm oil-based precursors
- 54 Circular economy
- 56 Our activities in 2021

57 Sustainable products and solutions for our customers

📄 102-2, 102-6, 102-44

- 57 Strategy and management
- 57 Close collaboration with customers

59 Special SUSTAINABILITY FOCUS AREAS

68 Product stewardship

📄 102-2, 416-1, 416-2, 417-1

- 68 Strategy and management
- 69 Our activities in 2021
- 70 Sustainability in product stewardship
 - 70 Microplastics
 - 70 Animal protection
 - 71 Endocrine disruptors
 - 71 PBT/PMT
 - 71 FPAS
 - 71 Nanotechnology
 - 72 Biotechnology

72 Our targets

📄 102-14, 102-15

Research & development/innovation

A combination of innovative capability and proximity to customers is a key success factor for Evonik and drives sustainable growth. Through innovations, we are addressing the major challenges of our times in the transition to a climate-neutral and circular society.

Strategy and management

We want to use our innovative capability to make a significant contribution to the sustainable transformation of the economy and society. To achieve that, we do not allocate resources for research and development solely on the basis of the strategic role of our businesses; their sustainability profile is equally important. Since 2020, we have therefore extended the PSA method used in the sustainability analysis of our business (see “Strategy and growth” [p. 18](#)) to our innovation projects to make sure that they use a uniform method. The findings should be available in 2022. In the reporting period, the **Sustainability Focus Areas** (see special section [p. 59](#)) were integrated into our Idea to People-Planet-Profit (I2P[®]) process for new innovation projects. I2P[®] is a multi-step process used to manage our R&D projects—from the idea through systematic development to profitable commercialization.

Our R&D activities are still aligned to six innovation growth fields:

- **Sustainable Nutrition:** establishing new products and services for sustainable nutrition of livestock and people

VALUE CHAIN AND PRODUCTS

Research & development/innovation

- **Healthcare Solutions:** developing new materials for implants, as components of cell culture media, and for custom-tailored, innovative drug formulations
- **Advanced Food Ingredients:** creating a portfolio of health-enhancing substances and nutritional supplements as a contribution to healthy nutrition
- **Membranes:** extending SEPURAN[®] technology for efficient gas separation to further applications
- **Cosmetic Solutions:** developing further products based on natural sources for cosmetics and sensorially optimized formulations for skincare products
- **Additive Manufacturing:** developing products and technologies for additive manufacturing

We aim to generate additional sales¹ of over €1 billion with these innovation growth fields by 2025. We are making good progress.

Our research and development (R&D) activities are bundled in the Research, Development & Innovation (RD&I) function. This comprises the R&D teams of the divisions, innovation management, our strategic research institute Creavis, and Evonik Venture Capital. As part of Evonik Operations GmbH, RD&I is closely integrated into our business activities. The strategic framework for our R&D is set by the RD&I council, which manages the targeted allocation of human and financial R&D resources. It is chaired by the member of Evonik’s executive board responsible for chemicals and innovation. Other members are the chief innovation officer, the head of Corporate Strategy, and the heads of the divisions.

To spearhead innovations for sustainable solutions, Creavis is working on research into transformative innovations beyond the


¹ With products introduced in or after 2015.

product and market focus of the operational units. Its three incubation clusters—Defossilisation, Life Sciences, and Solutions Beyond Chemistry—aim to make a key contribution to the achievement of Evonik’s business and sustainability targets. For instance, the Defossilisation cluster is developing high-growth solutions that enable industries to become less dependent on fossil raw materials or smooth the path to a climate-neutral hydrogen economy. Novel concepts for sustainable food production that use resources efficiently and for the prevention and treatment of illnesses are the focus of the Life Sciences cluster. Based on domain knowledge and data-based solutions, the Solutions Beyond Chemistry cluster is encouraging secure and traceable circular value chains.

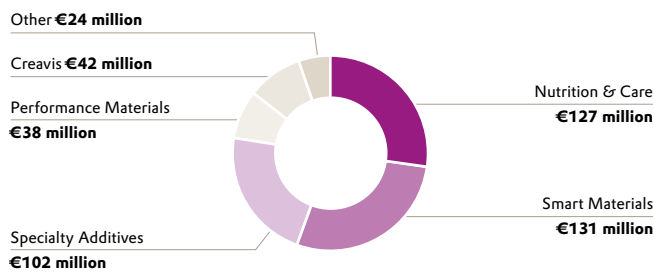
In addition, Evonik is accessing new business potential through its corporate venture capital activities. We invest specifically in specialized technology funds and start-ups of strategic relevance to Evonik. In this way, we gain insights into innovative developments at a very early stage. Projects with our partners enable us to work on new products and technologies, which increases the pace of innovation. Around 40 investments have been made since 2012.¹ One success story is JeNaCell, a biotech start-up in which Evonik has had a stake since 2015. The nature-identical material developed by JeNaCell is used in medical technology and dermatology for the treatment of wounds and burns and in hydroactive skin care. In August 2021, we took over all shares in JeNaCell and integrated it into our health care business.

Global research network

RD&I has more than 30 locations worldwide and around 2,600 R&D employees. R&D expenses totaled €464 million in

2021. The ratio of R&D expenses to sales was 3.1 percent (2020: 3.5 percent). At present, our operational chemicals divisions account for around 86 percent of our R&D expenses, while Creavis accounts for about 9 percent. In the reporting period, some of our projects received funding from the European Union or the Federal Republic of Germany. In all, we received funding of around €5.1 million. Evonik has an extensive patent strategy to protect new products and processes. The value and quality of our patent portfolio have increased steadily in recent years. 280 new patent applications were submitted in 2021, and we had around 24,000 patents and pending patents.  201-4

Breakdown of R&D expenses



Our activities in 2021

In the reporting period, we once again drove forward many research projects geared to the efficient use of resources. Green hydrogen is one of the great hopes for the energy transition. Firstly, it is a carbon-free source of energy for industry and mobility, and secondly, it is an important raw material for industry and steel production. Green hydrogen is produced from water by

VALUE CHAIN AND PRODUCTS

Research & development/innovation

electrolysis using electricity from renewable resources. At present, it is more expensive than conventional hydrogen, which is generally produced from methane gas, with carbon dioxide as a by-product. The key factors for economical production of green hydrogen, in addition to affordable eco-power, are the investment and operating costs of the electrolyzer. The key element of the next generation of electrolyzers is an ion exchange membrane. This has a decisive influence on efficiency and reliability. Evonik has developed DURAIION®, a new type of anion exchange membrane that should help bring a breakthrough in the cost-effective production of hydrogen using electrolysis.²

MACBETH³ (Membranes And Catalysts Beyond Economic and Technological Hurdles), a research project funded by the EU and coordinated by Evonik, achieved a milestone in July 2021. The EU Commission evaluated the project for the first time and the outcome was positive. MACBETH aims to develop technologies that make industrial-scale reactions far more energy-efficient. The EU is providing funding of €16.6 million for this. 24 partners from ten countries will be working on this in four sub-projects until 2024. One sub-project, which is based at Evonik in the Marl Chemical Park, is hydroformylation. The aim is to develop catalytic membrane reactors for industrial use.

Since 2021, Evonik has been a member of the Center for Bioplastics and Biocomposites (CB2). Its members are four North American universities and more than 30 industrial companies. CB2 concentrates on developing high-quality bio-based plastics and composites. The aim is to enable industrial-scale use of renewable materials in the future. Evonik sees CB2 as an excellent platform to involve partners from the entire value chain, make real-time progress in this rapidly developing field, and drive forward in-house innovations in the field of bio-based materials.

¹ <https://venturing.evonik.com/en/our-portfolio>

² See "Environment" p. 77.

³ EU funding reference 869896.

We extended our corporate venture capital activities in China by investing in the GRC SinoGreen Fund V and the Richland VC Fund II. The GRC SinoGreen Fund V concentrates on the circular economy, synthetic biology, 3D printing, battery materials, and carbon materials. Richland Capital invests in progressive materials and digital technologies.

To strengthen the Healthcare Solutions innovation growth field, Evonik Venture Capital has invested in the Singapore-based start-up Revivo Biosystems. This investment supports the development and commercialization of a synthetic 4D model of human skin tissue for the testing of chemical, cosmetic, and pharmaceutical compounds. Revivo Biosystems' technology offers an alternative to animal testing and is also faster, more reliable, and more cost-efficient.

Our lipid nanoparticles are the basis for ensuring that mRNA vaccines are effective by protecting them as they are transported to human cells. Transformative innovations are so complex that they increasingly require close collaboration between a variety of disciplines. That is illustrated by our partnership with BioNTech. To evaluate future applications for mRNA, Evonik has initiated an industry roundtable together with BioNTech and the University of British Columbia.

Furthermore, in June 2021 we embarked on a three-year cooperation with scientists from the renowned Stanford University in California (USA). Together, we want to extend the applications of mRNA therapeutics to improve the treatment of diseases such as cancer and Aids.

Efficient use of scarce resources/ circular economy

Our production and business processes and the products we market are where we have the biggest direct influence on sustainability requirements. In most cases, we develop and optimize our own production processes by combining efficient processes, careful use of resources, and innovative capability.

Strategy and management

At many of our sites, we have backwardly integrated production complexes where key precursors are produced in adjacent production facilities. That results in high reliability of supply for our customers. Our world-scale facilities are also a high entry barrier for potential competitors.

We generate 83 percent of our sales outside Germany. That shows the global focus of our business. We have production facilities in 27 countries and are therefore close to our markets and our customers. Our largest production sites—Marl, Wesseling, and Rheinfelden (Germany), Antwerp (Belgium), Mobile (Alabama, USA), Shanghai (China) and Singapore—have integrated technology platforms, most of which are used by several business lines. This results in valuable economies of scale and integrated use of our material flows as a contribution to high resource efficiency. Continuous process optimization and the efficient use of resources have always been very important for our production activities.

VALUE CHAIN AND PRODUCTS

Efficient use of scarce resources/circular economy

Production inputs and output

Evonik uses a wide range of raw materials in the production of its products. Like technical goods and services, they are sourced from a variety of suppliers. Production inputs increased from 7.7 million metric tons in 2020 to 8.3 million metric tons in 2021. Production output was 9.5 million metric tons. Evonik replaces CO₂eq-intensive raw materials with alternatives wherever this is possible and competitive. In product packaging, Evonik gives high priority to the re-use of materials. [301-1, 301-3](#)

Renewable raw materials

In its production processes, Evonik uses dextrose and saccharose, mainly as substrates in the fermentative production of amino acids. Natural fats and oils and their derivatives are used to produce precursors for the cosmetics, detergents, and cleaning agents industries and in technical processing aids. Renewable raw materials are classed as critical raw materials for procurement purposes, especially with a view to reliability of supply. Consequently, they are subject to a special examination.

We endeavor to raise the proportion of renewable raw materials wherever this makes sense from a technical, economic, ecological, and social perspective. In 2021, the proportion of renewable raw materials increased to 9.7 percent of production inputs (2020: 8.5 percent).





Evonik has drawn up recommendations on the sustainable use of palm oil-based products.

Palm oil-based precursors

Evonik mainly uses palm oil, palm kernel oil, and their derivatives to produce ingredients for the cosmetics, detergents, and cleaning agents industry (Care Solutions business line) and to produce polymers used to improve the viscosity index and reduce the pour point of lubricants (Oil Additives business line). Our annual requirements are around 103,000 metric tons.¹ We are critical of the establishment of new palm oil plantations and the associated land use.

Strategy and management

For many years, Evonik has supported the use of sustainable palm oil in the supply chain. The focus here is on internationally recognized certification standards. Evonik has been a member of

the Roundtable on Sustainable Palm Oil (RSPO) since 2010. In our annual RSPO progress report, we outline our activities and targets to foster sustainable palm oil production. In keeping with our commitment to ensuring responsible use of palm oil, we actively network with NGOs, customers, and other stakeholders in the value chain.

In 2020, Evonik drew up recommendations for sustainable procurement and use of palm oil, palm kernel oil, and their derivatives to raise the awareness of our employees of how to take a responsible approach to these substances. We have published these recommendations on our website.² In the future, we intend to extend them to other renewable resources such as coconut oil, rapeseed oil, maize (source of carbon), and their derivatives. Specific strategies, targets, and measures are defined by the operational management teams in the Care Solutions and Oil Additives business lines.

More than 70 percent of the palm-based raw materials used by the Care Solutions business line are already RSPO-certified.³ In the reporting period, we started to extend this to all available raw materials. Care Solutions' strategic priorities are certification of its sites and extending its portfolio of certified products. The Care Solutions sites that use palm oil are certified as conforming to the RSPO's mass balance (MB) and segregated (SG) standards. This shows that the organizational structure at these sites meets the RSPO requirements, which is a basic precondition for the continuous transition to certified raw materials. Care Solutions continuously screens market supply and uses its influence on direct pre-suppliers so that it can switch products globally to the MB standard. The majority of the palm-based products marketed by this business line already conform to the RSPO MB or SG standard. This is indicated in the tradename of all RSPO-certified products marketed by Care Solutions.

VALUE CHAIN AND PRODUCTS

Efficient use of scarce resources/circular economy

The strategic priorities of the Oil Additives business line are certification of its sites and extending its portfolio of certified products. At present, all five production sites that use palm oil derivatives have been certified as conforming to the RSPO's MB or SG standard. In 2021, Oil Additives drew up a stepwise plan for RSPO certification of the raw materials it uses. This includes a phased transition to certified starting products. More than 10 percent of palm-based raw materials are RSPO-certified.³ The intention is to increase this to around 50 percent in 2022 and achieve a full transition in 2023.

From **2023**
Evonik will only use
certified palm (kernel) oil
and derivatives.

In addition, Evonik aims to ensure that by 2023 only RSPO-certified palm oil and palm kernel oil are used in its products. One challenge in this changeover is that there are substantial regional fluctuations in the supply of certified derivatives—often accompanied by price rises, higher offtake guarantees, or restricted availability. That entails uncertainty in meeting demand. The preconditions for achieving our target are therefore the availability of the necessary raw materials and commercial feasibility on the global market.

¹ Fiscal 2020.

² [https://corporate.evonik.com/Downloads/Corporate/Verantwortung/E_Handlungsempfehlung%20Palmoil_FINAL_frei%20\(1\).pdf](https://corporate.evonik.com/Downloads/Corporate/Verantwortung/E_Handlungsempfehlung%20Palmoil_FINAL_frei%20(1).pdf)

³ Fiscal 2021.

Working with the WWF and Beiersdorf to promote sustainable palm oil production

Progressive deforestation to establish new palm oil plantations is a major challenge. In view of this, Care Solutions has developed additional supply chain criteria with its customers. We expect further progress here to come from a joint project with the WWF and Beiersdorf. This partnership aims to strengthen sustainable development in the Malaysian region of Tabin in Sabah on the island of Borneo. This program takes a three-pronged approach—protect, produce, restore. The aim is to encourage sustainable production of palm oil and other agricultural produce and stop deforestation. By 2025, a total of 20,000 hectares farmed by small- and mid-sized growers should be certified as conforming to the RSPO. In addition, a political framework is to be created for sustainable agriculture and forestry.

The three partners have also pledged to protect the wildlife habitat in Tabin and to set up at least one ecological corridor allowing wild animals to migrate to other habitats. Moreover, the aim is to stabilize the population of threatened and endangered species, such as rare Borneo elephants and orangutans.

Responsible supply chains

Evonik advocates the responsible use of woodland and forests and the protection of the soil. Our Care Solutions and Oil Additives business lines are founding members of Action for Sustainable Derivatives (ASD). The goal of the ASD initiative is to ensure the traceability of palm oil derivatives to mills and plantations. Its risk analysis methods and joint action plans aim to help counter progressive deforestation. Within the ASD, Care Solutions and

Oil Additives report annually on the degree of transparency in the supply chain and at the oil mills involved. Care Solutions extended its ASD activities to coconut oil in the reporting period.

Circular economy

A circular economy is a step forward from the established linear economic model where products based, for example, on crude oil, are manufactured in many production steps and incinerated at the end of their useful life. The focus of a circular economy is on decoupling economic growth and the use of resources by recycling valuable raw materials at the end of their useful life and returning them to the loop.



The chemical industry uses its innovative capability to shape new, circular material flows. As well as modifying our own production and value chains, in this way we are helping other sectors develop a circular economy.

Strategy and management

A circular economy has been one of our material corporate issues since 2017, and we have steadily developed our activities in this field. Our experts share their knowledge in an internal expert circle. In 2021, our sustainability analysis once again looked at our entire chemicals business from the perspective of a circular economy (see “Strategy and growth” [p. 18](#)).

VALUE CHAIN AND PRODUCTS

Efficient use of scarce resources/circular economy

Global circular plastics program

In November 2020, a global circular plastics program was launched, bringing together all of the Evonik Group’s activities on this topic for the first time. The Specialty Additives division is responsible for this program. The global circular plastics program comprises short- to mid-term projects with a clear focus on commercialization. These address, for example,

- the use of sustainable raw materials,
- the development of solutions for mechanical and chemical recycling technologies, and
- the development of innovative business models that take account of the requirements of the circular economy.

We regard intensive examination of our own value chains and the corresponding partnerships as an important key to supporting the transformation to circular forms of economy. Overall, we expect the global circular plastics program to generate additional sales of more than €350 million p.a. by 2030. [🌐 306-2](#)

> €350 million
additional sales from
the global circular plastics
program by 2030

Evonik provides an extensive range of additives for **mechanical recycling**. In this way, we help our partners optimize the efficiency and quality of their processes.

- For example, with our surfactants, printing inks can be washed off faster, reducing the ink residues in recycled plastics. Moreover, less water remains on the plastic, saving time and energy in the drying process. In addition, our additives minimize odor and improve processing of products and their mechanical properties. As a result, recycle yields are increased.
- Our products and technologies enable the recycling of used tires at the end of the life cycle so they can be re-used in high-quality applications, thus avoiding incineration. Our partners reduce their ecological footprint by using tire granulates instead of fossil-based bitumen in road surfaces. As well as reducing traffic noise (low-noise asphalt) and cutting fuel consumption by cars (resource efficiency), this greatly increases the service life of the road surface, reduces maintenance, and makes the surface recyclable.

Chemical recycling focuses on plastic waste streams that cannot be recycled eco-efficiently using mechanical processes. That applies, on the one hand, to mixed, heavily contaminated and colored thermoplastics and, on the other, to duroplasts that cannot be melted. Evonik makes additives, adsorbents, catalysts, and process know-how available to its partners. We therefore facilitate chemical recycling of plastics residues that would otherwise be incinerated or disposed of in landfills. Evonik has developed



Global circular plastics program: Turning plastic waste into new high-quality plastics.

chemical recycling processes to regain the basic components of polyurethanes for use in the production of new polyurethanes. With our expertise in catalysts and process technology, we are making a key contribution to this. A similar approach is used for PET packaging and colored PET plastics, which are not suitable for mechanical recycling at the end of their life cycle. Here too, our catalysts and process technologies enable the recyclability of these materials.

In the case of heavily blended or contaminated plastics streams, our aim is to use pyrolysis to avoid incineration. In this technology,

VALUE CHAIN AND PRODUCTS

Efficient use of scarce resources/circular economy

plastics streams are converted into a pyrolysis oil at a high temperature without air. This can be used as a substitute for fossil naphtha in crackers, providing the basic ingredients for the synthesis of polymers. This technology is currently still at the pilot stage. Further development is required for it to meet ecological and economic requirements on an industrial scale. Our SiYPro™ additives help our partners make their production processes safer and more robust.

By acquiring the Porocel Group of the USA in 2020, Evonik strengthened its portfolio by adding adsorbents and catalyst technologies to separate contaminants such as halogens from PVC and flame retardants, sulfur (used tires), and metals from the resulting pyrolysis oils. Porocel also offers a technology for highly efficient rejuvenation of desulfurization catalysts, which are in increasing demand in the attractive market for low-sulfur fuel.

Evonik technologies are also used in the design for recycling approach. One example is a binder for heat-sealing applications (DEGALAN®), which allows the production of yogurt pots from a single material, so the pot and lid can be recycled together. Previously, yogurt pots had to be disposed of by incineration because of the aluminum lid.

Evonik does not simply support the circular economy in plastics through its established products. In its defossilization cluster, our strategic research unit Creavis is working on solutions for the recycling of plastics and used tires. Recycling processes for other valuable materials such as batteries are also being developed.

 306-2

Evonik constantly strives to increase the proportion of recyclable packaging. For categories of packaging where recycling rates are low, progress is held back by regulatory or technical barriers. In an effort to increase recycling rates, we address the issues through constant discussion with packaging material specialists and customers. Our recycling rates per category are as follows:


Recycling rates by packaging categories  301-3 **T07**

Category (in %)	Recycling rate per category ^a	Percentage of procurement volume ^b
Bulk containers (>180 l), e.g., IBCs ^c , metal drums	28.7	48
Small containers (<180 l), e.g., canisters	0.7	4
Pallets, e.g., wood and plastic	13.4	19
Film, e.g., refuse bags, flat film	1.7	5
Paper and cardboard, e.g., corrugated cardboard, paper bags	1.6	12
FIBCs ^d , e.g., plastic	-	8

^a Based on weighted average of the units.
^b Based on invoice value, rounded.
^c IBC = Intermediate bulk container.
^d FIBC = Flexible intermediate bulk container.

Evonik is increasingly focusing on the circularity of packaging. By increasing the use of re-usable systems to secure loads, we aim to reduce the use of shrink-wrap film and therefore the amount of plastic waste for our customers. We endeavor to question the

use of all raw materials and have already taken action to reduce the thickness of steel drums and the grammage of paper sacks.

The sustainability analysis of our business (see “Strategy and growth,”  p.18) also takes circularity into consideration, for example, with regard to our raw materials and the application of our products. To determine the environmental impact of circular products, Evonik mainly uses life cycle assessments in accordance with ISO 14040 and ISO 14044. In this context, we also examine which methods could be used for quantitative indicators in the future. Evonik uses recognized methods such as the material circularity indicator developed by the Ellen MacArthur Foundation and the WBCSD’s¹ circular transition indicators.




Evonik works closely with partners at all stages in the circular plastics value chain.

Our activities in 2021

Evonik joined the European Circular Plastics Alliance in the reporting period. This EU initiative aims to return 10 million metric tons of plastic recycle to the market in Europe every year from 2025. We are also a member of the Circular Economy for Flexible Packaging, which develops solutions for all stages in the flexible packaging value chain. Furthermore, we support the Circular Valley project of WupperTalBeWegung e.V., which networks start-ups in the field of circular solutions with industry.

Evonik is involved in the Carbon2Chem research project,^{2,3} which aims to convert exhaust gases from steelworks into chemical products such as ammonia for nitrogen fertilizers or methanol for use as a production input. We are a partner in the EU project ReProSolar, which is working on the complete recycling of photovoltaic modules.⁴ In this context, all components of used modules are completely recycled. This allows pure silicon, silver, and glass to be returned to the manufacturing industry.

We also participate in a circular economy center of excellence in the Rhineland region. This is a joint initiative of the NRW regional association within the German chemical industry association (VCI) and kunststoffland NRW e.V. This initiative is planning a project to establish a networking platform to build a pilot facility for the practical development of recycling technologies until they are ready for commercialization.  306-2

¹ WBCSD = World Business Council for Sustainable Development.
² Sub-project L IV: C2+ alcohols, C2+ olefins, synthetic fuel components, funding reference 03EW0008.
³ Funded by the Federal Ministry of Education and Research.
⁴ EU funding reference 20028.

Sustainable products and solutions for our customers

Evonik aspires to play an active role in the transformation to a sustainable economy and way of life as a driving force and solution supplier. Our contributions to this are bundled in four Sustainability Focus Areas (▢ p.59).

Strategy and management

Leading market positions account for around 80 percent of Evonik's sales¹. Our product portfolio ranges from high-quality intermediates to complex formulations and system solutions. We have a balanced market spectrum. None of the end-markets we supply accounts for more than 20 percent of our sales. They include pharmaceuticals, consumer goods, care products, food and animal feed, paints and coatings, the automotive industry, mechanical engineering, and construction. Regional specifics are taken into account through our numerous technology and competence centers. 📍 102-44

Our special strength is working in close partnership with our customers, mainly industrial companies that use our intermediates. The products and solutions supplied by our operating divisions and business lines make a key contribution to enhancing the product benefits that secure our customers' competitive success. Our divisions are also responsible for customer relationship management for their business.

Close collaboration with customers

Innovative products and technologies from our three growth divisions—Specialty Additives, Nutrition & Care, and Smart Materials—make an important contribution to improving the sustainability of customers in their specific end-markets. A high proportion of sales in these divisions come from products whose sustainability benefits are above or even well above the market reference level (Next Generation Solutions, see "Strategy and growth" ▢ p.18).²

Evonik strives to be integrated into customers' value chains where possible. That enables us to align our research & development, production, marketing, and distribution workflows closely to our customers' requirements. Contact to our stakeholders helps to improve our understanding of market developments and customer requirements. At group level, a marketing & sales excellence team offers the divisions training and management tools to strengthen employees' customer focus. This close collaboration in R&D enables us to address market and customer requirements early on, take higher technical and commercial risks, and raise the market penetration of sustainable solutions.

In 2020, Evonik and Unilever established an alliance to market a new dishwashing liquid based on a biosurfactant developed by Evonik. This has now led to an investment project at the Slovenská Ľupča site in Slovakia, where Evonik will be erecting the world's first industrial-scale facility to produce rhamnolipid biosurfactants. This triple-digit million euro investment will establish us as a pioneer in the commercial production of high-quality, sustainable biosurfactants. Rhamnolipids are a class of fully biodegradable biosurfactants that are produced by



View of the fermentation facility in Slovenská Ľupča (Slovakia), where biosurfactants are produced.

fermentation using corn sugar as the main raw material, without the use of petrochemical feedstocks or tropical oils. Unilever aims to produce its cleaning agents and detergents without fossil fuels by 2030—for example, with Evonik's help.

We want to offer our customers even greater support to help them meet the sustainability requirements of their markets in the future. To this end, we are driving forward the digitalization of our customer interfaces by building up digital platforms. Examples are CAREtain® for customers in the cosmetics industry, EXPLORE PU for polyurethanes customers, and COATINO™, a digital lab assistant, which Evonik has developed specifically for the coatings industry.

¹ We define these as ranking 1st, 2nd, or 3rd in the relevant markets. Source: internal evaluations based on 2020.

² WBCSD = World Business Council for Sustainable Development.

Evonik is cooperating directly with other solution providers to drive forward the transformation to greater sustainability in end-markets and supply chains. Together with Linde, we therefore offer a fully integrated solution comprising various technologies to separate hydrogen from the natural gas pipeline network.

CO₂eq avoided by using Evonik products

Evonik markets a variety of products whose use makes a positive contribution to reducing greenhouse gas emissions compared with conventional alternatives. The avoidance of greenhouse gases shown here results from applications for the following four products/system solutions compared with established alternatives: "green" tire technology, amino acids for animal nutrition, foam stabilizers for insulating materials, and additives for hydraulic fluids. The amounts stated are avoided over the application life cycle of the products, based on volume sales of the products manufactured by Evonik. The method used to compile the data is the Avoided Emissions Guidance published jointly by the WBCSD¹ and ICCA², which was updated in 2017.

In 2021, the use of these four Evonik products resulted in the avoidance of 38.5 million metric tons CO₂eq. The increase from 32 million metric tons of CO₂eq in 2020 is mainly due to increased sales volumes. The sales generated by these four resource-efficient Evonik products amounted to €1.8 billion in 2021.

Four Sustainability Focus Areas

In the reporting period, we bundled Evonik's contribution to a sustainable transformation in four **Sustainability Focus Areas (SFAs)**: fight climate change, drive circularity, safeguard ecosystems, and ensure health & wellbeing (see the special section on our Sustainability Focus Areas [p.59](#)). For each SFA, we show how Evonik reduces its own ecological footprint and the handprint³ resulting from the use of our products and solutions in the relevant markets.⁴ Each SFA addresses specific sustainability requirements and describes our contribution to the Sustainable Development Goals (SDGs). In this context, we examine both positive and negative impacts of Evonik's business activities. These impacts are examined for each product-application-region combination (PARC) as part of our sustainability analysis (see "Strategy and growth" [p.18](#)).

Fight climate change

This SFA bundles all contributions to reducing our scope 1, 2, and 3 emissions, increasing energy efficiency, and the use of renewable energies. We also consider the greenhouse gas emissions avoided along the value chain by using our products.

38.5 million metric tons
avoided CO₂ emissions
due to the use of four
Evonik products

VALUE CHAIN AND PRODUCTS

Sustainable products and solutions for our customers

Drive circularity

Here, we bundle all contributions from the use of renewable and circular raw materials, the reduction in production waste, and the production of products that enable circular solutions.

Safeguard ecosystems

This SFA brings together all contributions in connection with Evonik products and solutions that support deforestation-free supply chains and biodiversity. Moreover, it covers environmentally friendly products that do not involve the use of chlorine or solvents and avoid polluting nature with persistent substances.

Ensure health & wellbeing

This SFA bundles all contributions made by Evonik products that avoid exposing people to volatile organic compounds⁵, micro-particles, or dangerous chemicals during the application phase and those that allow access to safe food and water. Further, this SFA describes the contribution made by our solutions for efficient pharmaceutical active ingredients and medical therapies.

In our innovation activities, the four SFAs support selective optimization of business-related processes and the ongoing development of existing products. The three clusters at our strategic research unit Creavis—Defossilation, Life Sciences, and Solutions Beyond Chemistry—are also focused on high-growth solutions aligned with our SFAs.

In the coming years, our businesses will be quantifying and improving their handprint in the four SFAs, reducing their footprint, and generally creating additional value with sustainable solutions.

¹ WBCSD = World Business Council for Sustainable Development.

² ICCA = International Council of Chemical Associations.

³ We define the handprint as the positive effects of our products along the value chain compared with other established products and their market applications, especially in customer applications.

⁴ This analysis is outside the scope of the auditor's limited assurance engagement.

⁵ VOC = volatile organic compounds.

FIGHT CLIMATE CHANGE



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DRIVE CIRCULARITY



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SAFEGUARD ECOSYSTEMS



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ENSURE HEALTH & WELLBEING



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SUSTAINABILITY FOCUS AREAS

CHALLENGES AND EVONIK'S ANSWERS¹

¹ This special section was outside the scope of the auditor's limited assurance engagement.

This section provides information on the four Sustainability Focus Areas (SFAs), where we bundle our contributions to a sustainable transformation. For each SFA, we show how Evonik reduces its own ecological footprint as well as the handprint resulting from the use of our products and solutions in the relevant markets.



CHALLENGE: FIGHT CLIMATE CHANGE

Voices of the younger generation



Sajid Chowdhury
Lab Technician RD&I
High Performance Polymers
Smart Materials
Location: Marl (Germany)

“ Personally, I take climate change very seriously, as I want future generations to have a good life on this beautiful planet. I don't want to repeat the ignorance of my ancestors. The challenge of reducing the rate of climate change is immense.

Making just a few changes is not enough. We need to

develop a lot of sustainable ways to live. That includes changing processes, new technologies, and innovative inventions. But also changes in our day-to-day life.

I use public transportation to travel instead of a car as much as possible, especially to travel to work. However, few of my friends and colleagues, not a lot of them, do this, even though they don't really live very far from work.

It's high time we all started to come up with new ideas to save what we can. **The idea of a new, renewable and greener way of running motors with hydrogen is something that really amazes me,** and I really look forward to it being implemented on the streets, not only in private cars but also in public transportation. That would be a huge leap towards helping the cause.

In 20-30 years, I'd like to be living in a better world where we have successfully prevented climate change and achieved a new balance between ecology and the economy. **It would be great if we had all integrated climate change successfully into our daily lives.** ”



Yuko Kobayashi
Applied Technology
Silica
Smart Materials Silica
Location: Yokkaichi (Japan)

“ I find the speed of climate change very worrying. Its influence is generally greater than we can envision, and there are no measures that are immediately effective. According to the experts, reducing greenhouse gas emissions is the primary countermeasure. However, that cannot be achieved overnight:

it takes time. Besides, sufficient renewable energy is not yet available for our modern lifestyle.


Somehow, we have to survive for a certain period and learn how to deal with climate disasters and natural catastrophes.

Above all, we need to reduce resource consumption quickly. Our affluent society is based on mass-production and mass-consumption. That means there are lots of things we can reduce or do without. If we desperately cling to our current lifestyle, the effects of our environmental measures will be limited. We have to change how we think and ask ourselves what is really necessary for our lives.

Climate change will bring many uncertainties in the decades ahead. I think the impact on people will increase. However, different countries are responding differently. **In my view, it would be desirable for everyone to recognize how serious the situation is and to tackle the problem together.** Multilateral cooperation is very important for that. ”



CLIMATE CHANGE

According to our stakeholders, climate change is one of the three most important sustainability issues for Evonik  p.25.



WHAT IS EVONIK DOING TO FIGHT CLIMATE CHANGE?

Examples of how we are contributing to the transformation

Handprint



- Evonik products that help customers avoid CO₂ emissions
- Transformative innovations that enable progress towards climate-neutrality

Footprint



- Defossilization of the supply chain
- Reduction in scope 1, 2, and 3 emissions
- Use of renewable energies
- Reduction in absolute and specific energy consumption



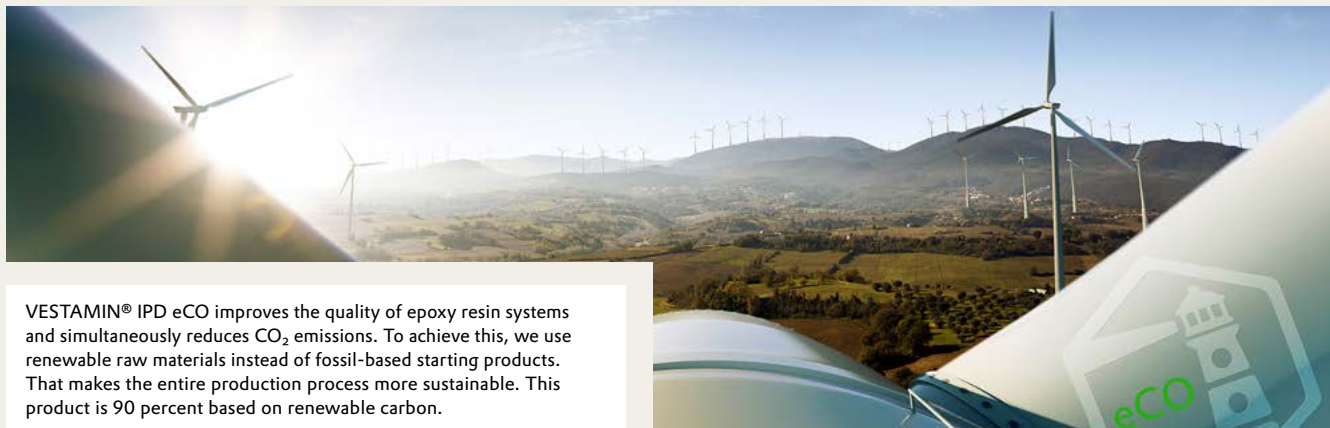
Lisa-Marie Bischer
 Consultant
 Life Cycle Management
 Technology & Infrastructure
 Location: Hanau (Germany)

“ Evonik has ambitious climate targets for scope 1, 2, and 3 emissions. In our team, we perform life cycle, value chain, and site analyses and technology assessments. We help Evonik achieve its targets because what has been measured can be managed. ”



Jürgen Leitermann
 Product Manager Digital Energy
 Management Systems
 Energy & Utilities
 Technology & Infrastructure
 Location: Hanau (Germany)

“ We are reducing manual work by digitalizing energy management. By 2026, more than 60 locations will be connected to this system linked, and over 90 percent of Evonik’s energy consumption will be registered digitally. Real-time monitoring of our CO₂ emissions and other key indicators is also possible. ”



VESTAMIN® IPD eCO improves the quality of epoxy resin systems and simultaneously reduces CO₂ emissions. To achieve this, we use renewable raw materials instead of fossil-based starting products. That makes the entire production process more sustainable. This product is 90 percent based on renewable carbon.

Our contribution

- Products and solutions for wind farms
- Membranes for the efficient treatment of biogas and the production of green hydrogen
- Additives for energy-efficient manufacturing processes
- Innovative high-tech insulating materials



We define our handprint as the positive effects generated by our products along the supply chain compared with other established products and applications, especially in customers’ applications.

CHALLENGE: DRIVE CIRCULARITY

Voices of the younger generation



Matthew Wolbert
Technical Product Specialist
Care Solutions
Nutrition & Care
Location: Richmond (Virginia, USA)

“ Reaching the goal of a “circular economy” is something we all must strive for, especially within companies and politics. We, as consumers, have begun vocalizing our support for sustainability in the hope that this becomes a central market tenet. To fully effectuate this, I believe we need change at the regulatory level to protect the environment.

To meet this challenge, consumers should try to use products smarter. **As a personal example, I have opted to seek out used furniture as opposed to buying new.** Manufacturers also need to respond to consumers with a greater array of sustainable products and by publishing their environmental KPIs. With these offerings, consumers are allowed greater transparency to make the most informed decision possible with respect to which companies and products they support.

For future generations, product development should prioritize social and environmental benefits. Product life cycles should be designed for longevity, waste reduction, and environmental preservation. The longer we can keep individual items in circulation, the fewer input resources must be spent, and less total waste is created. ”



Soumaia El-Gamel
Jr. Technical Service Manager
Animal Nutrition
Nutrition & Care
Location: Cairo (Egypt)

“ A circular economy is basically saving the environment in many ways and therefore has a positive influence on social, economic and health aspects. **I live in Egypt, which is a developing country, so there is little chance of finding eco-friendly products such as food, skincare or clothes.** However, the educated

younger generation tries to think out of the box. For example, they form local communities to upcycle clothes, organize carpooling, and reuse packaging in creative ways.

I think producers should focus more on creating sustainable products that are affordable. Then consumers could make more responsible decisions.

I would like to see greater awareness of the consequences of how we act—not just the negative effects but also the positive ones. For example, by reducing poverty and unemployment and improving the quality of life. However, economic, social, and technological progress needs to be in harmony with nature. Therefore, I believe it is important to focus more on a circular economy with the participation of all countries and all people. ”



CIRCULAR ECONOMY

According to our stakeholders, efficient use of scarce resources/ circular economy is one of the three most important sustainability issues for Evonik [p.25](#).



WHAT IS EVONIK DOING TO DRIVE CIRCULARITY?

Examples of how we are contributing to the transformation

Handprint



- Enabling circular solutions in a wide range of end-markets
- Driving forward circular plastics throughout the value chain
- Reducing food waste

Footprint



- Use of renewable and circular raw materials



Dr. Phillip James
Technology Director
Interface & Performance
Specialty Additives
Location: UK

“ In a diverse team, we are bringing together technologies that will enable new recycling methods to succeed. My role is to develop process additives that will make chemical recycling processes run smoother and improve the compatibility of the recycled building blocks with the existing value chain. ”



Kathrin Lehmann
Technical Director Polymer Specialties
Interface & Performance
Specialty Additives
Location: Essen (Germany)

“ Contamination makes it difficult to recycle plastic bottles and results in downcycling. With additives developed by Evonik, plastic bottles can be recycled repeatedly without any loss of quality and used to produce new bottles. That increases the recycling rate. ”



VESTENAMER® from Evonik: a sustainable solution for circularity in the rubber industry. This process additive enables efficient recycling of rubber to obtain robust materials.

Our contribution

- Global circular plastics program: additives and technologies for mechanical and chemical recycling
- Development of innovative business models aligned with the requirements of the circular economy
- Use of renewable and circular materials



CHALLENGE: SAFEGUARD ECOSYSTEMS

Voices of the younger generation



Shao Wen Ng
Lab Technician RD&I
High Performance Polymers
Smart Materials
Location: Asia Research Hub (Singapore)

“ As a society, we have been striving towards fast progress and economic growth, but that has put too much pressure on our ecosystems. **I feel that the imbalance between growth and conservation is one of today’s main challenges,** and it’s exacerbated by the exploitation of natural resources for short-term profit.

We should change our mindset to actively safeguard our ecosystems and recalibrate our goals towards sustainability. As well as personal green choices, we need breakthroughs in research and development.

Ideally, in the future we should only consume food from sustainable sources. Sustainable mobility is also needed: New technologies should offer greener ways to travel and transport goods, thus lowering our carbon footprint. **For example, using augmented reality to connect people, and sending digital 3D models of required products to be printed on site, instead of transporting the actual items.**

Most of all, I hope people can learn as quickly as possible to act responsibly and embrace sustainable living, so our future generations can also enjoy the beauty of our planet. ”



Livia Minami
Marketing Analyst
Care Solutions
Nutrition & Care
Location: São Paulo (Brazil)

“ Biodiversity is the key to the survival of Earth’s ecosystems. **We are all connected, and taking care of the Earth should be part of our purpose in life. In the past, humans have frequently interfered with nature.** The destruction of natural habitats, intensive agriculture and forestry, and overfishing have resulted in a threat to species and ecosystems around the world. We need to be aware that each of us, including all plants and animals, play a role in maintaining the natural balance and self-regulation of the ecosystems.

Therefore, I make a personal contribution to the challenge of safeguarding our ecosystems. **As a consumer of beauty products, I buy cruelty-free products and biodegradable formulations.** Moreover, on social media, I follow NGOs and companies that work to safeguard ecosystems. I also share topics to encourage lively dialogue on this. Last but not least, in my daily life, my motto is: reduce, reuse, recycle.

I believe that small steps can make the difference, not only in Brazil but worldwide. **How amazing it would be in twenty years to find a world where biodiversity is restored.** ”



BIODIVERSITY

According to our stakeholders, biodiversity is a material sustainability issue for Evonik
p.25.



WHAT IS EVONIK DOING TO SAFEGUARD ECOSYSTEMS?

Examples of how we are contributing to the transformation

Handprint



- Reducing emissions into water and air; responsible water and waste management
- Careful use of freshwater in industry and agriculture
- Enabling resource- and nutrient-efficient livestock farming and aquaculture

Footprint



- Sustainable procurement of oleochemicals and other bio-based raw materials
- Lower water intake at production sites in areas subject to water stress



Faazi Adam
Director Sustainability
Animal Nutrition
Nutrition & Care
Location: Hanau (Germany)

“ The world’s population will grow to around 10 billion people by 2050. Therefore, efficient, resource-saving food production is important. We are contributing to that through scientifically based solutions like precision livestock farming, which can greatly reduce the use of arable land. ”



Peter Becker
Senior Manager Sustainability
Care Solutions
Nutrition & Care
Location: Essen (Germany)

“ We are systematically developing our portfolio towards circularity. Products based on renewable raw materials, innovative processes, and complete biodegradability after use are the preconditions for the markets of the future. ”



Special microbes strengthen plants during germination and protect them from stress. Evonik develops solutions that enhance the storage stability and effectiveness of such microbes.

Our contribution

- Global water management system
- Products for the sustainable nutrition of livestock
- Products and solutions for aquaculture
- Formulations for anti-fouling marine coatings
- Use of RSPO-certified palm oil, palm kernel oil, and their derivatives



CHALLENGE: ENSURE HEALTH & WELLBEING

Voices of the younger generation



Zenani Shozi
Lab Technician
Animal Nutrition
Nutrition & Care
Location: Midrand (South Africa)

“ Health and wellbeing can be defined in many ways, but I personally see it as my ability to be mentally, physically, and socially sane. **For me, health and wellbeing are the basis for a sustainable life.**”

The global pandemic has shown us all how important health is and the far-reaching consequences of a disaster like this. Many people have died or are suffering long-term effects. Others lost their jobs; livelihoods were at stake.

A healthy environment and minimum social standards are huge factors in people's health and wellbeing. There should be widespread state intervention to ensure access to clean water and proper sanitation programs. That is vital for our society to move forward sustainably.

Every one of us also needs to take ownership. **Access to education and health care are the keys to a better world.** ”



Julia Hofmann
Assistant
Silica
Smart Materials
Location: Hanau (Germany)


“ **For me, health is the most important thing in life.** Here in Germany, we're fortunate that we have a very good health care system. Preventive health care is widespread, and that makes it easy for people to take advantage of it—as I do. However, I have to say that sometimes I find it hard to motivate myself to exercise and eat healthily.

I think a good work-life balance is becoming more and more important. The basis should be greater personal responsibility. For me, having the flexibility to decide when I work is especially important. **The boundaries between work and private life will inevitably become more blurred.** Working when and where it suits us will probably become the norm.

Mindfulness and an awareness of our bodies and every step we take are very important. **That includes a responsible attitude to the environment,** for example, cycling or walking if we're going only a short distance. And for travel within Germany, there are now good rail connections as an alternative to driving. ”



HEALTH PROTECTION/PROMOTION

According to our stakeholders, health protection/promotion are material sustainability issues for Evonik  p.25.



WHAT IS EVONIK DOING TO ENSURE HEALTH & WELLBEING?

Examples of how we are contributing to the transformation

Handprint



- Reducing volatile organic compounds and emissions of microplastics
- Enabling effective health promotion
- Hygiene and water treatment

Footprint



- Reduction in hazardous emissions
- Reduction in hazardous waste



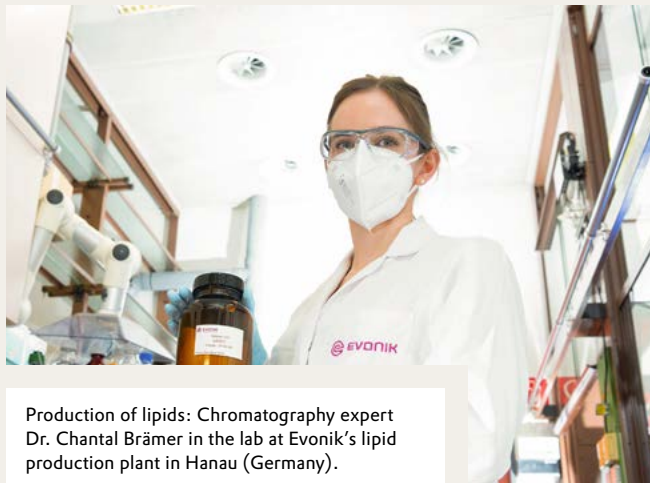
Ranjan Fletcher
Manager Sustainability Development
Health Care
Nutrition & Care
Location: Darmstadt (Germany)

“ We are analyzing our entire product portfolio to establish the sustainability impact of our products. However, we cannot do that on our own—working in collaboration with our suppliers and customers is the key to a more sustainable future. ”



Dr. Achim Fischer
Senior Project Manager RD&I
Health Care
Nutrition & Care
Location: Darmstadt (Germany)

“ Our healthcare products help improve people’s health and quality of life. For example, our lipid nanoparticles protect the mRNA vaccine and transport it safely to the cells. That optimizes the effect of the vaccine. ”



Production of lipids: Chromatography expert Dr. Chantal Brämer in the lab at Evonik’s lipid production plant in Hanau (Germany).

Our contribution

- Chemicals management system (CMS) for (hazardous) substances placed on the market (CMS^{PLUS})
- Products and solutions that reduce the VOC¹ content of paints
- More effective active ingredients for pharmaceuticals with fewer side effects and better acceptance by patients
- Lipid nanoparticles for innovative vaccines
- Products and solutions that help to enhance the quality of food and reduce surplus feed
- Waste management; reduction in other emissions into the air



¹ VOC = volatile organic compounds.

Product stewardship

Product stewardship is a vital precondition for our business. It is our “license to operate.” It includes timely identification, evaluation, and minimization of the potential health and environmental risks in our portfolio.

Strategy and management

We examine the entire value chain of each of our products from the procurement of the raw materials to the delivery to our industrial customers. This is a product stewardship approach and should not be confused with a complete life cycle assessment. We make all legally required information on safe handling of our products available to our customers, together with further information, for example, on disposal of the products. That includes, for example, safety data sheets and technical information sheets.

As well as complying with all statutory requirements such as the European chemicals regulation REACH¹ and the Globally Harmonized System of Classification and Labelling of Chemicals (GHS), product stewardship at Evonik includes voluntary commitments that go beyond these regulations. We have been committed for many years to the international Responsible Care® initiative and the Responsible Care Global Charter of the International Council of Chemical Associations (ICCA), which includes the global product strategy (GPS). The key elements of our product stewardship have also been defined in a product

policy. To supplement this, a group-wide standard defines how these commitments are to be implemented within Evonik, together with control mechanisms to monitor their observance.

 416-1, 417-1

The European Green Deal published by the EU Commission sets out a timetable for Europe to become climate-neutral by 2050. One element in the zero-pollution target is the chemicals strategy for sustainability published by the EU in October 2020, which will have far-reaching consequences for the chemical industry and its value chain. It includes, among other things, amending and tightening the REACH regulation, the classification and labeling (CLP²) regulation, and many other regulations, for example, on food contact materials, detergents and cleaning agents, and cosmetics. In addition, the plans include extensive restrictions on use, additional data requirements, and new hazard classes. The chemicals regulations are expected to have a far stronger focus on dangers.

Evonik supports the aims of the Green Deal but sees a considerable need to optimize the chemicals strategy. In view of this, we are actively involved in consultations and the economic analysis by the European Chemical Industry Association (Cefic) to address the disproportionate burden on our industry with the EU Commission.

Given the rising regulatory requirements, Evonik initiated a “risk radar” project in 2021 to identify potential influences on products and substances in our portfolio. In this project, Product Steward-

VALUE CHAIN AND PRODUCTS

Product stewardship

ship, Sustainability, and RD&I work together closely on reformulation and innovations to find possible alternatives.

Responsible handling of chemicals

In the light of global trade in chemicals and chemical products, it is important to encourage broad communication on their safe handling and use. We therefore have an extensive worldwide information system. This includes information portals, safety data sheets—not just for dangerous products—in more than 30 languages, technical data sheets, and extensive information on our website. There are also 24/7 emergency hotlines, including an interpreting service, and email addresses.

Our specialist departments provide advice for our customers at all stages in the product life cycle, from the selection of the raw materials through dealing with possible toxicological, ecotoxicological, and physical chemistry risks and the resulting exposure-based risks. Our advice also includes regulatory requirements relating to the planned application, right up to transportation and disposal. Where necessary, we give customers training in how to handle our products.

Our chemicals management systems

We evaluate all substances placed on the market (> 1 metric ton p.a.). Particularly dangerous substances are included from lower amounts. That allows a soundly based assessment of the risks. Where necessary, restrictions are placed on certain usage patterns or, in extreme cases, a complete ban is issued on use in certain products.

¹ REACH = Registration, Evaluation, Authorisation and Restriction of Chemicals.

² CLP = Classification, Labelling and Packaging of substances and mixtures; CLP regulation.

Evonik evaluates its substances using its own Chemicals Management System (CMS). This system, which was developed in-house, supports us in global product evaluation, analogously to a life cycle assessment. The content of the CMS has been harmonized with the GPS requirements of the International Council of Chemical Associations (ICCA) and the REACH requirements. By the end of 2023, we want to include and evaluate all products that have been added through acquisitions since 2017.

As an extension of the CMS, our Chemicals Management System^{PLUS} is used for products containing substances of very high concern. These are subject to a more detailed examination to bring about a reduction in the negative impact on people and the environment. Around 1 percent of our products currently meet the criteria for evaluation on the basis of CMS^{PLUS}. Since 2017, acquisitions have added further substances that are within the scope of the CMS^{PLUS}. We aim to include and evaluate these products by the end of 2023.

In addition to the global risk assessment of substances >1 metric ton p.a. (CMS), for many years Evonik has evaluated products that contain >0.1 percent substances of very high concern with a view to reducing or replacing such substances wherever possible.

Evonik is also involved in various national and international associations and initiatives engaged in the ongoing development of risk evaluation criteria such as ECETOC¹ and Cefic-LRI².

Our activities in 2021

Under REACH, all substances produced, imported, or placed on the market in the EU in quantities of more than 1 metric ton p.a. have to be registered. Evonik supports the aim of protecting health and the environment in the handling of chemicals. To implement the complex REACH requirements, we maintain a close dialogue with our suppliers and customers, as well as with industry associations and authorities.



An employee in the laboratory in Halle-Künsebeck (Germany). Evonik has research and development employees worldwide working on specialty chemicals.

Even following the successful completion of REACH registration of all current Evonik substances in the EU in 2018, Evonik will continue to register new substances. However, the focus is increasingly shifting to the evaluation of dossiers and substances,

and to restriction and authorization. We compare the substance lists published by the authorities with our own portfolio to identify as early as possible whether any of our substances are affected. If such substances are identified, we examine suitable measures. We also collaborate closely with our customers to work out the next steps. In addition, we examine the raw materials we procure. If any substances are categorized as being of very high concern or are on the REACH list of potential candidates, we discuss the steps to be taken with our suppliers or look for alternatives. We have set up email addresses for all REACH-related inquiries from customers and suppliers so that they receive timely and full replies.

Another focus of our REACH activities is updating dossiers that have already been registered. This is based closely on the Cefic action plan, which Evonik has signed. The review of all of Evonik's dossiers with a view to enhancing quality will take place stepwise up to year-end 2026. Progress is outlined annually in this report and in a report to Cefic. We have already reviewed more than 200 dossiers since the action plan started in mid-2019. Evonik is not presently affected by authorizations.

Some countries and regions have either introduced or are currently introducing chemicals regulations with requirements similar to those of REACH. Examples are South Korea, Turkey, Taiwan, and the Eurasian Economic Union. Other countries, such as the USA, have also raised their standards significantly. Evonik is actively monitoring the development of regulations worldwide in order to be able to implement them in the relevant regions. In South Korea, consultations within the Chemical Substance

¹ ECETOC = European Centre for Ecotoxicology and Toxicology of Chemicals.

² LRI = Long-Range Research Initiative.

Information Communicative Organization (CICO) and consortia have been underway since 2020. Evonik submitted the necessary registrations by the deadline in 2021. In Turkey, the necessary pre-registrations were completed in 2020 and planning for volume-based registration has been taking place since 2021. Notifications to the Eurasian Economic Union (EAEU) were submitted by the deadline. The new chemicals regulations in the EAEU are expected to come into force in November 2022. Preparations at Evonik have started.

In 2021, we did not record any violations of our internal compliance regulations in connection with information on products and services, product labeling, or the health and safety of customers.

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The Globally Harmonized System (GHS)

The Globally Harmonized System of Classification and Labelling of Chemicals (GHS) established by the United Nations classifies dangerous goods and substances for labeling on packaging and in safety data sheets. The GHS is still not applied uniformly around the world. We have therefore set up an in-house database to gather information on progress, changes, and national requirements for internal communication. Evonik implements the GHS/CLP requirements¹ in all countries where they apply.

Sustainability in product stewardship

Our product stewardship covers a broad spectrum of topics, which we are continuously addressing. The most urgent topics, based on our stakeholders' views and our own estimates, are outlined below.

Microplastics

For some time now, there has been a public debate about pollution of the environment and especially aquatic systems by plastics. Every year, between 4.8 and 12.7 million metric tons of plastic waste, including microplastics, get into the world's oceans.² Microplastics may be added to products intentionally but can also be generated by the abrasion of plastics, for example, abrasion of tires and fragmentation of larger plastic items.

On behalf of the European Commission, in 2019, the European Chemicals Agency (ECHA) published a draft restriction on intentionally added microplastics. Evonik took part in public consultations, both directly and through associations (Cefic and VCI). Our goal is a practicable solution for the restrictions, with clear definitions and areas of applicability that reflect the fundamental principles of REACH. The revised draft is expected in the course of 2022.

Evonik became a signatory to Operation Clean Sweep in 2015. The aim of this global campaign is to reduce pellet loss in production, processing, and transportation. Evonik also offers alternatives that can replace microplastic particles in both rinse-off and leave-on cosmetic products.

Animal protection

We need toxicological and ecotoxicological data to assess the safety of our products. In keeping with our responsibility to protect animals, we start by examining all alternatives to animal testing in detail. They include, for example, quantitative structure-activity relationship analyses, analogies, literature, non-animal testing. We have set up a working group to bundle the expertise in the Evonik Group.

A first in-vitro feasibility study on the toxicological endpoint for respiratory tract sensitization was performed with an external partner some years ago. Based on the initial findings, a subsequent assay should be able to distinguish between respiratory tract irritation and respiratory tract sensitization. We want to continue this project and are currently examining financing options, including third-party funding. Evonik also supports basic research at universities, for example, by supervising doctoral candidates and employing PhD students in feasibility studies and development projects on new technologies and biological test systems.

As an active member of the European Partnership for Alternative Approaches to Animal Testing (EPAA), we drive forward alternative methods on a cross-sector basis. Evonik plays a part national and international level to minimize the possible impact of the new demands made by the EU chemicals strategy with regard to animal testing. Therefore, Evonik is involved in the activities on the Next Generation Risk Assessment and the Usability of New Approach Methodologies (NAMs) for Risk Assessments. We are also involved in discussions by national and international industry associations on data sharing.

Furthermore, in 2021 we took a stake in the start-up Revivo BioSystems, which is driving forward the development and commercialization of a synthetic 4D tissue model of human skin for testing chemical, cosmetic, and pharmaceutical compounds. The technology developed by this Singapore-based start-up offers an alternative to animal testing.

¹ CLP = Classification, labelling and packaging of substances and mixtures (Regulation EC no. 1272/2008).

² Jenna R. Jambeck et al. Plastic waste inputs from land into the ocean. Science 13 Feb 2015: Vol. 345, Issue 6223, pp. 768-771; DOI: <https://doi.org/10.1126/science.1260352>.

Nevertheless, from a regulatory and scientific perspective, in many cases, tests on animals are often the only way to meet the necessary data requirements. If there is no alternative to animal testing, Evonik ensures that the tests are performed only by test institutes that are validated in accordance with the applicable national and international legal provisions and that these tests meet animal protection standards. To this end, Evonik has set up an internal taskforce to support the auditing of test institutes. As a responsible company, we have also drawn up our own animal protection guidelines.¹

Endocrine disruptors

Endocrine disruptors are natural or chemical substances that disrupt or alter the regulation of the hormone system and can cause lasting damage. The EU's chemical strategy for sustainability provides for more extensive data requirements on endocrine disruptors, along with restrictions and, where applicable, bans on consumer applications. In addition, further hazard classes are to be introduced. Evonik is monitoring this issue and taking part in consultations and EU-wide impact assessments within both German and European organizations.

PBT/PMT

PBTs are substances with persistent, bioaccumulative, or toxic properties. PMTs are substances with persistent, mobile, and toxic properties. From a scientific viewpoint, a clearer definition of the criteria is necessary. Evonik is working actively in national and European associations to define and obtain scientifically based data. The EU's chemicals strategy aims to define substances that meet these criteria as substances of very high concern (SVHC) and regulate them as such through the CLP regulation. Here too, the aim is to introduce additional hazard classes.

PFAS

Evonik markets small amounts of polymers classified as a subgroup of per- and polyfluoroalkyl substances (PFAS) for the manufacture of medical products. A proposal has been submitted to the EU Commission on restricting these compounds under the REACH regulation. This is expected to be published in 2022. The proposals include an exemption for medical products. In addition, Evonik uses a small amount of PFAS compounds as precursors and intermediates in the production of pharmaceutical active ingredients. At present, we assume that this application would also be exempt from a potential restriction on PFAS. In addition, we produce small quantities of perfluorinated compounds that are mainly used in coatings to protect surfaces, for example, from graffiti. Evonik is making extensive information available to the relevant authorities for a decision. At the same time, we are looking for possible alternatives for use in surface coatings.

Nanotechnology

Nanotechnology is a generic term covering a wide range of developments and innovations as well as established technologies. Their common feature is the investigation, production, and use of minute structures measuring around 1 to 100 nanometers. Some have been known for many decades, while others are new developments. Nanomaterials used in products and efficient system solutions for our customers make a substantial contribution to environmental protection and climate protection. Evonik strives to handle the associated technologies responsibly and conscientiously. For example, we see considerable opportunities in new materials for high-end batteries and energy-saving applications in the construction sector.

VALUE CHAIN AND PRODUCTS

Product stewardship



A scientific employee working on strains of bacteria in Slovenská Ľupča (Slovakia).

Based on our long-standing experience, we implement measures to protect employees, customers, and consumers in the handling of nanomaterials. These measures are based on the latest assessment of the risks and dangers resulting from scientific investigations and epidemiological and toxicological studies. In addition, Evonik supports the establishment of new methods of investigation aligned to the specific effects of nanomaterials, which refine the evaluation of risks. We are also continuously investigating the potential hazards and safe handling of these materials.

We share the results of our research with our stakeholders. Representatives of Evonik take part in the German government's NanoDialog, where experts from industry, science, authorities, and industry associations discuss the opportunities and risks of nanotechnology.

¹ <https://corporate.evonik.com/en/responsibility/value-chain-products/animal-welfare>

Biotechnology

Industrial biotechnology uses natural micro-organisms such as bacteria, yeasts, and algae to develop sustainable industrial products on the basis of renewable raw materials and the associated processes. It is an important driver of growth and innovation and will therefore make a significant contribution in reducing consumption of natural resources, promoting the sustainability of the global food system, and enabling the transition to a bio-based circular economy.

Evonik uses natural micro-organisms, strains developed using conventional processes, and genetically modified micro-organisms. Safe, modern, high-performance biotechnology methods are used to optimize our microbial production organisms and processes. All microbial strains undergo a thorough scientific safety assessment in our laboratories as part of the necessary registration procedures. We comply with the latest scientific standards and regulations to aim to ensure that our products are safe for people, animals, and the environment.


We use industrial biotechnology to produce biomolecules and biotransformers. Examples are highly soluble, ultra-pure collagen for pharmaceutical and medical applications and biosurfactants for shower gels, hair shampoos, and cleaning agents. Other applications are omega-3 fatty acids made from natural micro-algae for animal nutrition, amino acids for low-protein diet formulations as a global feed standard, and probiotics to allow antibiotic-free livestock farming. Within Evonik, biotechnology will be used to make an even greater contribution to safe and sustainable products in the future. In the reporting period, we therefore pooled our expertise in a central competence center, which supports all Evonik business entities in this field.

Our targets


Below is an overview of the targets set for our value chain and products area of action.

Target attainment in 2021

Research & development/innovation

 Generate more than €1 billion in additional sales¹ in our six innovation growth fields by 2025

Product stewardship

 Add substances/products from acquisitions² to CMS/CMS^{PLUS} and process them by the end of 2023

Targets for 2022 and beyond

Research & development/innovation

Generate more than €1 billion in additional sales¹ in our six innovation growth fields by 2025




Product stewardship

Add substances/products from acquisitions² to CMS/CMS^{PLUS} and process them by the end of 2023

Efficient use of scarce resources/circular economy

Generate more than €350 million in additional sales with solutions for the circular plastics economy from 2030

Solutions for around 400,000 metric tons of recyclable plastics by 2025


-  Target not achieved
-  Target partially achieved or target horizon extends beyond 2021
-  Target achieved

¹ With products introduced in or after 2015.

² Since 2017.



Dr. Emily Schweißinger and Dr. Thomas Rosen
Employees at our site in Essen (Germany)


You can find related videos in our [online report](#)

The environment ✓

Protecting our environment and the climate are major global challenges of our time. Maintaining the natural basis of life for future generations is part of our corporate responsibility. That also includes continuously reducing emissions in keeping with our sustainability strategy.

SDGS OF PARTICULAR RELEVANCE FOR EVONIK



KEY TOPICS

- Climate change
- Water management
- Waste management
- Biodiversity

-43%

Reduction in absolute scope 1/scope 2 greenhouse gas emissions (reference base: 2008)

€95 per metric ton¹

Carbon pricing to manage our investments



¹ For the European Emissions Trading System (EU ETS). For most of the rest of the world, we are retaining our forecast of €50 per metric ton CO₂ by 2030 at the latest in all regions of relevance for Evonik. In view of regional differences in the starting situation, we have developed scenarios for the development of carbon pricing—differentiated by countries and regions—showing the rise to the assumed final price.





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The environment

As a specialty chemicals company, we are aware that our production impacts the environment. We take many steps to minimize this. According to our materiality analysis, climate change is one of the three most important sustainability issues for Evonik. Other significant environmental issues are water management, waste management, and biodiversity.

Strategy and management

Our actions are based on an extensive, integrated management system for the environment, safety, health, and quality. This applies to the whole of the Evonik Group and is based on legal requirements, internal policies, and standard operating procedures. In addition to meeting compliance requirements, we therefore support a targeted improvement in our environmental performance. Furthermore, we require our manufacturing sites to be validated as conforming to ISO 14001, the internationally recognized environmental management standard. In the energy sector, we use ISO 50001 and are working to implement it digitally. At present, 45 sites are certified in conformance with ISO 50001, so around 80 percent of Evonik's energy consumption is certified.

The ESHQ (Environment, Safety, Health & Quality) function uses a central audit system to regularly monitor the implementation of our strategy and management system. Based on the findings and analyses of internal and external audits and site inspections, talks are held on possible improvements and ways of implementing them. The executive board is informed annually of the outcome of the audits. The processes used to collect and process environmental data are subject to internal and external audits. Our high

THE ENVIRONMENT

The environment

quality standards are backed up by regular training. Data input is decentralized, and the data can be evaluated on the basis of management units, legal structures, or regions.

In 2021, we rolled out the ESTER platform (Evonik Standard Tool ESHQ and Reporting) to further sites. An ESTER support organization was established in the regions. This offers users help with technical questions and should further improve the quality of the processes. From 2022, we want to use ESTER as a central platform for group-wide reporting of accidents and plant safety incidents.

ESHQ brings together all group-wide strategic management and coordination tasks in the environment area of action. The global ESHQ strategy is defined by the HR Executive Committee, which comprises the chief human resources officer, the HR partners of the divisions, and the heads of the ESHQ, Sustainability, and HR Business Management functions. Decisions on the implementation of this strategy are taken by the ESHQ Panel. Its members are representatives of the divisions, regions, the technical committee, and employee representatives. The panel is chaired by the head of the ESHQ function, who reports directly to the chief human resources officer. The role of the Global ESHQ Committee is to regularly discuss ESHQ issues and prepare decisions to be taken by the ESHQ Panel. It comprises the heads of ESHQ in the divisions and regions and is chaired by the ESHQ function. Subject experts are consulted on specific issues.

303-1, 303-2, 306-1, 306-2

Climate reporting at a high level

In keeping with its participation in CDP Climate Change and CDP Water Security, in 2021, Evonik again published detailed strategies, data, and development paths on climate change. In both categories, our ratings were unchanged: A– for climate reporting and B for water reporting.

Task Force on Climate-related Financial Disclosures

We are following the objectives of the Task Force on Climate-related Financial Disclosures (TCFD) very closely. Its focus is on climate reporting by companies and their climate-related opportunities and risks. In the chapter “Basis of reporting,” we summarize climate-related information in the categories governance, strategy, risk management, and metrics and targets, in line with the TCFD structure (see [p.119](#)).¹ The executive board receives regular updates on climate-related opportunities and risks as part of our group-wide opportunity and risk management. Building on the project undertaken in 2020 to investigate the extent to which we meet the TCFD requirements, we held a more far-reaching discussion of TCFD scenario analyses in our cross-functional task force. Follow-on activities are planned for spring 2022 [p.34](#). [201-2](#)

Environmental targets

Our goal is a 50 percent reduction in absolute scope 1 and 2 emissions by 2025, compared with the level in 2008—the first full year after the establishment of Evonik. This affirms our commitment to the Paris Agreement on Climate Change. We assume an average reduction in climate-relevant emissions of 3 percent a year (status 2021: -43 percent). In the reporting period, we worked intensively on extending our climate and sustainability strategy beyond 2025. In this way, we make sure that timely consideration is given to technological and regulatory changes.

The measures defined to achieve our greenhouse gas targets will bring a substantial reduction in further emissions in 2022: start-up of the two new gas and steam turbine power plants in Marl (Germany), accompanied by the shutdown of coal-fired power plant I at this site, will bring a fundamental change in

Evonik’s emissions profile. This effect will be enhanced by the new thermal afterburning unit in Marl, which will come into service in 2022 as part of the new polyamide 12 complex. Overall, we expect these measures to reduce emissions into the air as follows by 2024:

- Carbon dioxide (CO₂): -1,000,000 metric tons
- Nitrogen oxides (NO_x/NO₂): -1,000 metric tons
- Sulfur dioxide (SO_x/SO₂): -500 metric tons
- Dinitrogen oxide (N₂O): -60 metric tons
- Particulates: -30 metric tons
- Heavy metals (As, Cd, Cr, Cu, Hg, Ni, Pb, Zn): -0.1 metric ton.

As part of our 2021 strategy and planning process, we evaluated options to reduce our greenhouse gas emissions in the short, mid, and long term. When assessing potential measures to reduce emissions, we examine both technological and economic viability criteria and the impact on growth and profitability scenarios. The corresponding considerations will also be included in our strategy dialogue in 2022.

The availability of water as a resource depends enormously on regional and local conditions. Therefore we are pursuing a site-specific approach for water. To take account of projections for climate change and socioeconomic developments, we have identified the sites which will be most affected by water stress in the next 20 years. We examine the findings locally so that site-specific action plans can be drawn up where necessary as a basis for effective preventive measures. For example, we examine alternative cooling systems and transportation options, as well as the possibility of reducing the volume of process water.

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The environment

To supplement the targets for emissions and water, Evonik has set targets for a reduction in its global energy consumption. These specify that both absolute energy consumption and energy consumption relative to production (specific energy consumption) should be reduced by 5 percent by 2025, taking 2020 as the reference base.

In the coming year, we intend to define quantitative targets for water and waste. [303-1, 306-1](#)

Validation and environmental protection costs

Our divisions and regions are subject to annual audits to monitor compliance with DIN EN ISO 14001 validation at our production locations. In 2021, 58 internal and external ESHQ audits were conducted worldwide. The proportion of output covered by this validation varies from year to year because of the addition of newly acquired units. However, it is always between 95 and 100 percent.

Environmental protection investment and operating costs **T08**

in € million	2019	2020	2021
Operating costs for environmental protection	289	294	295
Investment in environmental protection	36	73 ^a	74

^a Data corrected due to the “fast close” process, see “About this report” [p.118](#).

In 2021, investments in environmental protection and operating costs for environmental protection were around the same level as in the previous year. Once again, most of the investments were at Marl Chemical Park in Germany, where we are currently constructing two highly efficient gas and steam turbine power plants to renew our energy infrastructure and a further production complex for the specialty polymer polyamide 12.

¹ Outside the scope of the auditor’s limited assurance engagement.

Climate change

Climate change is one of the top three topics in our materiality analysis. It is therefore a special area of focus. As well as producing products that are sustainable and enhance efficiency for our customers, we are reducing our CO₂ emissions by modernizing and renewing our energy infrastructure and taking steps to increase energy efficiency. Carbon pricing is used as an additional criterion for major investments.

Strategy and management

Our target is to cut scope 1 and 2 greenhouse gas emissions by 50 percent in absolute terms by 2025 (reference base: 2008). Furthermore, by 2025 we want to cut scope 3 emissions from our upstream value chain—basically our “raw material backpack”—by 15 percent compared with 2020 (see “Governance and compliance” p. 47). We also aim to cut both absolute and specific energy consumption by 5 percent. Contributions will come, among other things, from innovative technologies, optimization of production, efficient utilization of non-renewable energy sources, and the use of renewable energy. Another keystone is extending integrated structures between chemical production and energy facilities at our sites in Marl and Rheinfelden (Germany), including integration of third-party production facilities and, increasingly, local authority customers.

In 2021, Evonik joined the climate protection platform Chemistry4Climate—a joint initiative of the VCI¹ and VDI², which has around 70 partners from industry, NGOs, and politics. The aim of this dialogue platform is to come up with practical ideas on how the chemical industry and other sectors can move

towards defossilization by 2045. Chemistry4Climate supports Germany as an industrial base and promotes a fairer world, where value chains are viewed globally and partner regions are given a fairer share as advocated by the UN Sustainable Development Goals (SDGs).

Sustainable energy management

Our new gas and steam turbine power plants in Marl (Germany) will make a significant contribution to increasing our energy efficiency and reducing our greenhouse gas emissions.

- A new gas and steam turbine co-generation plant will end more than 80 years of electricity and steam generation from



The new gas and steam turbine power plant under construction in Marl (Germany).

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hard coal at this location and reduce Evonik’s carbon emissions by up to 1 million metric tons a year. This will reduce direct annual scope 1 greenhouse gas emissions by almost a fifth group-wide. The power plant will be highly flexible, so it can play a part in compensating for fluctuations in the amount of energy from renewable resources fed into the power network, which is a key building block in Germany’s energy transition.

- In addition, we are currently building a further gas and steam turbine power plant in Marl to replace the present gas-fired reserve plant. This second power plant is the last step in the renewal of the energy infrastructure at this site, which is Evonik’s largest site worldwide. Both plants are scheduled to come into operation in 2022. The new plants will have total efficiency of over 90 percent and rated power of up to 270 Megawatts of electricity. That is equivalent to the electricity required by about 750,000 homes. The plants will be able to generate up to 660 metric tons of steam an hour. All power plants at Marl Chemical Park will be operated from a new control center.

Evonik constantly examines the use of renewable energy throughout the company. Our site in Rheinfelden (Germany) sources much of its power supply from environmentally friendly hydroelectric facilities. In addition, we use hydroelectric power generation in Weißenstein (Austria) and solar power in Hanau (Germany), Mexico City, and Querétaro (both Mexico).

Group-wide, renewable resources accounted for around 8 percent of electricity generated in 2021 for use at our own sites. The remainder came from co-generation plants. Compared with the separate generation of electricity and steam, co-generation considerably reduces fuel consumption and thus CO₂ emissions.

¹ VCI = German chemical industry association (Verband der Chemischen Industrie e.V.).

² VDI = Association of German Engineers (Verein Deutscher Ingenieure).

We are increasing the use of renewables throughout the Evonik Group by purchasing green electricity, e.g., for the Functional Solutions business line at the Lülsdorf site and at the global locations of the Active Oxygen, Care Solutions, Health Care, Oil Additives, and Silanes business lines. At our sites in Brazil, hydro-electric power accounts for around 95 percent of electricity procured.

Since the start of 2020, Evonik has sourced a quarter of its total gas supply at its site in Schörfling am Attersee (Austria) from biomethane. This will rise to 100 percent from 2022. Similarly, the High Performance Polymers business line has used biomethane in the production of some of its products in Germany since 2021.

In addition, we are considering extending procurement of external power through power purchase agreements (PPAs). PPAs are special power supply contracts where a company purchases green electricity and the associated certificates directly, for example, from a wind energy provider.

[302-1](#), [302-4](#), [305-1](#), [305-2](#), [305-3](#), [305-4](#), [305-5](#), [305-6](#), [305-7](#)

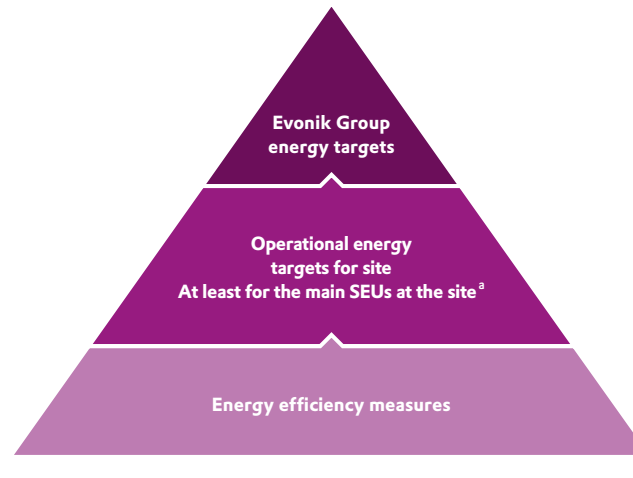
Exhaust heat projects

We use exhaust heat where this makes business and technical sense. The German Energy Agency (dena) has presented its Energy Efficiency Award 2021 to Evonik and German energy utility Energiedienst for their joint exhaust heat project at the Rheinfelden production site. The jury praised the lighthouse nature of the project, which uses exhaust heat from industrial facilities to heat private homes and generate electricity.

At its site in Rheinfelden, Evonik is also working with the municipal utility company Rheinfelder Stadtwerke on a further project

Fulfillment of strategic and operational energy targets

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^a SEU: significant energy user (users with the high energy consumption or high potential energy efficiency).

to utilize exhaust heat. A total of 50 Gigawatt hours (GWh) will be supplied for air-conditioning in commercial, public, and private buildings and the district heating network. In the summer, when demand for heating is far lower, Energiedienst will convert the exhaust heat into electricity. So far, exhaust heat has been released into the air or the river Rhine.

In Marl, district heating is supplied to around 2,000 homes via the steam network at Marl Chemical Park. A range of different types of buildings is integrated into this scheme: single and

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multi-family homes, apartment blocks, schools, the town hall, and two hospitals.

Energy management system and energy efficiency measures

Evonik aims to reduce both absolute energy consumption and specific energy consumption by 5 percent by 2025, taking 2020 as the reference base. Our energy management system supports the achievement of this group-wide target through operational energy targets at our sites. In 2020¹, the successful implementation of energy efficiency measures resulted in energy savings of around 200 GWh, which reduced CO₂ emissions by around 63,000 metric tons.

In the reporting period, Evonik introduced its ISO 50001-validated energy management system at 46 locations. As a result, more than 80 percent of our global energy consumption is subject to continuous improvement via an energy management system. The intention is to integrate further sites in the coming years. In 2021, we successfully certified the first sites in our South America and Asia-Pacific regions.

Through the structured rollout of energy efficiency measures, we reduced absolute and specific energy consumption at all sites that use the energy management system by around 2 percent p.a. between 2018 and 2020. The following measures can be highlighted:

- Improvement in the use of exhaust heat at the site in Marl (Germany) (energy saving: 40 GWh p.a.)
- Renewal of steam generation at our site in Nanping (China) (energy saving: 31 GWh p.a.)

¹ The figures for 2021 will not be available until spring 2022.

- Substitution of natural gas used to generate steam by hydrogen produced as a by-product at the site in Mobile (Alabama, USA) (energy saving: 24 GWh p.a.)
- Use of advanced process control to improve energy efficiency at the site in Antwerp (Belgium) (energy saving: 17 GWh p.a.)

We continued to further optimize our energy management system in the reporting period by switching to digital data capture, resulting in transparency and improved control options. Following successful field tests with the digital system at various sites, the global rollout started. The regional focus in 2021 was North America and Europe. By 2026, we want to switch most of our production sites worldwide to automated digital energy data capture. We expect this to increase energy savings to around 3 percent p.a.

To drive forward our optimization approaches and efficiency measures, the heads of our sites, divisions, and Technical Engineering regularly share information. This has created a cross-site energy efficiency network, which we want to use to identify further energy-saving potential. In addition, our experts foster the exchange of information in internal training sessions and workshops on measures that have been implemented successfully. In this way, they help raise energy awareness at our sites.

302-1, 302-4

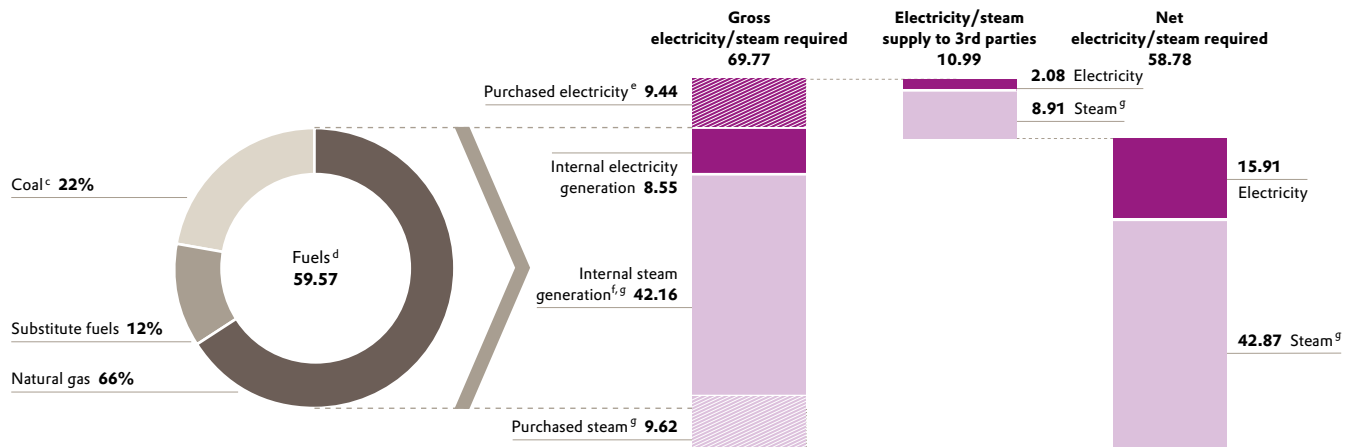
Energy data

In our energy reporting, we distinguish between primary energy inputs, generally fossil fuels used to generate electricity and steam, and secondary energy inputs. These mainly comprise purchased electricity and steam. We also use substitute fuels such as thermal processing of by-products, waste, and sewage sludge.

At present, natural gas and coal are Evonik’s main fuels. When the new gas and steam turbine power plants are taken into service in Marl (Germany) in 2022, Evonik will no longer have any coal-fired electricity generation anywhere in the world. In addition to natural gas-fired generation of electricity and steam for captive use, large amounts of process heat from exothermic reactions, for example, from the production of acrolein are used in integrated heating systems.

Evonik’s energy data 2021 ^{a,b} 302-1, 302-4


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^a In petajoules.
^b Contains the energy required to generate refrigerants. Does not include cooling energy sold to third parties.
^c Evonik will end coal-fired electricity generation worldwide in 2022 when two highly efficient new gas and steam turbine power plants come into service in Marl (Germany).
^d Fossil fuels and substitute fuels used by Evonik for internal energy generation.
^e Excluding trading and excluding supply of purchased electricity to third parties in Germany.
^f Including process heat, e.g., from acrolein production.
^g Conversion factor: 2.8 x 10⁻⁶ PJ per metric ton steam.

Energy inputs  302-1, 302-3, 302-4**T09**


in petajoules	2020 ^a	2021
Total fuels	58.50	59.57
<i>Natural gas</i>	34.76	39.49
<i>Coal</i>	16.06	12.83
<i>Substitute fuels</i>	7.59	7.18
<i>Oil</i>	0.09	0.07
Power, external input ^b	8.30	9.44
Power, external output ^b	2.60	2.08
Steam, external input	8.33	9.62
Steam, external output	8.56	8.91
Gross energy input ^c	75.13	78.63
Net energy input^{d,e}	63.97	67.64
Production in million metric tons	8.93	9.54
Specific net energy input^e in petajoules per million metric tons production	7.16	7.09

^a Data corrected due to the "fast close" process, see "About this report"  p.118.


^b Excluding trading and supply of sourced electricity to third parties in Germany.

^c Fuel inputs plus power and steam sourced externally.

^d Fuel inputs plus power and steam sourced externally less power and steam supplied to third parties.

^e See also our new energy target (reference base: 2020): energy intensity calculated as energy consumption per product unit  p.90.

The volume of coal used by Evonik is determined principally by coal inputs at power plant I (blocks 4 and 5) in Marl (Germany). Due to scheduled and unscheduled shutdowns of blocks 4 and 5, we used less coal and substitute fuels in Marl in the reporting period. To offset this, greater use was made of the gas-fired power plants. We only use heating oil in power plant I for auxiliary firing systems. Further, insignificant amounts of oil are still used for emergency generators at some sites. The increase in power and steam sourced from third parties was due to the significant

increase in capacity utilization at our production plants (+7 percent) and the acquisition of the Porocel Group. Net energy input increased by 6 percent in 2021, mainly due to higher production volumes. Specific net energy input decreased slightly by 1 percent. This was due to numerous individual measures to improve energy efficiency. These were identified and implemented principally through the energy management system ( p.77).

Greenhouse gas emissions


The standard used to report our greenhouse gas emissions is the Greenhouse Gas (GHG) Protocol Standard. We distinguish between direct scope 1 emissions from energy generation and production and indirect scope 2 emissions from the purchase of electricity and steam. External power inputs are reported using the location-based and market-based methods. In accordance with the Greenhouse Gas Protocol, in the location-based

Greenhouse gas emissions  305-1, 305-2, 305-3, 305-4, 305-5, 305-6, 305-7**T10**

in thousand metric tons CO ₂ equivalents ^a	2008	2019	2020	2021
Scope 1				
Carbon dioxide (CO ₂)	8,938	4,859	4,813 ^c	4,777
thereof biogenic CO ₂ emissions	138	166	138	144
Methane (CH ₄)	17	13	12	12
Dinitrogen oxide (N ₂ O)	74	38	28 ^c	11
Hydrofluorocarbons (HFCs)	–	13	7	25
Total ^f	9,029	4,923	4,860	4,826
Scope 2				
Power, external input, location-based ^b	–	2,261	914	1,014
Power, external input, market-based ^b	2,800	2,855	1,049	895
Power, external output ^b	1,616	2,146	365	272
Steam, external input	515	528	595 ^c	734
Steam, external output	1,210	674	708 ^c	715
Greenhouse gas emissions, gross (market-based)^{d,f}	–	–	6,504	6,455
Greenhouse gas emissions, net (market-based)^{e,f}	9,519	5,486	5,431	5,468
Total reduction in scope 1/scope 2 emissions compared with the reference year (2008) in %	0	–42	–43	–43

^a Global warming potential factors for a 100-year period for 2008–2017 based on the Intergovernmental Panel on Climate Change (IPCC) 1995, 2018–2019 based on IPCC 2007, and 2020–2021 based on IPCC 2013.

^b Excluding electricity trading from 2020; reported in scope 3, category 3 in 2020 and subsequent years.

^c Data corrected due to the "fast close" process, see "About this report"  p.118.

^d Gross GHG emissions = scope 1 + power and steam sourced externally.

^e Net GHG emissions = gross GHG emissions – power and steam sourced externally.

^f Differences between the data and totals are due to rounding differences.

method, carbon dioxide emissions from purchased power are calculated using country-specific average emission factors, while in the market-based method, the individual emission factors of the power supplier are used.

In line with various reporting approaches, since 2020 we have reported scope 2 emissions without electricity trading. These emissions are now reported in scope 3, category 3. In addition, we report gross greenhouse gas (GHG) emissions as well as net GHG emissions. Our net GHG emissions are the GHG emissions directly linked to our production activities. In the management of our business, we therefore use specific GHG emissions as well as the absolute data.

Absolute net GHG emissions increased slightly in the reporting period, by 1 percent to 5.5 million metric tons CO₂eq. Combined with a 7 percent rise in production volume—mainly due to the strong recovery of the global economy in the reporting period and the acquisition of the Porocel Group—this led to a considerable drop of 6 percent in specific net GHG emissions. Within scope 1, that was mainly due to increased gas-fired energy generation in Marl (Germany) and specific energy-saving measures. Another reason—within scope 2—is the increased external sourcing of power from renewables, for example, by the Active Oxygen business line. Consequently, although external sourcing of power increased by 14 percent in 2021, the related GHG emissions decreased by 15 percent.

In 2021, Evonik had 23 facilities that fall within the scope of the EU Emissions Trading System (EU ETS), compared with 24 in 2020. The facility in Taavetti (Finland) no longer falls within the scope of the EU ETS due to the restructuring there. In total, Evonik emitted 3.3 million metric tons CO₂ in the reporting period (2020: 3.2 million metric tons CO₂).

In addition, we are directly affected by carbon pricing systems in a number of countries. In Germany, we are subject to the national emissions trading system as well as the EU ETS. In the provinces of Fujian and Shanghai in China, our Nanping and Shanghai sites are subject to the regional emissions trading systems. National emissions trading systems apply for our sites in Morrisville (New Zealand) and Ulsan (South Korea). Our sites in Gibbons and Maitland (Canada) and Singapore are subject to the relevant national CO₂ taxes. Overall, about 63 percent of Evonik's gross scope 1 and 2 emissions are subject to carbon pricing systems.

Carbon pricing

Evonik uses internal carbon pricing for major investments as a basis for effective management of its CO₂ reduction target. This adds another relevant indicator to the established planning parameters for investments such as exchange rates and raw material prices. The aim is to be able to reflect the development of carbon-intensive investments in a reliable and harmonized manner in all investment applications worldwide. At present, we assume that the carbon pricing for the EU ETS will be €95 per

23 facilities
within the scope
of the EU ETS
(EU Emissions Trading System)

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metric ton CO₂ up to 2030. In all other regions of relevance to Evonik, we are retaining our forecast of €50 per metric ton CO₂ by 2030 at the latest. In view of regional differences in the starting situation, we have developed scenarios for the development of carbon pricing—differentiated by countries and regions—showing the rise to the assumed final price. In these, we take into account both direct CO₂ emissions (scope 1 emissions) from production and energy generation and indirect CO₂ emissions from the purchase of secondary fuels (scope 2 emissions).

In the reporting period, we developed a CO₂ cost calculator. This allows efficient and systematic calculation of the CO₂ costs to be taken into account in every investment. Since this tool provides site- and fuel-specific emissions factors and regional scenarios for the development of carbon pricing, it permits harmonized evaluation of the CO₂ costs of investments throughout the Evonik Group.

Evonik Carbon Footprint

We pay special attention to greenhouse gas emissions along the value chain. Since 2008, we have reported an extensive overview of greenhouse gas emissions—from the extraction of raw materials through production to disposal of the products. The key parameter is the carbon footprint (CO₂eq footprint). The data cover Evonik's direct energy and process emissions (scope 1), emissions from purchased electricity and heat (scope 2) and relevant up- and downstream emissions (scope 3). These include emissions from the production of purchased raw materials, services, capital goods, energy-related emissions outside scope 1 and scope 2, emissions from inbound shipments of raw materials, from the disposal of waste, emissions caused by business trips, employees' commuting, and company cars, energy requirements for offices, and emissions from the transportation, use, disposal,

and recycling of products sold. The method is closely based on the GHG Protocol Standard of the World Resources Institute (WRI) and the World Business Council for Sustainable Development (WBCSD), as well as the Guidance for Accounting & Reporting Corporate GHG Emissions in the Chemical Sector Value Chain published by the WBCSD.

As part of our continuous improvements, methodological adjustments were made to the calculation of our GHG emissions in

2021. The adjustments mainly related to the scope 3 categories 1 "Purchase of chemical raw materials, packaging materials, and indirect goods and services," 2 "Capital goods," 3 "Energy-related activities," 8 "Leasing of goods, upstream," and 12 "Disposal and recycling of products sold." Using improved (primary) data-sources and higher data granularity had a different impact on the various categories. The 2020 data have been updated using the new procedure. The main changes were the inclusion of power trading in category 3 (+1 million metric tons CO₂eq) and the

inclusion of the gross instead of the net amount of net scope 2 emissions in the GHG inventory. In addition, emissions relating to the use and disposal of products sold are now reported separately in categories 11 and 12. The development of greenhouse gas emissions along our value chain and the contribution made by the individual categories in the GHG Protocol Standard are presented for 2020 and 2021 in table T11.

In 2021, greenhouse gas emissions rose to 28.4 million metric tons CO₂eq, compared with 26.5 million metric tons CO₂eq in 2020. This was due to a significant recovery in demand compared with the previous year, which was dominated by the pandemic-induced crisis, and the related pent-up demand. As expected, the increase in emissions is reflected in scope 3 category 1 "Purchase of chemical raw materials," and in categories 9, 11, and 12, which reflect the impact of higher sales volumes in the downstream value chain.¹

Other emissions into the air


Alongside emissions of greenhouse gases as reported above, energy generation and industrial production result in further emissions into the air. We want to reduce these further and therefore take the emissions situation into account when planning new facilities. Our clean air measures include returning exhaust gases to the production process, thermal processing of residual gases with a high calorific value (as substitutes for natural gas), the use of electric filters to remove particulates, the use of catalysts to reduce nitrogen oxide, and desulfurization by washing with subsequent precipitation. We also use other methods to reduce emissions from production facilities. Examples are wet

Evonik Carbon Footprint^a 305-3, 305-5

T11

Greenhouse gas emissions in million metric tons in CO ₂ eq		2020	2021
Scope 1	Direct energy and process-related emissions	4.9 ^c	4.8
Scope 2	Purchased energy (gross, market-based approach)	1.6 ^c	1.6
Scope 3 ^b	Category 1: Purchase of chemical raw materials, packaging materials, and indirect goods and services	10.1 ^c	11.4 ^d
	Category 2: Capital goods	0.5 ^c	0.4
	Category 3: Energy-related activities (outside scope 1 and 2)	1.8 ^c	1.4
	Category 4: Inbound shipments of chemical raw materials	0.3	0.6 ^e
	Category 5: Disposal and recycling of waste	0.4 ^c	0.3
	Category 6: Employee business travel	0.01	0.01
	Category 7: Employee commuting	0.06 ^c	0.06
	Category 8: Leasing of goods, upstream (company cars, power and heating requirements for offices)	0.01 ^c	0.01
	Category 9: Outbound shipments of products	0.3	0.5 ^e
	Category 11: Use of sold products (direct emissions only)	3.6 ^c	4.2
Category 12: Disposal and recycling of products	3.0 ^c	3.2	
Total		26.5^c	28.4

^a Differences between the data and totals are due to rounding differences. The data take into account carbon-binding by biomass at the start of the life cycle and biogenic CO₂eq emissions. Relevant amounts can be recorded for scope 3 categories 1, 11, and 12, and direct process emissions in scope 1.

^b Some calculations are based on assumptions and estimates. Scope 3 categories 10 "Processing of sold products," 13 "Downstream leased assets," 14 "Franchises," and 15 "Investments" are not reported. The "fast close" process is used for the reporting process, see "About this report"  p. 118.

^c Data corrected due to changes in the methodology and improved data availability. Separate disclosure of categories 11 and 12 and inclusion of gross scope 2 emissions and power trading in scope 3 category 3.

^d Includes a total of 1.4 million metric tons CO₂ from biological carbon sequestration.

^e Improved granularity of data and amendment of the data collection method for category 9 (and 4) from 2021.

¹  https://corporate.evonik.com/Downloads/Corporate%20Responsibility/evonik_2022_ecf_2021_en.pdf

and dry scrubbing, condensation, adsorption, and thermal and catalytic incineration. Some of these emissions treatment facilities are used simultaneously by several units. Our environmental management systems set the framework for us to achieve the statutory thresholds.


Other emissions into the air 305-6, 305-7

T12

in metric tons	2019	2020	2021
Carbon monoxide (CO)	1,135	1,084	1,096
Sulfur oxides (SO _x /SO ₂)	1,200	1,272	1,530
Nitrogen oxides (NO _x /NO ₂)	3,807	3,762	3,799
Non-methane volatile organic compounds (NMVOC)	873 ^a	876	939
Particulates	498	461	536
Heavy metals (As, Cd, Cr, Cu, Hg, Ni, Pb, Zn)	0.39	0.37	0.27
Ozone-depleting substances ^b in metric tons CFC-11 equivalents	0.06	0.06	0.20

^a Corrected data.


^b Emissions of ozone-depleting substances calculated in accordance with the Montreal Protocol.

Emissions of non-methane volatile organic compounds (NMVOC) and particulates increased in 2021 due to higher capacity utilization in production facilities. The increase in SO_x emissions in the reporting period was mainly attributable to unplanned shutdowns at the sulfuric acid recycling facility. The decline in heavy metal emissions was principally due to a reduction in the use of coal in energy generation at Marl Chemical Park in Germany.  305-6, 305-7



Evonik has high standards of technology and infrastructure for wastewater disposal at its sites.

Very low level of ozone-depleting substances

The ozone-depleting chlorofluorocarbons (CFCs) are presently only used as refrigerants on a very restricted basis as a transitional solution in line with national and international regulations. Emissions of ozone-depleting substances fluctuate at a low level due to aperiodic replenishment of refrigerant systems. Consequently, they were again very low in 2021. The main substitutes at present are partially fluorinated hydrocarbons (HFCs), which are used in decentralized air-conditioning systems and small process cooling systems. These substances do not harm the ozone layer, but they have a significant impact on the climate. We anticipate that these refrigerants will be replaced by more climate-friendly products in the mid-term. The greenhouse gas potential of the refrigerants is shown in table **T10** "Greenhouse gas emissions"  p. 80.


THE ENVIRONMENT

Water management

Water management

We save water wherever possible and endeavor to achieve a further reduction in our emissions into water. A good water supply is crucial for smooth production.

Strategy and management

Evonik strives to use water as efficiently as possible. The availability of water as a resource depends enormously on regional and local conditions. By using water stress analyses at production sites, we aim to pay greater attention, in particular, to the considerable local differences in the availability of water. For us, water stress refers first and foremost to the availability of water for production. Our sustainable water management also takes into account quantitative, qualitative, and social aspects of water use. We identify the potential for improvement at our sites and endeavor to minimize the use of water, especially in water stress areas, in order to respect the needs of our neighbors. We plan to develop a new quantitative water target through a strategic project in 2022.  303-1, 303-2

To take account of projections for climate change and socio-economic developments, in 2019 we identified sites that are particularly likely to be affected by water stress in the next 20 years. These findings were revised and updated in 2020. Our definition of water stress is based on the AWARE method¹ recommended by the EU Commission. In our examination of the relevant sites, we use the AWARE categories: extreme—high—medium—moderate. In the reporting period, ten production sites

¹ AWARE stands for Available WAter REmaining.

were classified as being exposed to extreme or high water stress using the AWARE system and a further nine were classified as having medium or moderate exposure.

We are therefore initially focusing our effort to achieve our present water target on our major integrated production sites and sites in regions exposed to water stress. For all sites with a water stress classification of high or extreme, we conducted further interviews and analyses of measures in the reporting period. Our ESHQ experts and process and technology experts responsible for the relevant sites were involved in this. At sites concerned in China, India, the USA, South Korea, and Europe, we also held detailed local discussions on water use and possible options to reduce it. We are planning to undertake a systematic analysis of all sites with a classification of moderate or low by 2023.

On this basis, site-specific action plans were drawn up to ensure effective preventive measures. For example, at our “water stress” site in Onzonilla (Leon, Spain), the previous open cooling system has been replaced by a closed cooling tower. This reduces water requirements by about 40 percent, which almost doubles our resource efficiency. At our site in Ulsan (South Korea), the production of H₂O₂ by the Active Oxygen business line generates large amounts of heat. Due to economic considerations, disposal primarily involves cooling with water. Switching from through-flow cooling to a solution based on a cooling tower has been examined.

We have introduced suitable management processes to monitor the achievement of our global water target. In addition to water stress, other aspects of water management examined include, for example, infrastructure and transportation options (see “Trans-

portation safety and logistics” [p.112](#)). This is supplemented by a risk analysis covering the potential impact of natural catastrophes such as storms, hail, floods, hurricanes, tornadoes, and heavy rainfall. We arrange for our sites to be audited regularly by insurance companies. [303-1](#), [303-2](#), [303-3](#), [303-4](#), [303-5](#)



Wesseling (Germany): A cooling tower made of glass-fiber-reinforced plastic reduces the temperature of cooling water after use. Some of the water can be re-used in the cooling system.

THE ENVIRONMENT

Water management

Our activities in 2021

Evonik strives to steadily reduce specific water withdrawal at all sites. For example, in the reporting period we replaced the old cooling tower at our silica production on plant in Wesseling (Germany) with a new two-cell cooling tower. As well as allowing energy-efficient cooling of treated wastewater after rinsing the filter presses in the production plant, the new tower is more effective. This improvement means that production can now operate all year round, without seasonal interruptions. In addition, it greatly reduces the temperature of the water discharged into the river Rhine.

Moreover, Active Oxygen looked at the possibility of alternative uses of exhaust heat in Rheinfelden (Germany). Installing a heat pump that uses the approximately 60 °C wastewater stream to generate electricity might bring a further improvement in the total energy efficiency of the H₂O₂ production process. The analysis is continuing. We expect more detailed findings in the next three years.

Novel processes to treat wastewater

Alongside site-specific measures, Evonik constantly strives to develop new wastewater treatment processes. As part of the publicly funded RIKovery project¹, we are investigating a new technology for the treatment of aqueous solutions: flow electrode capacitive de-ionization. The aim is to use this technology to treat wastewater containing salts. One potential application in the future could be returning sodium chloride from electrolysis to the production cycle. That would make a significant contribution to reducing emissions of neutral salts. The aim of this project is to scale up this process, which has been tested successfully on a laboratory scale, to pilot/industrial scale.

¹ Funding reference O2WV1569B.

In addition, we are currently conducting a study with accompanying lab tests at the Wesseling site in Germany on anaerobic treatment of a wastewater stream that is currently incinerated. The aims are to save energy (incineration) and utilize the organic substances in the wastewater (biogas). We estimate that this could reduce CO₂ emissions by approximately 10,000 metric tons p.a.

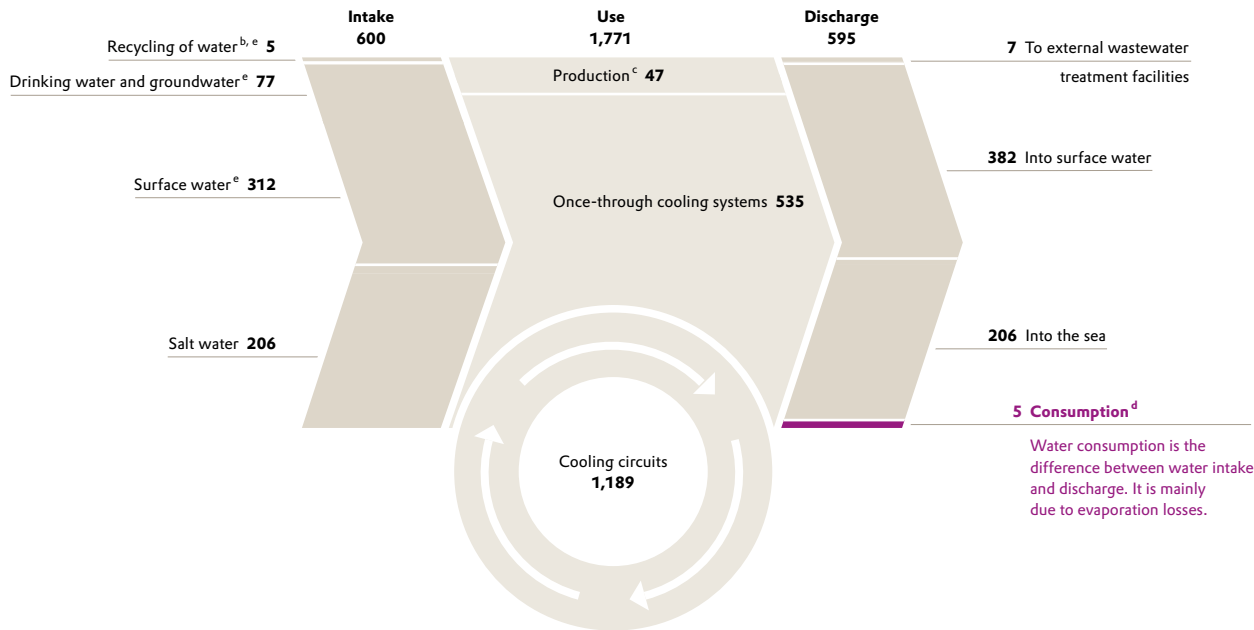
Water data

Total water intake was 600 million m³ in the reporting period, while discharges amounted to 595 million m³. The difference of 5 million m³ between water intake and discharge mainly comprises water used to replace evaporation losses. Around 97 percent (1,723 million m³) of our total water intake (including water consumption) was for cooling purposes in energy generation and production. Only around 3 percent (47 million m³) was used for production purposes. We include water used in closed cooling

Evonik's water data 2021 

C29

(in million m³ p.a.)^a



^a Figures in the chart are rounded.
^b Recycling of water from third parties, including use of rainwater.
^c Water used in chemical processes, including generation of steam and water for sanitary purposes.
^d Water consumption in accordance with GRI Standard 303-5 (2018).
^e Freshwater.

THE ENVIRONMENT

Water management

circuits and evaporation losses when calculating the proportion of total water used for cooling.

Evonik's consumption of freshwater—the total of recycled water, drinking water, groundwater, and surface water—increased from 322 million m³ to 394 million m³ in the reporting period. Group-wide, the groundwater required for once-through cooling increased to 312 million m³ (+30 percent). This was mainly due to production increases in Jilin (China) and Antwerp (Belgium). Salt water used for cooling purposes was reduced by 14 percent as a consequence of production optimization at the methionine complex in Singapore. The consumption of drinking water and groundwater was unchanged from the previous year.

Water intake by source 

T13

in million m ³	2019	2020	2021
Drinking water ^b	19.1	18.7	20.7
Groundwater	60.4	59.7	56.6
Surface water	213.9	239.2 ^c	311.6
Recycling of water from third parties and use of rainwater	3.7	4.1 ^c	4.8
Total freshwater	297.0	321.7^c	393.7
Salt water (sea water)	226.6	239.7	206.0
Total	523.6	561.4	599.7
Production			
in million metric tons	9.2	8.9	9.5
Specific water intake			
in m ³ freshwater per metric ton production	32.4	36.5	41.3

^a Differences between the data and totals are due to rounding differences.
^b Water from municipal or other utilities.
^c Corrected data.

Emissions into water

Our sites aim to make a contribution to protecting natural water resources. When planning new production plants, we therefore consider the use of processes that generate little or no wastewater. Where contaminated water from production processes (production effluent) is unavoidable, partial streams are tested, for example, for biodegradability. We have high technology standards and infrastructure for the disposal of wastewater at our sites. In some cases, production effluent is pretreated in the production plants. Consequently, the effluent load of wastewater discharged into our own or third-party treatment facilities is moderate.

At Marl Chemical Park in Germany, sewage sludge is dewatered in our own treatment plant and subsequently incinerated in our own facilities with integrated flue gas treatment. We use some of the exhaust gases from the production plants as substitute fuels. The incineration gases are then used to generate 20 bar steam. Wastewater discharged from our sites is carefully monitored by regular sampling and continuous measuring equipment. These analyses support the management of our wastewater treatment facilities. Moreover, many analyses are required by legislation on self-monitoring. In addition, the authorities frequently perform unannounced checks to monitor discharges.

In 2021, we discharged a total of 595 million m³ wastewater, including 7 million m³, which was channeled to third-party facilities (e.g., municipal facilities) for treatment (indirect discharge). 53 million m³ were discharged directly into water via our own drainage system after treatment in Evonik wastewater treatment facilities. These direct discharges also include amounts accepted from third parties for treatment at the wastewater treatment facilities operated by us at chemical parks.

From 2021, our external reporting only discloses the wastewater loads of direct discharges (see "About this report" p.118). In view of this, data from 24 direct discharge sources were included in the reporting period.

Organic substances—expressed as chemical oxygen demand (COD)—account for the highest proportion of our wastewater loads. COD is the concentration of all substances in the wastewater that can be oxidized under certain conditions. The wastewater loads of direct discharges were mainly unchanged from the previous year. Larger fluctuations are due to changes in production processes, fluctuations in production, and improvements at wastewater treatment facilities.



Evonik regularly analyzes samples of production effluent at its sites.

THE ENVIRONMENT

Water management

Wastewater loads^a 303-2

T14

in metric tons	2019	2020	2021
Chemical oxygen demand (COD)	4,643	3,872	1,406
thereof direct discharges		1,438	1,406
thereof indirect discharges		2,435	—
Total nitrogen (N)	293	217	144
thereof direct discharges		167	144
thereof indirect discharges		51	—
Total phosphorus (P)	74	67	43
thereof direct discharges		51	43
thereof indirect discharges		15	—
Absorbable organic halogen compounds (AOX)	1.4	1.1	1.1
thereof direct discharges		1.0	1.1
thereof indirect discharges		—	—
Heavy metals (As, Cd, Cr, Cu, Hg, Ni, Pb, Zn)	1.8	1.5	1.4
thereof direct discharges		1.5	1.4
thereof indirect discharges		—	—

^a Differences between the data and totals are due to rounding differences.

We installed a new oxidative wastewater pretreatment plant at the Marl Chemical Park in Germany at the start of 2021. The background to this is the construction of a new polyamide 12 complex by Evonik and a new cumol plant by INEOS. The new pretreatment plant will substantially alter the quality and amount of wastewater. It is based on the Fenton process, with oxidative treatment taking place at 50 °C–60 °C and pH 2.5 to 3 in the presence of hydrogen peroxide and iron II sulfate.

Waste management

Clear priorities have been set for our efforts to further reduce production waste. The first priority is to avoid waste through continuous process improvements and by extending integrated production systems, otherwise waste should be recycled or used to generate energy. As a third option, if this is not possible, it should be disposed of safely.

Strategy and management

Continuous optimization of production processes contributes to avoiding and minimizing waste. That includes in-plant reprocessing of substance streams and the use of highly specialized catalysts to minimize side-reactions. Where waste is unavoidable, the focus is on mechanical or thermal reprocessing. For this, we have set up collecting stations at our sites. Various types of recyclable waste such glass, paper, and wood are collected separately and sent to external recycling firms. We regularly monitor them through audits and demonstrate their suitability in conformance with statutory provisions.

We also use the benefits of integrated production sites and systems for systematic waste management. By-products of a production process are used as raw materials in other production plants. For example, at the integrated C₄ production facilities at our site in Marl (Germany) we produce butadiene, butene-1, MTBE (methyl-tert-butylether), isononanol, and plasticizers. Integrated

Waste^{a,b} 306-1, 306-2, 306-3, 306-4 T15

in thousand metric tons	2019	2020 ^c	2021
Hazardous production waste, reprocessed	113	106	145
<i>thereof internal/external</i>		58/48	76/69
Hazardous production waste, disposal	105	98	105
<i>thereof internal/external</i>		63/36	73/32
Non-hazardous production waste, reprocessed	50	49	50
<i>thereof internal/external</i>		2/47	5/46
Non-hazardous production waste, disposal	58	58	54
<i>thereof internal/external</i>		14/44	13/41
Subtotal production waste	325	311	354
<i>thereof internal/external</i>		136/175	167/187
Hazardous building and demolition rubble, reprocessed	2	2	1
<i>thereof internal/external</i>		0/2	0/1
Hazardous building and demolition rubble, disposal	40	35	50
<i>thereof internal/external</i>		1/34	1/49
Non-hazardous building and demolition rubber, reprocessed	95	95	43
<i>thereof internal/external</i>		0/95	0/43
Non-hazardous building and demolition rubber, disposal	37	37	26
<i>thereof internal/external</i>		0/37	0/26
Total	500	479	473

^a Differences between the data and totals are due to rounding differences.

^b Only includes waste streams in the gate-to-gate process.

^c Data corrected due to the "fast close" process, see "About this report" p.118.

THE ENVIRONMENT

Waste management

Waste management^a 306-4, 306-5 T16

in thousand metric tons	2019 ^b	2020	2021
Incineration with recycling of heat energy	54	52	63
Disposal by incineration	97	90	90
Recycling (including composting)	160	147	137
Landfill	101	89	90
Chemical/physical/biological treatment	26	30	33
Other reprocessing methods	46	49	36
Other disposal methods	16	21	25
Total	500	479	473

^a Differences between the data and totals are due to rounding differences.

^b Data corrected due to the "fast close" process, see "About this report" p.118.

management means that waste products can be used in other plants. Liquid organic residues are used as a substitute for heating oil in the gas synthesis plant at this site, and waste sulfuric acid is recycled in the sulfuric acid plant. Alongside reprocessing methods, waste with a high calorific value ("substitute fuel") is used to produce energy. This reduces the use of primary fossil fuels. We use some of the exhaust gases from production plants as substitute fuels. Heat from the substitute fuels and incineration gases is used to generate steam.

Next year, a project will be set up to develop a target for waste at Evonik.

Restructuring of waste disposal in Marl (Germany)

In our analysis of waste management/the circular economy, we distinguish between waste processed on-site and waste transferred off-site. From 2020, this approach is also used in our external reporting to enhance transparency.

Initially, the analyses focused on the efficiency of the facilities, their environmental impact, and internal waste management. This showed, in particular, that modernizing the power plants at Marl Chemical Park has significant implications for the waste treatment infrastructure. When the coal-fired power plant is decommissioned (scheduled for 2022), it will no longer be possible to dispose of liquid waste from the chemical park in this power plant. We therefore examined new options for the disposal of the liquid waste/substitute fuels used to generate power at this plant. SARP Industries has been engaged as the new waste disposal provider at Marl Chemical Park and has been operating the existing facility since mid-2021. In addition, SARP Industries took a new storage tank for liquid waste into service at the end of 2021. The liquid waste from this facility will initially be disposed of at external disposal facilities. Later it will be treated in the extended hazardous waste incineration plant at the site. Extension of this plant is scheduled for completion in 2023.

Our activities in 2021

Production waste increased to 354,000 metric tons (+14 percent) in 2021. This is attributable to a substantial rise in production, especially in the Performance Intermediates business line and to the partial start-up of the new polyamide 12 complex in Marl. The proportion of hazardous production waste that could be reprocessed rose to 58 percent in 2021 (2020: 52 percent).

[306-1, 306-2](#)

Building and demolition rubble decreased to 119,000 metric tons in the reporting period (-29 percent). This was due to a reduction in construction activity at the site in Marl, where most of the preparatory earthworks for the restructuring of the power plants were completed in 2020.

The percentage of waste reprocessed comprises recycled substances, incineration with recycling of heat energy, and other disposal methods. The reprocessing rate was 50 percent in 2021 (2020: 52 percent). The reduction was mainly due to the reduction in building and demolition rubble in Marl. As a specialty chemicals company, we are involved in research and development work on mechanical and chemical recycling (see "Value chain and products" [p.55](#)).



Aerial view of Evonik's site in Marl (Germany), its largest production site.

Biodiversity

We are aware that our business operations involve both opportunities and risks with regard to maintaining biological diversity. This applies, above all, to our global production and includes the raw materials we purchase and the use of our products.

Strategy and management

Maintaining biological diversity is increasingly becoming a focus of companies, consumers, and investors. At the same time, regulatory requirements and incentives for related measures are being introduced and driven forward. We have identified the UN Sustainable Development Goals (SDGs) of particular relevance for Evonik (see "Strategy and growth" [p.20](#)). Biodiversity plays a role, in particular, in SDG 12 (Responsible consumption and production).

The starting points for our examination of biodiversity are conventional environmental topics such as emissions into water and the air, and responsible water and waste management, which we report on regularly. Evonik has included biodiversity in its materiality analysis since 2017 in response to feedback from internal and external stakeholders. In the reporting period, we bundled our contributions to biodiversity in the Sustainability Focus Area safeguard ecosystems. ("Strategy and growth" [p.16](#); special section "Sustainability Focus Areas" [p.59](#)). For 2022, we are planning a strategic project to look more intensively at biodiversity.



Special marine coatings produced by Evonik prevent organisms such as algae and mussels fouling ships' hulls and reduce the spread of non-native species.

Evonik's products and solutions¹

Declining biodiversity has a negative effect on Evonik's business activities. At the same time, our business activities can have a negative effect on biodiversity. Evonik's products and solutions also play a part in maintaining biodiversity and help protect habitats. For example, the use of amino acids in the nutrition of poultry and pigs greatly reduces the land required to produce feed. The use of our amino acids in aquaculture aims to maintain marine biodiversity by replacing the use of fishmeal and fish oil. For salmon farming, Evonik and DSM have jointly developed an

innovative process for biotechnological production of omega-3 fatty acids from natural algae. This can avoid the use of fish oil, which is a limited resource. The joint venture Veramaris has a world-scale production facility in Blair (Nebraska, USA). Veramaris therefore helps meet demand from the global salmon farming industry for the omega-3 fatty acids EPA² and DHA³. Evonik produces marine coatings (AEROSIL® VP 4200) to protect ships from fouling by marine organisms and thus reduce the spread of non-native species in our oceans. In the selection of raw materials, we apply internationally recommended certification standards for palm oil and plan to use exclusively deforestation-free palm derivatives from 2023 (see "Value chain and products" p.53). Evonik participated in CDP Forest in the reporting period and was awarded a B rating.

Our activities in 2021

Our internal biodiversity task force monitors and analyzes national and international developments relating to biodiversity. In the reporting period, we played an active part in the stakeholder dialogue on biodiversity organized by the Chemie³ initiative:⁴ The aim of this dialogue is to identify present and future challenges, develop an understanding of different positions, and find solutions. At European level, we are engaged in close exchange with the European Commission, through the German chemical industry association VCI and Cefic, on soil biodiversity and are playing an active role in shaping the planned new soil strategy⁵.

THE ENVIRONMENT

Biodiversity

For biodiversity analyses, we use a geoinformation system based on the data of the IBAT Alliance⁶. On this basis, we annually examine the potential impact of our worldwide sites on areas of special significance for biodiversity. This focuses on all sites within one kilometer of conservation areas. The next table shows our ten largest production sites adjacent to conservation areas.

Evonik production sites adjacent to conservation areas 2021 304-1

T17

Production site	Country	Area in km ²	IUCN ^a categories	Ramsar ^b area
Lafayette	USA	7.004	V	
Marl	Germany	6.521	IV, V	
Morrisburg	Canada	1.132	Ia	
Antwerp	Belgium	1.083	IV	x
Lülsdorf	Germany	1.003	IV, V	
Hanau-Wolfgang	Germany	0.774	IV, V	
Rheinfelden	Germany	0.407	V	
Wesseling	Germany	0.330	IV, V	
Herne	Germany	0.261	IV, V	
Krefeld	Germany	0.237	V	

^a IUCN = International Union for Conservation of Nature.

^b Ramsar Convention = convention on wetlands, especially as habitats for waterfowl.

¹ For further information relating to Evonik's products, see "Value chain and products" p.57.

² EPA = eicosapentaenoic acid.

³ DHA = docosahexaenoic acid.

⁴ Chemie³ = sustainability initiative of the German chemical industry. www.chemiehoch3.de

⁵ https://ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/12634-Healthy-soils-new-EU-soil-strategy_en

⁶ The IBAT Alliance comprises the following four non-governmental organizations: (1) BirdLife International, (2) Conservation International,

(3) International Union for Conservation of Nature (IUCN), (4) United Nations Environment Programme World Conservation Monitoring Centre (UNEP-WCMC).

The list has not changed compared with 2020, but the surface area of some German sites has been reduced by the sale of real estate.





Our site in Mobile (Alabama, USA) is close to the Fowl River. The US Environmental Protection Agency (EPA) is currently altering the status of this watershed area around this river (approx. 21,360 hectares) to a water conservation area. Evonik supports this plan and is a member of the Fowl River Forever steering committee that is working on a management plan to protect and improve the water quality. This should ensure that nature and animals are protected, the local community can use the area for recreation, and the watershed is protected in the long term.

At our site in Lafayette (Indiana, USA), Evonik Tippecanoe Laboratories has worked with the not-for-profit organization The Nature Conservancy for more than 25 years. Two sections of the site that are not used for industrial purposes have been classified as gravel hill prairies and assigned to The Nature Conservancy. Once found widely across parts of the Midwest, there are now only a few of these ecosystems left in the state of Indiana. They sustain plant species such as prickly pear that are normally only found in arid desert regions in the United States. The Nature Conservancy manages the removal and eradication of invasive species that threaten native plants. Control methods include physical removal and controlled burns. The invasive species include honeysuckle, garlic mustard, Russian olive, Bradford pear, and several types of thistles.

Our targets




Below is an overview of the targets set for the environment area of action.

Target attainment in 2021

-  Reduce absolute scope 1 and scope 2 emissions by 50 percent by 2025 (reference base: 2008; status at year-end 2021: -43 percent)
-  Reduce absolute scope 3 emissions from the upstream value chain—principally from the “raw material backpack”—by 15 percent by 2025 (reference base: 2020)
-  Develop site-specific action plans for sites that are potentially exposed to water stress as part of a global water management system
-  Reduce both absolute and specific energy consumption by 5 percent by 2025 (reference base: 2020)


Targets for 2022 and beyond

- Reduce absolute scope 1 and scope 2 emissions by 50 percent by 2025 (reference base: 2008)
- Reduce absolute scope 3 emissions from the upstream value chain—principally from the “raw material backpack”—by 15 percent by 2025 (reference base: 2020)
- Develop site-specific action plans for sites that are potentially exposed to water stress as part of a global water management system
- Reduce both absolute and specific energy consumption by 5 percent by 2025 (reference base: 2020)

-  Target not achieved
-  Target partially achieved or target horizon extends beyond 2021
-  Target achieved



Katharina Rawert with her son Matteo
Employee at our site in Marl (Germany)


You can find related videos in our [online report](#)

Employees ✓

People are at the heart of the workplace at Evonik. Our employees are the basis of our success. Their professional qualifications and commitment are their key attributes and make Evonik strong.

SDG OF PARTICULAR RELEVANCE FOR EVONIK



KEY TOPICS

- Appeal as an employer
- Vocational training and continuing professional development
- Diversity and equal opportunity

2.2%

Early employee turnover

€73.2 million

Spending on training and continuing professional development

84%

Participation rate in employee survey

5.8%

Vocational training rate¹

¹ Average for the German chemical sector: approx. 5 percent.





EMPLOYEES

- 93 Employees**
93 Strategy and management
- 93 Appeal as an employer** ⓘ 102-8, 102-36, 102-37, 102-41, 103-2, 401-1, 401-2, 401-3, 402-1, 404-2, 404-3
- 93 Strategy and management
95 Our activities in 2021
- 100 Diversity and equal opportunity** ⓘ 202-2, 401-2, 404-2, 405-1
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- 104 Our targets** ⓘ 102-14, 102-15

Employees

Our goal of becoming a best-in-class company can only be achieved with the best employees. That places high demands on our human resources activities. Evonik aims to steadily develop as an attractive employer.

Strategy and management

We continuously develop our human resources (HR) activities as part of the HR strategy process, in line with our materiality analysis and the goals of our corporate strategy. The focal areas of our HR strategy are aligned with our businesses and key trends in our markets. We have defined the following focal areas:

- Enabling leaders in reshaping the business
- Engaging people in their career path
- Ensuring availability of mission-critical talent
- Offering performance-oriented reward opportunities.

Our global HR organization provides efficient digital services and processes such as myHR and a global knowledge database for managers and employees to support the objectives of these focal areas.

Our HR organization comprises the HR Talent Management and HR Business Management functions, both of which have global management tasks and work closely together. HR Talent Management bundles activities relating to attracting, developing, retaining, and leading employees. HR Business Management coordinates the regional employer function, all performance-related aspects, and the global HR Solutions & Systems Organization, Labor Relations, HR IT, and Workforce Analytics units.

EMPLOYEES

Appeal as an employer

The heads of both HR functions report directly to the chief human resources officer (CHRO). The HR Executive Committee is the highest decision-making body for HR. It adopts the global strategy for the functional structure of the units and makes decisions on the group-wide human resources strategy. The committee comprises the CHRO, selected representatives of the divisions, and the heads of HR Talent Management and HR Business Management. The permanent members of the Global HR Roundtable, which is an operational decision-maker, are the HR representatives of the divisions and regions and the process owners from the HR organizational units. The HR Business Council, which is chaired by the CHRO, drives continuous exchange about the portfolio and performance of the global HR units. It includes all HR representatives of the divisions and the heads of the two HR functions.

The development of corporate executives is a separate function, which reports directly to the chairman of the executive board.

Appeal as an employer

We want to offer attractive working conditions in order to gain and develop the most talented staff for Evonik. As well as cultural and network initiatives and opportunities for learning and professional development, we offer our employees performance-oriented remuneration and additional benefits. We also place special emphasis on flexible working conditions, work-life balance, and health-related measures.

Strategy and management

Our employees are our most important advocates and the heart of the global employer branding campaign #HumanChemistry. They give Evonik a distinctive identity on our careers website and

social media channels. We track the development of our employer brand through external rankings and internal surveys. Early employee turnover is a key indicator for us.

Talent management

Attractive career paths, job rotation, and high-quality development programs and, in some cases, hybrid development programs are essential to develop tomorrow’s top executives. We regularly assess and evaluate potential succession scenarios and development requirements at HR meetings attended by the executive board.

Onboarding

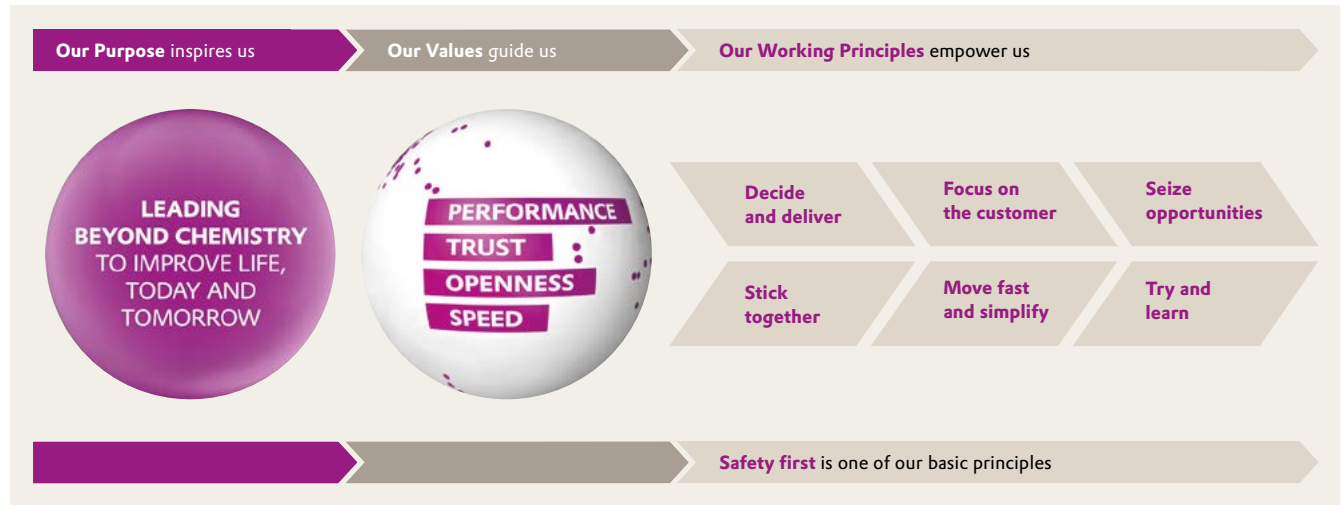
Due to the coronavirus pandemic, we had to come up with innovative virtual solutions to integrate new employees quickly and reliably into our culture and specialist areas while meeting health and safety requirements. Virtual welcome events and video blogs have proven a good way to help people get to know each other and strengthen networking.

Evonik’s global onboarding concept is recognized as an example of best practice in the sector and was rewarded by gold, silver, and bronze awards at the Brandon Hall Awards 2021. In HR Online’s 2021 Asia Employee Experience Award for the best onboarding experience, we won bronze.



ONE Culture

C30



Employee survey

Roughly every three years, we ask our approximately 33,000 employees worldwide to give an anonymous assessment of their working environment. The sixth group-wide employee survey was held in November 2021, and the participation rate was once again high at 84 percent. The employee survey gives us an insight into how organizational changes and the implementation of our corporate values—performance, openness, trust, and speed—are perceived throughout the Evonik Group. The commitment index, which was measured on the basis of six of the 56 survey items, was 73 percent (reference base 2018: 68 percent). The questions focused on employees’ general satisfaction with employment at the company, whether they would recommend the company as an employer, whether they are proud to work for Evonik, their support for Evonik’s future direction,

motivation, and team spirit. In the reporting period, we conducted around 50 ad-hoc surveys and checks on sentiment on a variety of topics. These included questions about future forms of work.

ONE Culture initiative

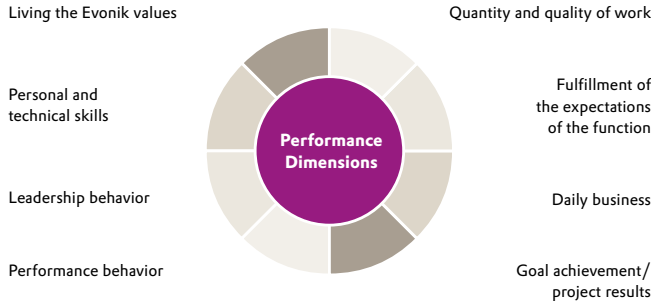
Our success is built on diversity and a common understanding of the binding elements of the Evonik Group: our purpose, our values, and the working principles derived from them. The ONE Culture initiative strengthens these elements in our daily work. Key success factors are employee engagement, group-wide sharing of ideas, and cross-functional collaboration. In the reporting period, these requirements were integrated into many formats, such as the Evonik competency model, onboarding workshops, and learning journeys.

Performance management system

Performance management at Evonik is based on eight performance dimensions.

Performance management

C31



As well as performance and leadership behavior, these include the achievement of goals and the quality and quantity of work. The behavior with which results are achieved is also taken into account. Compared with the previous year, greater emphasis was given to three aspects—diversity, sustainability, and leadership behavior. These are incorporated into Evonik’s competency model, which describes the abilities our executives bring with them and are expected to develop in their teams. We are convinced that sustainable business activities and the diversity of our teams are the basis for performance excellence.

Around 80 percent of our employees worldwide receive a regular performance appraisal. 72 percent of the employees appraised are men, and 28 are women. 70 percent are non-exempt employees, and 30 percent are exempt employees. **404-3**

Employees by contractual status

Around 96 percent of our permanent employees worldwide have permanent contracts. We work with staffing agencies in Germany to cover short-term or temporary bottlenecks. All agencies must provide evidence of a valid operating permit. If agency staff have been used for a job for more than six months, we examine whether it is a permanent job for which a permanent employee can be hired. Alongside appropriate remuneration, we make sure that agency staff are covered by the high social and safety standards applicable for our own staff. Since the chemical industry requires a large number of highly qualified employees, fewer agency staff are used than in other sectors of manufacturing industry. Evonik had around 506 agency staff in Germany as of December 31, 2021. That was about 3 percent of our workforce in Germany.

Employees by contractual status, region, and gender 2021

102-8 T18

No.	Employees	of which employees on permanent contracts	of which employees on limited-term contracts	of which apprentices/trainees
Evonik	33,004	30,463	1,433	1,108
EMEA	22,461	20,828	533	1,100
Asia-Pacific	5,036	4,139	897	–
Central & South America	701	691	3	7
North America	4,806	4,805	–	1
Women in %	26	26	35	23

EMPLOYEES

Appeal as an employer

Our activities in 2021



Leading Employers is the world’s most extensive study of employer quality. In 2021, it once again evaluated around 100,000 companies in Germany. For the fourth time in succession, Evonik received the Leading Employer award in Germany and was ranked as the best employer in the chemical sector. In the cross-sector ranking, Evonik ranked tenth, positioning it among the top 10 of the most attractive companies in Germany. In China, Evonik was once again listed as one of the ten most popular employers by the Top Employer Institute.

We undertook specific projects to support our operational units in the implementation of their growth strategies and to help them fill key positions. For example, for our Health Care business line in North America, our activities included a regional media campaign and a digital theme page on the careers website. To increase our appeal as an employer, we ran a campaign for the Rheinfelden site in Germany on all of Evonik’s digital channels (#MyRheinfelden). For this, we won gold in the Digital Communication Awards 2021.



Credibility and the meaning of work increasingly influence people's choice of employer. Therefore, we launched a global campaign, #WhyWeDolt, where employees talk about their motivation and their passion for their work. Interviews, experience reports, and videos are published on our careers website and social media channels, such as Instagram and LinkedIn, and specifically target potential employees. #WhyWeDolt is part of our #HumanChemistry employer branding campaign.

To make Evonik's identity as an employer tangible to the relevant target groups, we also use a concept centered on global advocates at careers fairs, in our collaboration with student networks, via Instagram takeovers and posts on #HumanChemistry, and our trilingual careers website. Employees can use training on specific topics in the community for continuous professional development. Our people stories, where employees give an insight into their life and career paths, achieve particularly high interaction rates. In the Digital Communications Award 2021, we won silver in the "storytelling" category.

In the future, we will be measuring our activities via an employer branding cockpit to allow comparison with other companies. The employer branding attractiveness index calculated from this is derived from ten indices with more than 30 KPIs. The findings will be used to drive forward our employer branding strategy.

Employee satisfaction and retention

Early turnover and total employee turnover were both higher than in previous years. Early turnover increased from 1.3 percent to 2.2 percent, and the total turnover rate rose from 4.4 percent to 7.0 percent. These increases were attributable to demographic trends, increasing competition on the labor markets, and pandemic-related factors.

Length of service 401-1

T19

	2019	2020	2021
Early employee turnover in %	0.9	1.3	2.2
Total employee turnover in %	5.2	4.4	7.0
Average length of service in years	14.8	14.7	14.5

Employee turnover

T20

	Turnover in %	No. of employees who left the company
By region		
Asia-Pacific	10.3	520
Central & South America	10.3	69
EMEA	5.3	1,199
North America	10.9	529
By gender		
Female	6.6	560
Male	7.1	1,757
By age		
Under 30 years	7.2	454
30-50 years	5.1	819
Over 50 years	9.8	1,044
	7.0	2,317
thereof termination by the employee	2.7	884


EMPLOYEES

Appeal as an employer

Fair remuneration

Fair, market- and performance-oriented remuneration is anchored in our human resources tools worldwide. The principles we use to structure remuneration, including fringe benefits, are set out in group-wide policies. Remuneration is set on the basis of objective criteria such as responsibility, competencies, and success. In addition, minimum standards defined by law and in collective agreements, e.g., the relevant local minimum wage, are applied. Personal attributes such as gender, age, etc., play no part in the process, and our policies explicitly rule out discrimination on the basis of such criteria.

Gender pay gap

In the major regions where Evonik operates, the difference in the average annual base salary of men and women is in the low single-digit percentage range. This applies equally to management and non-management positions. This overview includes Germany, the USA, and China and therefore covers the majority of our business activities.  405-2

Evonik complies with its obligation to provide information on equal pay for men and women in comparable functions under the German Salary Transparency Act. Six inquiries were received in 2021, but all were rejected on data protection grounds after examining the inquirer's right to information.


In 2021, we paid out €2,668 million in wages and salaries.

 102-36, 102-37, 102-41, 202-1, 401-2

Personnel expense

T21

in € million	2020	2021
Wages and salaries	2,460	2,668
Social security contributions	388	409
Pension expenses	233	255
Other personnel expense	87	76
	3,168	3,408

Collective agreements on remuneration cover 100 percent of our employees in Germany and around 71 percent of our employees worldwide. There are performance- or profit-oriented incentive systems at around 97 percent of our sites and companies. These systems cover around 99 percent of our employees.  102-41

Evonik offers voluntary social benefits in all regions where it has a presence. These are available to more than 99 percent of our employees. Close to 100 percent of our employees have statutory or company pension insurance and health insurance. As a rule, part-time employees benefit from our performance- and profit-oriented incentive systems and our voluntary social benefits, provided that they meet the minimum working hours prescribed in some regions. In addition, in 2021 we once again offered employees in Germany, the USA, Belgium, and Singapore the opportunity to take part in the Share employee share program. The participation rate remained high at 41 percent.

Evonik offers pension plans in many countries, where it is customary to do so. In the past, defined benefit pensions financed solely by the employer were most common. Newer, defined contribution plans are generally based on mandatory or voluntary contributions by employees. Since the structure of pension plans differs by country, there are also differences in the level of contributions made by employees and/or the employer. Examples are the plans available to newly hired employees in Germany and the USA. In Germany, employees can choose to make a personal contribution of 0, 3, 4, or 6 percent of their salary. The contribution made by the employer rises with the personal contribution. In the USA,

the pension plan is based on standard employee contributions of 6 percent of their salary, which can be increased or decreased individually. The employee's total contribution is topped up by graduated employer contributions.



Work-life balance

Evonik places value on an HR policy that is family-friendly and geared to different phases in people's lives. More than 95 percent of our employees around the world have access to related initiatives. At the heart of this approach are flexible worktime models, support for people caring for close relatives, and assistance with childcare. Our PAIRfect job-sharing platform helps employees structure their worktime more flexibly by bringing together colleagues who want to share a job.

EMPLOYEES

Appeal as an employer

Evonik is perceived by the general public as a family-friendly employer. Since 2009, we have been audited regularly by the Hertie Foundation for the berufundfamilie certificate. In the reporting period, the audit of our offerings to promote work-life balance ranked them as above-average. Moreover, the German women's magazine BRIGITTE once again singled out Evonik as one of the best employers for women. Our site in Mobile (Alabama, USA) received the Leading Workplace for Women award from the Girl Scouts of Southern Alabama.

#SmartWork project




SmartWork refers to a hybrid approach that aims for a balanced mixture of presence in the workplace and mobile working. It uses findings from the coronavirus pandemic and completed pilot projects to improve and institutionalize virtual, flexible collaboration at Evonik. In 2021, we started to drive forward the lasting implementation of new ways of working. The goal is intelligent linking of remote and mobile working. In addition, it will bring cost savings by reducing the need for office space and business trips. This should also help improve Evonik's ecological footprint in the future.

Flexible worktime models

for **>95%** of our
employees worldwide

To institutionalize virtual and flexible collaboration at Evonik, we have adopted rules for various regions, taking into account the local framework. For example, we have defined the scope of technical equipment, which activities are suitable, and the extent to which flexible working is possible. In Germany, employer and employee representatives have set the necessary framework for this form of hybrid working by agreeing a general works agreement and an agreement with the executive staff council. For employees and managers, a process has been put in place for evaluation and definition of the scope and type of mobile working on an individual basis and at departmental level. We will be implementing #SmartWork in Germany as soon as the pandemic permits the ending of the present occupational safety regulations.

Leveraging virtual collaboration to shape our working world with #SmartWork

-  Intelligent linking of virtual and mobile working
-  Changed business travel behavior
-  Adapted use of office space

Community Management@Evonik

During the coronavirus pandemic, our employees were able to share their experience via the #ReThink forum in Connections, our internal social media network. Visits to this forum increased by 1.4 million (55 percent) compared with 2020, showing that the trend to digital collaboration is continuing. Advice and learning offerings from Community Management support new communities. In 2021, our Community Management activities received several honors, including first place in the German Online Communication Awards in the category internal & change communication.

well@work

Alongside work-life balance, the focal areas of our in-house well@work initiative are exercise, nutrition, and, since 2021, mental fitness. A wide range of offerings at our sites, supplemented by group-wide digital programs, foster the physical and mental fitness of our employees. The new mental fitness focus provides support for employees who are suffering anxiety, fear, or mental stress. The aim is to increase general resilience.

In Germany, all 19,347 employees, including our 14,350 male employees, have a statutory right to parental leave. 740 employees took parental leave in 2021. Men accounted for around 47 percent of the total. In 2021 they took an average of 1.7 months parental leave, while female employees took an average of 6.7 months. In the reporting period, 545 employees returned to work after parental leave. The proportion of male employees returning was just under 60 percent. Apart from a few exceptions,

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Appeal as an employer



all employees who returned from parental leave in 2020 were still working for us a year later. As of December 31, 2020, there were 279 employees on parental leave. 192 of them (including 23 men) returned to work in 2021. That was around 69 percent. 76 of the employees who did not return to work in 2021 were still on parental leave at year-end 2021. The proportion remaining in the company is therefore over 96 percent.

 102-8, 102-41, 401-2, 401-3

Worktime models

The regular, contractually defined working hours for more than 74 percent of our employees are based on collective agreements. We limit employees' working hours to 48 hours a week unless shorter working hours are applicable. Nearly 79 percent of our employees benefit from annual vacation rules that exceed the statutory provisions in their country. Since there is no statutory ruling in the USA, the situation there is based on regional custom.

Some employees ask about the possibility of taking paid or unpaid leave for an extended period, for example, to enhance the compatibility of private and professional phases in their lives. However, interest is very low. In percentage terms, it is in the low single-digit range, based on our total headcount.

About 93 percent of our 33,004 employees have full-time jobs and 7 percent work part-time. 8,575 employees are female. Around 80 percent of them work full-time, compared with 97 percent of male employees. Nearly 10 percent of employees in the Europe, Middle East & Africa region take up the option of working part-time to balance work and private life. By contrast, this option is hardly used in other regions because it has no social relevance there. [102-8, 102-41, 407-1, 408-1, 409-1](#)

Ability to take extended periods of leave^a

T22

	Employees in %
Europe, Middle East & Africa	94
Asia-Pacific	83
Central & South America	100
North America	93

^a Option to take paid or unpaid leave for more than three months.

Generation pact and long-term accounts

In response to demographic change, we introduced a generation pact in Germany in 2014. This enables people to retire far earlier and provides a basis for offering employment to qualified apprentices at the end of their training. Around 1,300 employees born between 1959 and 1964 have taken advantage of this since its introduction.

Since the collective agreement of 2019, there have been additional opportunities to make credits to the long-term account and occupational pension plan. The long-term account offers the scope to retire at an earlier age. Around 50 percent of employees in Germany have made use of this scheme since it was introduced.



The exhibition on the history of codetermination at Evonik was first presented in Darmstadt. Doris Elzenhöfer, deputy head of the corporate archive, introduced the exhibits.

Trustful collaboration

Trustful collaboration between representatives of the management and the workforce is an important success factor for Evonik. It takes account of operating conditions and the laws applicable in the various countries. To mark the 100th anniversary of the introduction of legislation on works councils in Germany, in 2020 Evonik asked the corporate archive to publish a book on codetermination. In this way, Evonik highlighted the value of codetermination for economic prosperity and social cohesion. In September 2021, employees at our site in Darmstadt (Germany) were able to visit the associated exhibition, which shows that the exemplary codetermination culture at Evonik has a long tradition. There are plans to show this exhibition at further sites in 2022.

Demographic development at our plants also affects codetermination and requires strategic planning of successors. In 2021, the Group Works Council therefore introduced a talent program to prepare members of the works councils for future leadership

EMPLOYEES

Appeal as an employer

roles in codetermination bodies by offering them skills in representing employees, negotiating and networking.

In Germany, the fundamental rights of our employees and their representatives to be consulted are anchored in statutory regulations such as the Codetermination Act and legislation on executive staff councils. There are elected bodies representing our employees at all Evonik sites in Germany. Works councils represent exempt and non-exempt employees, while executive staff councils represent our executives. Timely discussion of all major changes with these bodies is ensured. This includes the processes relating to corporate reorganization and restructuring, as well as agreements on, for example, the introduction of short-time working or similar measures. These take place several weeks or months in advance, depending on the significance of the upcoming changes. During this period, written agreements may be made on the upcoming measures and their impact on our workforce.

[102-43, 402-1](#)

There are comparable rules on the type and scope of consultation and negotiation in many other regions where Evonik has employees. The information and consultation rights of employees on European cross-border issues are represented by the Evonik Europa Forum, which is composed of employer and employee representatives. At company level in Germany, employees' interests are represented by employee representatives on the supervisory board.

Evonik does not restrict employees' rights to freedom of association or the right to collective bargaining. These rights are also ensured in countries where freedom of association is not protected by the state. Based on our sites worldwide, there are employee representatives for around 95 percent of our employees.

[102-41](#)

Diversity and equal opportunity

As an international company, we see diversity as an opportunity. In our view, diversity is not simply a social or political obligation. We see it as a key to business success.

Strategy and management

Evonik does business in many markets worldwide. Diversity is therefore normal in our business activities. Employees with different backgrounds and personalities enrich our teams and our company. Diversity enhances Evonik’s creativity, innovative capability, and proximity to customers. Therefore, we raise employees’ awareness of the importance of diversity through our corporate media and regular campaigns. These measures include a podcast by the chairman of the executive board and impetus from our diversity and inclusion community and in the intranet.

Our diversity strategy is derived from our corporate strategy. Diversity is a firm element of our corporate values, our working principles, and, since 2020, the Evonik competency model. The parameters we use to manage diversity often exceed the legal requirements. We inform all employees about the present situation in an annual diversity report, and the executive board receives quarterly information on the development of important diversity indicators.

The role of the diversity council is to make sure that diversity is a success factor that is deeply embedded in our organization and drives it forward through cross-business criteria. It comprises the

members of the executive board, the heads of the divisions, and representatives of the regions and corporate functions. Since May 2020, the global implementation of the measures adopted by the diversity council has been supported by three diversity panels for processes, regions, and communication. Through its Diversity & Inclusion department, the Talent Management function supports the establishment of diversity and inclusion throughout the Evonik Group.

All measures to ensure diversity take a holistic approach. We address this issue from strategic, cultural, and process perspectives. By strategic, we mean our executives systematically set an example of diversity and manage it through indicators in the dimensions experience, age, training, nationality, and gender. We also take into account different mentalities and perspectives arising, for example, from religious convictions and sexual orientation. We integrate diversity into our HR processes and measure its day-to-day implementation in the Evonik Group.

We have set specific targets for dimensions where we want to improve, currently gender diversity and intercultural mix.

1. Age/generations

We foster cross-generational collaboration in our teams and place special importance on maintaining mental and physical health (see “well@work initiative” p.98). Examples are the Fit for Life program and support for employees who care for relatives. Other offerings include LILY (Learning and Individualized Library) for lifelong learning. Our reverse mentoring offers different generations an opportunity to learn from one another and actively advance diversity at Evonik.

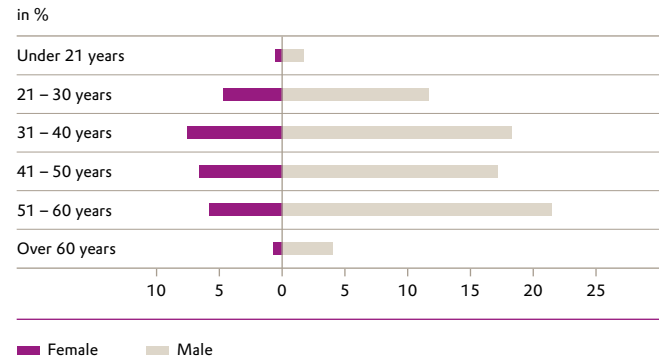
EMPLOYEES

Diversity and equal opportunity

In 2021, the average age of Evonik employees was 43 years. 46 percent of new hires (946 employees) were under 30. 47 percent were in the 30- to 50-year age group (982 employees). 7 percent of new hires (153 employees) were over 50.

Age structure in the Evonik Group 2021

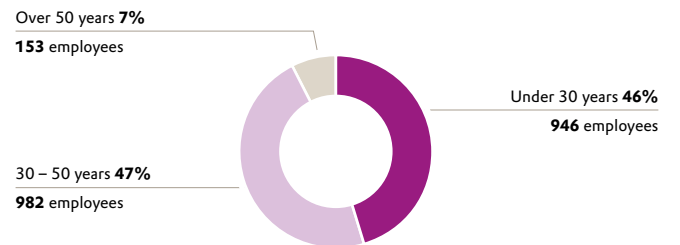
C32



External hires by age 2021

401-1

C33



2. Competencies and experience

In line with our corporate purpose, we foster cross-functional collaboration. We network competencies and perspectives. Diversity and opportunities to use various learning formats are presented to new employees at virtual onboarding events or as part of the Evonik Starting Kit. Other offerings include learning journeys, reverse mentoring, and diversity BarCamps.

3. Gender

We aim to increase the proportion of women in our company worldwide and at all levels. The following table provides an overview of our targets:

Diversity targets: Gender 405-1 T23

in %	Diversity targets 2023	Status 2021
Executives ^a	23	17.7
Senior management ^b	23	17.6
Other management levels ^c	30	28.7

^a Executives = executive functions, i.e., top management functions in the Evonik Group.
^b Senior management = senior management functions, i.e., key functions in the segments, regions, service units, and corporate divisions.
^c Other management levels = further management functions.

We take equality of opportunity very seriously in the recruitment of new employees. As a guide, we use the proportion of women studying the disciplines that are relevant for us. Our objective is for women to make up around 40 percent of new management employees.

An extensive range of measures supports the attainment of our gender targets. They include offers to help employees combine working and family life, such as childcare, vacation programs for



Evonik sees diversity as an opportunity and central to business success. Diversity and inclusion were discussed in the reporting period and presented as part of an Instagram takeover.

kids, and a regular get-together for parents. We also offer our employees networks such as GroW, an internal network for female employees, and our job-sharing platform.

Evonik supports social impetus for equality and takes part in the “Chefsache” network in Germany, which aims to achieve a gender balance between men and women in leadership positions. We were also the first specialty chemicals company to join Femtec, the international university careers network for women. Femtec focuses on fostering young female employees and talents in STEM professions—science, technology, engineering, mathematics, and IT.

In 2021, we incorporated diversity criteria into the performance appraisal of our employees for the first time. Incorporating

EMPLOYEES

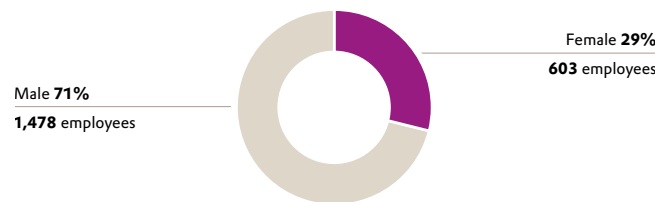
Diversity and equal opportunity

diversity is a newly defined leadership criterion to drive forward our diversity goal.

At present, women make up 26 percent of our workforce (8,575 employees), and men make up 74 percent (24,429 employees). In 2021, 29 percent of external hires were female (603 employees), and 71 percent (1,478 employees) were male. We are seeing positive effects, especially among younger age groups. In the under-40s age group, the proportion of female employees in management is now nearly 37 percent. That is an improvement of 9 percentage points compared with 2011.

External hires by gender 2021

C34



Overall, the proportion of female employees in management functions increased from 17 percent in 2011 to 28 percent in 2021.

Percentage of women in management

T24

in %	2011 ^a	2020	2021 ^b
Executives	8.2	15.9	17.7
Senior management	8.1	14.2	17.6
Other management levels	17.8	27.1	28.7
All management functions	16.6	26.1	27.9

^a Including the methacrylates business.
^b As of December 2021, allocation to management functions reflects the target group of the position, rather than personal grade as in the past.

4. Intercultural mix

#TogetherAsOneEvonik stands for Evonik’s commitment to fairness and diversity and the rejection of hatred and discrimination. Our business council has set up a task force in North America to develop short- and long-term measures. These range from support groups for members of social minorities in the workforce, through diversification of procurement, to organizing a diversity BarCamp. Since 2021, every Evonik employee in the USA and Canada has been given an additional free day for reflection. The aim is to work out proposals on how to put our corporate values of openness and trust into practice even more effectively in the workplace. One outcome of this initiative was the establishment of a diversity steering committee, which conducted an employee survey on diversity in January 2021. The issues identified led to the creation of several employee networks such as the Employee Resource Group for Black Professionals & Their Allies and an LGBTQ community. In addition, our employees and managers are offered training on human rights and inclusive leadership teams.

Diversity targets: Intercultural mix^a

T25

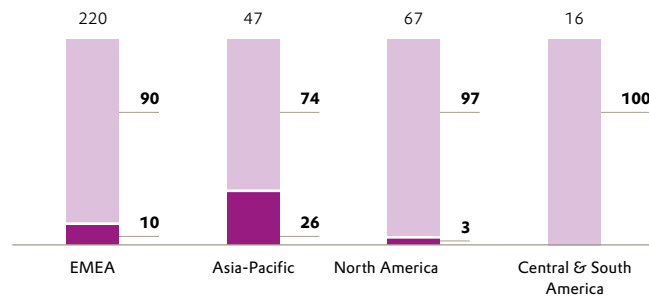
in %	Diversity targets 2023	Status
Executives	20	14.6
Senior management	35	25.0

^a Employees whose nationality is not German.

Evonik currently employs people of 106 different nationalities at 208 sites in more than 53 countries. Around 45 percent of employees in management functions are not German citizens. Group-wide, the proportion in senior management positions is around 25 percent. Chart C35 covers all management levels, i.e., executives, senior management and other management levels. The major sites are our ten largest locations in each region.

External management hires by region 202-2

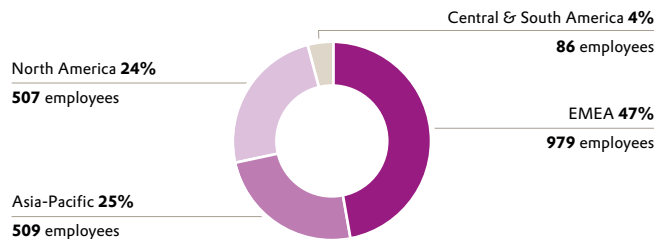
C35



Local: Manager’s nationality corresponds to the location of the operation.
Global: Manager’s nationality differs from the location of the operation.

External hires by region

C36



Discrimination

Our code of conduct and global social policy forbid discrimination on the basis of ethnic origin, skin color, religion or beliefs, age, gender, sexual identity, physical constitution, appearance, or other attributes that are protected by law. Employees who feel they have been discriminated against have a right to lodge a complaint via our (anonymous) whistleblower system, which can be accessed both internally and externally.

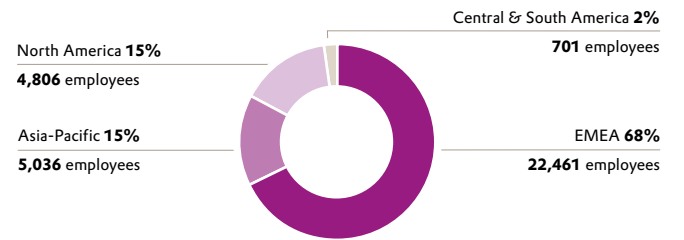
EMPLOYEES

Diversity and equal opportunity

Information on complaints procedures is available to all employees via internal media and personal discussions in all regions. We have established training and awareness-raising measures to prevent discrimination. They include training modules on our code of conduct and global social policy as an integral part of our human rights training. These reach over 91 percent of our workforce.

Employees by region

C37



One case of discrimination in Brazil was reported to us anonymously via the whistleblower system in 2021. Our investigation did not generate any findings, and it was not possible to contact the anonymous whistleblower. Seven cases of discrimination were reported to us in the USA. Evonik investigated all of them and took action to eliminate them. 406-1

Integrating people with disabilities

The employment and inclusion of people with disabilities is another way in which we embrace diversity. We focus on providing a working environment where every individual can use their personal strengths optimally for the development of themselves and the company. Evonik was the first company in the sector to sign a policy on occupational inclusion in the chemical industry. Based on this, we want to achieve a better understanding of the needs of people with disabilities and continue to address the future challenges of inclusion in our company. In the reporting period, employees with disabilities accounted for 8.4 percent of Evonik’s workforce in Germany.

Vocational training and continuing professional development

Well-trained employees are a key success factor in competition. Our learning strategy and personnel development programs focus on future business needs.

Strategy and management

Our training and continuing professional development activities comprise further training of our employees and vocational training for people at the start of their career. Evonik has a global learning strategy developed together with our employees. Considerable progress with this was made in 2021. The central elements of our learning strategy are:

- Uniform global solutions for training and personnel development, with digital self-directed learning content
- Simplifying the offering of digital learning platforms
- Increasing the acceptance of self-directed digital learning and lifelong learning

The learning and individualized library (LILY) gives our employees access to a wide range of learning journeys and digital content for self-directed learning. The global development portal provides a transparent overview of our continuing professional development offerings and our learning and development strategy. Both platforms are available to all employees worldwide, providing they have the appropriate IT infrastructure and intranet access. A distinction by gender or employee category is not relevant for us. Our FutureZone learning platform administers the participation of employees in mandatory training and e-learning sessions and notifies them of the need to complete them. We measure our

success in implementing our learning strategy by the number of active participants, their average learning time, and the total number of people registered to use LILY. [📍 404-2](#)

The alignment of our vocational training strategy to ensure the recruitment and development of young people in line with our needs, which started in 2016, has now been completed. With around 1,100 apprentices, we consider that we are well-prepared for the challenges of demographic change and the associated reduction in the availability of qualified employees for production and related areas. To retain young people in the company, since 2019, all apprentices who are able and willing to take up employment have been offered jobs. The number of additional apprentices being trained in cooperation with other companies remained constant at around 430.



Young apprentices learning to use a CNC lathe in the training workshop at Evonik's site in Marl (Germany).

EMPLOYEES

Vocational training and continuing professional development

Our activities in 2021

In 2021, Evonik trained more than 1,550 young people at 16 sites. Our vocational training offering comprised more than 24 recognized courses and combined vocational training and study programs.

Apprentices accounted for 5.8 percent of our workforce in Germany, which is still well above the national average of around 5 percent in the both the chemical sector and industry. Overall, we invested around €62 million in vocational training. Our high commitment to vocational training is also reflected in their examination results: The percentage of apprentices who passed their examinations was comparable with the previous years at around 99 percent.

The "Start in den Beruf" pre-apprenticeship program has proven very effective preparation for youngsters who are not yet ready for a vocational training course. In the 2020/2021 project year, we offered an additional 16 places in this program, bringing the total to 66. A further increase to 80 places is planned for the 2021/2022 project year. This complementary offering enables young people to gain an insight into the dual training system and the occupations available to help them make a career choice. This has been particularly important during the pandemic as it was not possible to organize internships for school students.

Despite the ongoing pandemic-related restrictions, all apprentices received solid training in 2021 and were prepared for their examinations. The provision of tablet computers, the progressive digitalization of learning scenarios in a special multimedia learning environment, and time spent working from home proved a good combination. From the start of the new training year, regular introductory events at our vocational training centers and external centers were held, taking the pandemic-related precautions into account.

We have added a new page for apprentices on our careers website. It contains a wide range of information on vocational training. Evonik received further awards for the systematic continuation of its vocational training activities. In a study of Germany’s best vocational training companies, Evonik was awarded first place in the specialty chemicals category, positioning it among the top 1 percent of vocational training companies in Germany—across all sectors, sizes of company, and organizational forms. In addition, we were again given a five-star rating by the business magazine Capital for our performance in dual vocational training and combined vocational training and university courses.



In the reporting period, Evonik invested around €338 per employee in training and continuing professional development. That was a total of €11.17 million. Due to the pandemic, it was still not possible to run most face-to-face training sessions in 2021. Compared to the previous year, the CPD market increased online training, live virtual training sessions, and digital self-learning. We adapted our CPD offering accordingly and noticed a slight rise in learning time.

Personnel development focuses on integrating learning into the workplace. Since April 2021, we have provided our executives with digital learning content relating to our day-to-day business via our LeaderShop. We have also completed the revision of our personnel development offering for new managers. This includes multi-month “development journeys,” comprising a blend of self-learning phases, groupwork, online seminars, and face-to-face sessions. This format got off to a very successful start in Germany, China, the USA, and Brazil. 🌐 404-2

We have also developed “learning journeys”, together with the specialist departments. The focus here is on shared learning, networking, and enhancing digital skills. Our Accounting Potentials program received the international Brandon Hall Silver Award in the category Best Use of Social Collaborative Learning.

The online learning units offered as part of the Evonik learning sessions were very popular, reaching more than 30,000 participants in Europe and North America in 2021.

On average, each employee with the corresponding IT infrastructure used digital learning formats for 5.41 hours. 🌐 404-1



EMPLOYEES

Our targets

Our targets

Below is an overview of the targets set for our employees area of action.

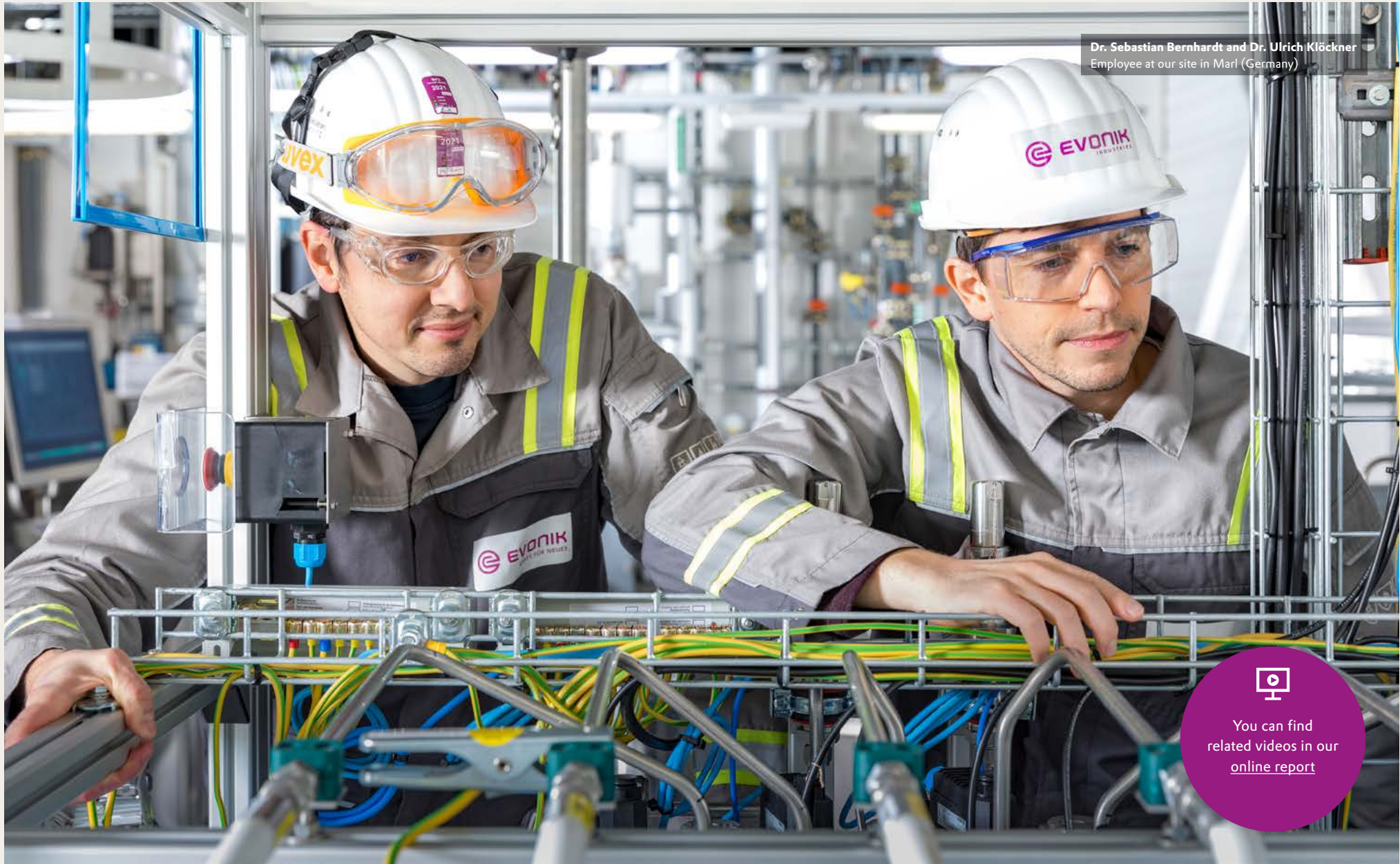
Target attainment in 2021

- Proportion of women in top and senior management should be 23 percent at each level by 2023 (status 2021: 17.7 percent and 17.6 percent)
- Intercultural mix at executive level should be 20 percent by 2023 (status 2021: 14.6 percent)


Targets for 2022 and beyond

- Proportion of women in top and senior management should be 23 percent at each level by 2023
- Intercultural mix at executive level should be 20 percent by 2023

- Target not achieved
- Target partially achieved or target horizon extends beyond 2021
- Target achieved



Dr. Sebastian Bernhardt and Dr. Ulrich Klöckner
Employee at our site in Marl (Germany)


You can find related videos in our [online report](#)

Safety ✓

Safety has priority over sales and profits at Evonik. We have a long-established safety culture that allows continuous improvement of our systems and processes. Protecting the health of our employees is also very important to us.

SDGS OF PARTICULAR RELEVANCE FOR EVONIK



KEY TOPICS

- Occupational safety
- Plant safety
- Health protection and promotion
- Transportation safety/logistics

0.19

Accident frequency
(number of accidents per
200,000 working hours)

0.48

Incident frequency
(number of incidents per
200,000 working hours)

5.6

Occupational
health performance index





SAFETY

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108	Occupational safety	📍 102-11, 102-13, 102-43, 403-1, 403-2, 403-4, 403-5, 403-7, 403-8, 403-9
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Safety

Protecting the health, safety, and employability of our employees and preventing accidents and incidents at work, in the operation of our production facilities, during transportation, and on the way to and from work are of central importance to Evonik. That is also reflected in the UN Sustainable Development Goals (SDGs) of relevance to Evonik.

Strategy and management

The group-wide management of occupational and plant safety at Evonik is based on global policies, processes, and systems, which are an integral part of our integrated management systems. Implementation of the applicable regulations is monitored using centrally planned audits, which are performed in close consultation with our divisions and external certification bodies. Steering bodies at group level aim to ensure that mission-critical processes are standardized for all divisions (see “The environment” [p. 75](#)). Requirements and the need for action are defined in binding targets based on performance indicators. The frequency and severity of accidents are also reflected in the variable remuneration of the executive board.

In the reporting period, we updated our ESHQE¹ management handbook. This focuses on the environment, safety, health, quality,

SAFETY

Safety

and energy and is geared to continuously optimizing our processes, plants, products, and services.

The Safety at Evonik initiative has been developed into a group-wide management approach to implement a safety culture in all areas of occupational and transportation safety. It defines binding principles of action that give our managers and employees, including personnel from staffing agencies, reliable guidance on safety-compliant conduct in their daily work. In 2021, this safety culture initiative was supplemented by the Safety at Evonik 2025 program, and the planned activities were incorporated into a roadmap. Examples are our safety climate survey and life-saving rules. [📍 102-43](#)

To make our safety management measures directly comparable with common international practice, in the reporting period we altered the indicator for reporting workplace accidents from 1 million working hours to 200,000 working hours.

The accident frequency indicator for contractors' employees was also altered to 200,000 working hours. [📍 403-9](#)

Since 2021, plant safety has been evaluated using lower thresholds.² Incidents at our production facilities are now also reported on the basis of 200,000 working hours, compared with 1 million working hours in the past. That is in line with the present Cefic³ definition. The more detailed recording and evaluation of incidents permit a deeper understanding of the scope for improvement.

¹ ESHQE = Environment, Safety, Health, Quality and Environment.

² The new volume thresholds are 1/10/100 kg depending on the hazard class, compared with conventional thresholds of 5/100/2,000 kg.

³ European Chemical Industry Association (Cefic).

Our crisis and incident management are designed to prevent and limit the damage if accidents nevertheless happen. We analyze incidents systematically so we can learn from them and further optimize our safety performance. We share the findings within the company via our ESHQ Global SharePoint. The formats used for this are our safety flyer and safety moments. To build and share experience, we also participate in various national and international networks. [403-5](#)

In the areas of health protection and health promotion, we concentrate on an integrated, holistic approach. The aims are to maintain or enhance the wellbeing of our employees and their employability. In view of the coronavirus pandemic, this was a particular area of focus in 2021 [\(p. 109\)](#).

Safe transportation of goods is very important for Evonik. We use a uniform process to select the logistics service providers for transportation and regularly review their reliability. In keeping with our understanding, this includes evaluating the Responsible Care® performance of all transportation providers. Our aim is to minimize risk at all stages, from loading through transportation to unloading.

Our activities in 2021

We continued to roll out our global ESHQ software ESTER (Evonik Standard Tool ESHQ and Reporting) to all production sites in the reporting period, with the worldwide introduction of three modules: incident management, hazard assessment, and management of change. ESTER will harmonize processes throughout the Evonik Group, make workflows leaner, and systematically broaden our database in order to evaluate and improve our safety performance. For example, from January 2022, the ESTER module incident management will replace

group-wide incident reporting via SuRe. This should greatly speed up the availability of data.

ESTER targets

C38

<p>Target 1 Group-wide ESH software</p>	<p>Target 2 Replace many IT solutions</p>
<p>Target 3 Improve ESH performance</p>	<p>Target 4 Reduce the time and expense for ESH</p>

Occupational safety

We pay special attention to occupational safety, which includes both safety on the way to and from work and the safety of contractors' employees working at our sites.

Strategy and management

The key performance indicator for occupational safety at Evonik is accident frequency. In 2021, we achieved our target of remaining below the defined maximum accident frequency¹ rate of 0.26 for Evonik employees². This indicator remained at a low level of 0.19³, helped by the fact that many employees were working from home due to the coronavirus pandemic.

[403-1, 403-4](#)

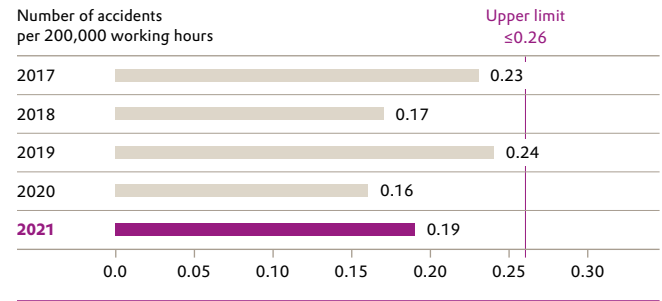
SAFETY

Occupational safety

Our sites in Central & South America did not report any accidents in 2021.

Accident frequency indicator

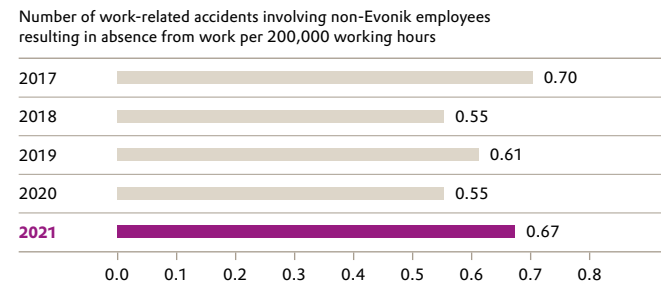
C39



The accident frequency rate^{1,4} for contractors' employees was 0.67, which was above the previous year's rate (0.55). Most of the rise was due to accidents caused by workers tripping, slipping, or falling. [403-9](#)

Accident frequency indicator, contractors' employees^a

C40



^a Calculation based on assumptions and estimates.

¹ This indicator contains all reported work-related accidents (excluding traffic accidents) resulting in absences of at least one full shift per 200,000 working hours.

² Evonik employees including employees from staffing agencies.

³ The total number of hours worked by Evonik's employees in the reporting period was around 65 million hours.

⁴ The method of calculating working hours was changed in 2019.

There were no fatal accidents at our sites or on the way to or from work involving our employees or contractors' employees in 2021. Moreover, there were no serious accidents involving our employees or contractors' employees. However, there were two accidents resulting in more than six months' absence from work.

Plant safety

Safety is part of our DNA: It is the basic precondition for the operation of our facilities and their performance.

Strategy and management

Plant safety is the basis for reliable, effective, and future-oriented production. We set demanding safety standards for the entire life cycle of our plants worldwide. We regard safety as an all-round task, which is established worldwide through our safety management systems and regularly reviewed.

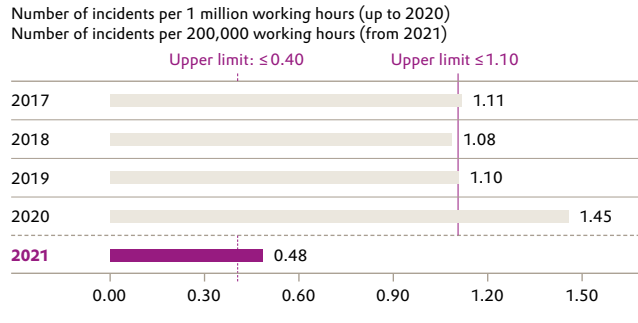
The key performance indicator for plant safety at Evonik is incident frequency. We monitor the number of incidents involving the release of substances, fire, or explosion (process safety incidents, PSI) in line with the Cefic definition. [403-1](#)

Our incident frequency rate was 0.48 in the reporting period, so we failed to meet our target of remaining below the upper limit of 0.40. This was due to the lower threshold for recording

incidents ([p.107](#)), which is reflected in an increased number of incidents.

Incident frequency indicator^a

C41



^a 2018-2020 in accordance with Cefic 2011, from 2021 in accordance with Cefic 2016.

We work steadily to optimize our safety management system. In 2021, we realigned our expert circle on plant safety to consolidate the responsibilities of the various bodies and reduce internal interfaces. The global structure of the expert circle, which includes representatives of our divisions and regions, gives us a holistic perspective on plant safety issues. The expert circle completed its first projects in the reporting period, including leading indicators for plant safety performance. We also analyzed experience from process safety studies in recent years. This was used to improve the relevant group-wide standards.

SAFETY

Plant safety
Health protection and promotion

Health protection and promotion

Global management of health protection and promotion at Evonik takes a long-term, holistic approach, covering employees, the working situation, and the general working environment.

Occupational health protection was again confronted with special challenges in 2021 as a result of the COVID-19 pandemic. There were pandemic plans in place at all sites worldwide. The steering bodies were active at group, regional, and site levels. The Evonik steering committee issued binding global instructions for the Evonik Group. Based on these, local committees defined measures aligned to their situation. In Germany, the works agreement on COVID-19 concluded with representatives of the workforce was adapted many times, and new aspects were added.

Through the defined measures, combined with systematic and extensive case and quarantine management, we were largely able to avoid infection chains and clusters at our sites. Differentiated reporting and regular conference calls ensured good communication between the various steering levels. A hotline was set up for employees. In addition, extensive information on the pandemic was provided in the intranet, along with support offers. We used our #TogetherAgainstCorona and #MaskUpAndCarryOn campaigns to appeal to our employees to continue to act responsibly to protect themselves and others.

Strategy and management

Our approach to health protection and promotion includes high-quality medical care as required, applying ergonomic and health-related measures to structure working conditions and an emergency management system at plant level. Our aim is to meet all statutory requirements on occupational health and safety. In addition, we offer a range of voluntary measures to foster the health of our employees. These are bundled in the group-wide well@work initiative. In this way, we help our employees adopt a healthy lifestyle. Our health protection and promotion measures are also available to employees from staffing agencies.

📍 403-1, 403-3, 403-4, 403-5, 403-7

The most important goals and aspects of our occupational health strategy are outlined in the Evonik Global Health Program. We use this as the basis for refining our strategy and adapting it to the latest developments. The main challenges identified for the period 2020 through 2025 are the aging workforce, the global increase in mental health problems, and changes in the working world due to digitalization and Work 4.0. From these, we have derived priorities for our occupational health activities. Our Occupational Health Management policy sets binding worldwide standards for health protection and promotion at Evonik. 📍 401-2

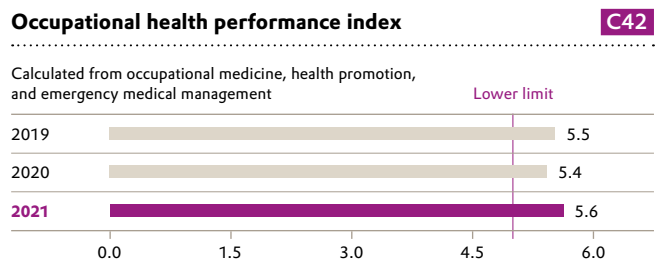
In Germany, issues relating to occupational safety and health protection have to be agreed with the employee representatives. Taking this as our basis, we have worked out policies for our global workforce.

In line with statutory requirements, at our German sites we have occupational safety committees that meet at least four times a year to discuss issues relating to occupational safety and the protection of health. These committees are composed of employee and employer representatives, safety specialists, safety officers, and occupational medicine specialists. They cover more than 99 percent of our employees in Germany. There are also comparable bodies at sites outside Germany. 📍 403-8

Fulfillment of the relevant requirements is monitored through internal and external environment, safety, and health audits and an extensive occupational health and safety reporting system. Action is taken if there are indications of scope for improvement or deviations from the applicable guidelines. Where necessary, we suggest or require improvements. As an overriding indicator, we have established an occupational health performance index.

Occupational health performance index

This index shows the extent to which internal requirements have been implemented and goals achieved. It enables us to measure progress in the area of occupational health and drive forward targeted improvements.



SAFETY

Health protection and promotion

The index is calculated from two parameters from each of the following areas: occupational medicine, health promotion, and emergency medical management. Both the quality and the scope of the measures are taken into account. The index is calculated annually. In 2021, it covered 95 sites and 89 percent of Evonik employees.

We have defined a target of ≥ 5.0 for the occupational health performance index. In 2021, the index was 5.6 (maximum: 6.0).

For Germany, we also calculate a health ratio, which was 95.4 percent in 2021 (2020: 95.2 percent). This is the ratio of target working hours less sickness-related hours lost to target working hours.

Emergency medical management

Evonik’s Medical Incident and Emergency Management standard defines binding basic requirements for emergency medical management at all sites worldwide. The exact equipment and human resources required depend on production-related risks and the availability and quality of local medical infrastructure.

Specific procedures have been defined for accidents where employees come into contact with chemicals and require special medical treatment. Emergency medical management also includes pandemic plans and regular training exercises. An extensive preventive health and risk management program is in place for employees on business trips and foreign assignments.

Workplace-related preventive healthcare

The results of our hazard assessment help us proactively implement suitable preventive measures to avoid work-related illnesses and health problems. Where we identify a risk for specific employees, technical and organizational measures to counter the risk have priority over the use of personal protective equipment. Information and training of employees also play an important part in avoiding health impairments. Such training is mandatory for all employees worldwide. Preventive healthcare includes providing advice for employees on their individual health risks and preventive check-ups where necessary. The medical data generated in this process are subject to medical confidentiality and are protected and archived in accordance with national data protection regulations.

📍 403-2, 403-5, 403-7

Evonik regularly reports on occupational illnesses. The indicator used for this is the occupational disease rate (ODR), which is defined as the number of newly identified cases of occupational illnesses per 1 million working hours. The calculation includes all cases recognized in the reporting period, including latent illnesses, which are illnesses where the causes lie well in the past. There were 31 in 2020. The main causes of occupational illness at Evonik are exposure to asbestos and noise. Exposure to asbestos relates to the period prior to 1993, the year Germany banned the production and use of asbestos. Our occupational safety measures endeavor to minimize the risks of sustaining an occupational illness. In view of this, the risk for our employees and contractors' employees working under Evonik's direct supervision is very low. In the reporting period, there were no reported deaths of members of our active workforce as a result of work-related illness.



Launch of the coronavirus vaccination drive at Evonik's Goldschmidtstrasse facilities in Essen (Germany).

The ODR for 2021 will probably be available in spring 2022 and will be published on our website. In 2020, the ODR for the Evonik Group was 0.47. All new occupational illnesses reported in Germany and North America are included. The ODR was 0.74 for Germany and 0.31 for North America. The calculation of the ODR does not include contractors' employees as we do not have access to such data due to data protection regulations. 📍 403-10

Corporate health promotion

Our well@work program centers on three aspects: exercise, a healthy diet, and work-life balance. Mental fitness was added as a new aspect in 2021. Corporate health promotion has a firm place in these activities. Evonik uses basic programs with a long-

SAFETY

Health protection and promotion

term focus to encourage employees to adopt a healthy lifestyle. These are supplemented by changing annual health campaigns. At all of our German sites, there are interdisciplinary health task forces to implement well@work. The Care & Support program in Germany enables employees to contact the company medical service with private medical questions. They are given advice and support. In the event of illnesses requiring treatment, they are referred to their general practitioner or a specialist physician.

📍 403-6

In 2021, we again focused on topics of particular importance during the pandemic. Alongside the coronavirus vaccination campaign and our global influenza prevention campaign, we provided advice on ergonomics and healthy eating for employees working from home, online exercise sessions to encourage activity during lunch breaks, and online seminars on stress management during the pandemic. We greatly extended our occupational health promotion program to keep employees healthy all year round by adding online offerings. In the spring, we launched Tour de Evonik, an eight-week global challenge where employees could take a virtual trip from Rosario in Argentina to Tokyo in Japan, getting to know Evonik sites and colleagues along the way. More than 5,000 employees in 50 countries took part in this global health campaign. Maintaining the long-term employability and wellbeing of our employees is also at the heart of our fit-for-life seminars, which normally run over several days. We were once again unable to hold these seminars in 2021 because of the pandemic.

Worldwide, around 97 percent of our workforce can seek advice on workplace-related, personal, or family problems from social and employee counseling centers.

Transportation safety and logistics

Our aim is to minimize risk at all stages, from loading through transportation to unloading. We take special care when shipping dangerous goods. Moreover, our safety standards for especially dangerous products and raw materials go beyond the regulations for such substances.

Strategy and management

To support safe transportation by logistics partners, the use of requirements profiles for logistics service providers, collection by customers, and warehouse service providers is common practice at Evonik in Europe. In addition to quality management, the specific aims of these profiles are to ensure safety, make sure loads are properly secured, and take environmental and sustainability aspects into account in the transportation of chemicals.

Outgoing shipments of hazardous goods^a

T26

in thousand metric tons	2020	2021
Air	0.5	1.0
Ocean	577	612
Inland waterway	927 ^c	1,163
Rail	682	745
Pipeline ^b	675 ^c	798
Road	1,873	1,901
Total	4,735	5,219

^a Excluding goods collected by customers.

^b External shipments only.

^c Corrected data.

Outgoing shipments of other goods^a

T27

in thousand metric tons	2020	2021
Air	3	8
Ocean	1,210	1,292
Inland waterway	30	26
Rail	188 ^c	193
Pipeline ^b	7 ^c	7
Road	2,008	2,176
Total	3,445	3,702

^a Excluding goods collected by customers.

^b External shipments only.

^c Corrected data.

Our activities in 2021

Evonik pressed ahead with digitalization in the fields of transportation safety and logistics in the reporting period. In this way, we are making a contribution to sustainability and green logistics. In 2021, we launched Gate5, a project geared to smooth and efficient traffic management to safeguard supply at our site in Marl (Germany). Measures include camera-based tracking of parking violations at the parking lot for haulage contractors, replacing manual processes with digital solutions (self check-in and check-out terminals with scanner and printing functionalities), and updating the weighing system, including extended control options.

At our site in Antwerp (Belgium) we are installing the LUNa loading and unloading app to minimize manual data transfer and replacing it with standardized, digitalized checks and checklists. This should avoid delays and increase transparency.

SAFETY

Transportation safety and logistics

Evonik continued its strategic focus on intermodal shipment of packaged goods across Europe in the reporting period. Intermodal transportation allows an optimal combination of long-distance shipment by rail, ocean or inland waterway with road transportation at the start and end of the journey. Our logistics procurement departments are expanding business relationships with the market-leading supplier. Within the sector, we are playing a pioneering role in the use of intermodal transportation models.

Significant avoidance of CO₂

In line with our transportation strategy, wherever possible, we are switching from road to rail, for example, for shipments to Turkey. This has a range of environmental benefits such as reducing carbon, particulates, nitrogen oxide emissions, and consumption of diesel fuel. As a result, Evonik has avoided around 2,110 metric tons of CO₂ emissions in the past ten years.



Wherever possible, Evonik transports goods by rail instead of road to play its part in reducing CO₂ emissions.

The rollout of DRUMGUARD® for securing loads continued in the reporting period. DRUMGUARD® comprises two components and is therefore far easier to use than conventional straps and shrink-wrap film. This reusable system replaces non-reusable plastic or metal materials. 100 percent of the agreed contingent of this system was taken up in 2021.

A network for environment-friendly hydrogen

In the reporting period, Evonik won the European Responsible Care Award in the category En route to climate neutrality for the Get H2 Nukleus project (p.24). This award is presented annually by the European Chemical Industry Association (Cefic). Together with our project partners, we want to set up the first publicly accessible hydrogen infrastructure. Get H2 Nukleus is providing the infrastructure to connect the production of green hydrogen to industrial customers in the German states of Lower Saxony and North Rhine-Westphalia. The approximately 130 km network from Lingen to Gelsenkirchen is expected to be the first hydrogen network with non-discriminatory access and transparent pricing. Green hydrogen is regarded as a source of hope for the energy



transition. The basic idea is the conversion of electricity from renewable sources into hydrogen for use as a carbon-free source of energy for industry and other sectors.

New shipping regulations for polymerizable substances

Since the new regulations for polymerizable substances took effect in 2017, some producers have had problems with acceptance by shipping operators. So far, none of our shipments of polymerizable substances have been rejected thanks to a variety of measures, including documents confirming that our substances have adequate stability throughout transit. As a result of supply chain bottlenecks, especially in ocean freight, and the related increase in transit times, some shipping companies have become concerned that there is a higher risk that the stabilization of such substances could fail. Evonik has conducted tests on this for a number of years and is working with national and international associations to show that this group of substances can be transported safely by ship.

We evaluate accidents in the shipment of goods using the criteria set out in section 1.8.5 ADR¹. The aim is to increase transparency and align Evonik to this international standard. No reportable incidents involving dangerous goods listed in section 1.8.5. ADR occurred in the reporting period.

SAFETY

Our targets

Our targets

Below is an overview of the targets set for our safety area of action.

Target attainment in 2021

- Accident frequency rate¹ of 0.19
- Incident frequency rate² of 0.48
- Occupational health performance index 5.6

Targets for 2022 and beyond

- Accident frequency rate¹ ≤ 0.26
- Incident frequency rate² ≤ 0.40
- Occupational health performance index ≥ 5.0

- Target not achieved
- Target partially achieved or target horizon extends beyond 2021
- Target achieved

¹ New reference parameter from 2021 aligned to international practice.

² Calculation modified from 2021.







¹ ADR = Accord européen relatif au transport international des marchandises Dangereuses par Route, english: European Agreement concerning the International Carriage of Dangerous Goods by Road.

Sustainability indicators for the Evonik Group

The following overview contains the main indicators for our six sustainability areas of action. You can find more detailed information in the relevant chapters.

Sustainability indicators 2021  201-1

T28

	2018	2019	2020	2021
 STRATEGY AND GROWTH				
Value added in € million	4,740	5,994	4,067	4,688
Women at the first management level below the executive board in %	27.3	26.1	26.9	26.9
Women at the second management level below the executive board in %	20.0	24.1	26.3	29.2
 GOVERNANCE AND COMPLIANCE				
Training rate ^a anti-money laundering in %	--	--	82	96
Training rate ^a antitrust law in %	74	82	88	83
Training rate ^a fighting corruption in %	83	91	88	92
Training rate ^a code of conduct in %	77	89	89	89
Internal investigations ^b	90	113	130	136
Disciplinary measures ^c	106	60	110	152
 VALUE CHAIN AND PRODUCTS				
Procurement volume in € billion	9.9	9.4	8.0	10.4
Production output in million metric tons	11.03	9.16	8.93	9.54
Use of renewable resources in production in %	9.7	7.9	8.5	9.7
Raw material suppliers covered by TfS assessments ^d	--	66	73	69
No. of sustainability audits (TfS)	358	309	258	284
No. of sustainability audits (Evonik)	22	26	31	16
No. of sustainability assessments (TfS)	1,491	1,043	1,148	1,345
No. of sustainability assessments (Evonik)	130	117	186	176
R&D expenses in € million	459	428	433	464
 THE ENVIRONMENT				
Scope 1 greenhouse gas emissions in million metric tons ^e	5.7	4.9	4.9	4.8
Scope 2 greenhouse gas emissions in million metric tons ^f	0.9	0.6	0.6	0.6
Scope 3 greenhouse gas emissions in million metric tons ^g	20.9	17.8	20.0 ^h	21.9
Reduction in greenhouse gas emissions (scope 1/2) in % ⁱ	-31	-42	-43 ^j	-43
 EMPLOYEES				
Early employee turnover in %	0.9	0.9	1.3	2.2
Continuing professional development per employee in hours ^k	16	8	12 ^l	5
Female managers in % ^m	24.3	25.2	26.1	27.9
 SAFETY				
Accident frequency ⁿ	0.87	1.18	0.80	0.19
Incident frequency ^o	1.08	1.10	1.45	0.48
Occupational health performance index ^p	5.5	5.5	5.4	5.6

^a The training rate is defined as the number of training candidates with a valid certificate relative to the total number of training candidates as of December 31, 2021.

^b From 2018, reporting extended to include all internal investigations in the Evonik Group.

^c In some cases, more than one measure was taken in connection with an investigation.

^d Annual procurement volume > €100 thousand.

^e CO₂ equivalents.

^f CO₂ equivalents, net (market-based).

^g CO₂ equivalents, differences in the totals are due to rounding differences.

^h Data corrected due to changes in the methodology and improved data availability

ⁱ Reference base 2008.

^j Data corrected due to the "fast close" process.

^k Since 2016, excluding apprentices in Germany.

^l Previous years: face-to-face training only; from 2020 face-to-face and online training.

^m Management circles 1–3.

ⁿ This indicator contains all work-related accidents (excluding traffic accidents) resulting in absences of at least one full shift per 200,000 working hours (from 2021).


^o Number of incidents per 200,000 working hours (from 2021).

^p Max. 6.0 (index takes account of key aspects of occupational medicine, health promotion, and emergency medical management).

Status of our sustainability targets for 2021

 102-14, 102-15

Target attainment in 2021

This table shows the targets we set for the reporting period. Except where otherwise indicated, they refer to 2021. The traffic lights show progress towards achieving the targets. You can find details of the exact status in the relevant chapters and the table "Sustainability indicators for the Evonik Group"  p.114.

T29



Strategy and growth

 p.12

- At least 35 percent of sales should come from Next Generation Solutions



Governance and compliance

 p.28

- 30 percent women at both the first and the second management level below the executive board by year-end 2024
- 100 percent of all raw materials suppliers where annual procurement volume is >€100 thousand to be covered by Tfs assessments by year-end 2025



Value chain and products

 p.48

- Generate more than €1 billion in additional sales^a in our six innovation growth fields by 2025
- Add substances/products from acquisitions^b to CMS/CMS^{PLUS} and process them by the end of 2023



Target not achieved

Target partially achieved or target horizon extends beyond 2021

Target achieved

^a With products introduced in or after 2015.

^b Since 2017.

^c New reference value from 2021 in line with current international practice.

^d Adjustment of the calculation basis from 2021.



The environment

 p.73

- Reduce absolute scope 1 and scope 2 emissions by 50 percent by 2025 (reference base: 2008)
- Reduce absolute scope 3 emissions from the upstream value chain—principally from the "raw material backpack"—by 15 percent by 2025 (reference base: 2020)
- Develop site-specific action plans for sites that are potentially exposed to water stress as part of a global water management system
- Reduce both absolute and specific energy consumption by 5 percent by 2025 (reference base: 2020)



Employees

 p.91

- Proportion of women in top and senior management should be 23 percent at each level by 2023
- Intercultural mix at executive level should be 20 percent by 2023



Safety

 p.105

- Accident frequency rate^c ≤ 0.26
- Incident frequency rate^d ≤ 0.40
- Occupational health performance index ≥ 5.0

About this report

Sustainability report 2021

This is the 14th full sustainability report published by Evonik. It supplements the financial report 2021 and the combined non-financial statement in the management report by reporting on further ecological and social issues. The aim is to provide an insight into how we run our business and drive forward sustainability in the Evonik Group.

The report covers the period from January 1 to December 31, 2021, except where otherwise indicated. Our previous sustainability report on 2020 was published in March 2021. The next sustainability report covering 2022 will be published in spring 2023. [📄 102-50, 102-51, 102-52](#)

Method

The report continues our digital, strategic sustainability reporting, focusing on key topics. The 19 topics of our materiality analysis were reviewed in 2021. We came to the conclusion that these topics are balanced, complete, and still relevant for Evonik.

In light of the legislation on due diligence in the supply chain adopted by the German government in June 2021 and planned EU regulatory requirements, we have moved the section on responsibility in the supply chain to the “Governance and compliance” chapter. In addition, we have provided more detailed content on energy management, opportunity and risk management, and data protection.

In this report, we link Evonik’s sustainability topics, which are grouped in six areas of action, to the Sustainable Development Goals (SDGs) and our own targets. The most important sustainability targets and their status are summarized in a table at the beginning of this report. Our sustainability strategy, the various analytical tools used to measure sustainability, and integration of sustainability into our strategic management process are explained in the chapter “Strategy and growth” [📄 p.17](#).

The reporting period was dominated by the development of new targets and measures to drive forward our climate and sustainability strategy. In addition, we aligned our governance structure to the Evonik Group’s new corporate structure. The most important sustainability bodies in the Evonik Group are now the sustainability circle and the sustainability council (see “Strategy and growth” [📄 p.17](#)). In August 2021, Evonik successfully placed its first green hybrid bond on the market. This is based on the Green Finance Framework¹, which integrates sustainability into Evonik’s financing strategy.

In the reporting period, we bundled Evonik’s contribution to a sustainable transformation in four **Sustainability Focus Areas (SFAs)**: fight climate change, drive circularity, safeguard ecosystems, and ensure health & wellbeing (see the special section on our Sustainability Focus Areas, [📄 p.59](#)). For each SFA, we show how Evonik reduces its own ecological footprint and the handprint resulting from the use of our products and solutions in the relevant markets. Each SFA addresses specific sustainability requirements and describes our contribution to the SDGs.

BASIS OF REPORTING

About this report

The aim of our sustainability strategy is to gain a precise understanding of the principal influences and impacts on the value created by Evonik. The complex interrelationships are illustrated in the charts “Resources and value contributed by Evonik” ([C05](#) [📄 p.15](#)), “Monetary impact valuation” ([C08](#) [📄 p.21](#)), and “Areas of action and impact of Evonik’s business activities along the value chain” ([C12](#) [📄 p.26](#)). We examine this influence not simply in aggregated areas of action but also at the level of our 19 material sustainability topics.

Evonik supports the SDGs and has systematically taken them into account for several years. In addition, we have mapped the GRI content index to the 17 SDGs, and the section titled “Basis of reporting” contains an index with the most important SDGs for the Evonik Group, including relevant sub-targets. We also disclose the proportion of sales with which our chemicals businesses contribute to achieving the four SDGs of relevance to Evonik (SDG 3, SDG 6, SDG 12, SDG 13) (see “Strategy and growth” [📄 p.20](#)).


You can find information about our commitment to society (corporate citizenship) on our “Responsibility” website.²


In 2021, we increased the detail of the sustainability analysis of business, which once again covered our entire portfolio.³ Our portfolio contains products and solutions whose strongly positive sustainability profile is above or well above the market reference level. We refer to this class of products as **Next Generation Solutions** (see “Strategy and growth” [📄 p.16](#)).

¹ <https://corporate.evonik.de/en/investor-relations/bonds-rating/green-finance>

² <https://corporate.evonik.de/en/responsibility>

³ The sustainability analysis was outside the scope of the limited assurance review by the auditor.


As part of the Green Deal, the EU taxonomy is designed to direct financing towards sustainable investments. In this context, in 2021, the EU Commission adopted delegated acts for the environmental objectives climate change mitigation and climate change adaptation. At present, the first two environmental objectives where disclosures are required in conformance with the EU taxonomy only address Evonik's portfolio of specialty chemicals to a limited extent. We report on these for the first time this year (see "Strategy and growth"  p.16).

Rapid access to data and a clear structure are important to us. In view of this, we have included overviews of our key sustainability indicators, target attainment, and future targets. Furthermore, additional charts have been included to enhance the content and improve transparency. These include, for example, charts on our energy targets and risk management. In addition, the chart "Resources and value contributed by Evonik" (C05  p.15) has been revised to reflect the IOOI method.


In addition, we have further optimized our processes for simultaneous publication of our sustainability report, financial report and the combined non-financial statement in the management report. The "Strategy and growth" chapter contains the data from our impact valuation for the reporting period and thus without a time lag for the first time. This allows presentation of a complete and up-to-date overview of Evonik's performance.

At Evonik, the executive board bears overall responsibility for sustainability, and direct responsibility is assigned to the chief human resources officer. He approved the content of this report

and confirmed that it addresses all material sustainability topics of relevance for Evonik and its stakeholders.

This report is published in English and German and is available solely in electronic form. It can be downloaded from the Responsibility section of Evonik's website.¹ A multimedia version of the report is also available.²  102-8, 102-48, 102-49, 302-1, 302-4, 305-1, 305-2, 305-3, 305-4, 305-5, 305-6, 305-7, 306-1, 306-2, 306-3, 306-4, 306-5

Data capture, scope of reporting, and limits


Our data cover the relevant companies worldwide that were included in the scope of consolidation³ for the consolidated financial statements of Evonik Industries AG for the period from January 1 through December 31, 2021. The consolidated financial statements are prepared in accordance with the International Financial Reporting Standards (IFRS). Alongside Evonik Industries AG, they include all material German and foreign subsidiaries directly or indirectly controlled by Evonik Industries AG. Joint operations are included on a pro rata basis. Material associates and joint ventures are recognized at equity if Evonik is able to exert a significant influence. Initial consolidation or deconsolidation takes place as of the date on which the company gains or loses its controlling influence.  102-45, 102-46

In 2021, the Evonik Group comprised 33 German and 140 foreign companies. Relevant data on personnel and social indicators are based largely on the global SAP HR information system. For supplementary information, we use the HR Information Collector (SAP notes management). The focus of our reporting and the reporting boundaries are based principally on the sustainability topics derived from our materiality analysis.

BASIS OF REPORTING

About this report


The ecological data in this report comprise emissions and consumption data for 102 production sites in 27 countries and thus cover our entire production volume. Occupational safety data include other small production sites and non-production locations (mainly administration sites), so the data here cover 206 locations in 54 countries. The data are compiled using sustainability reporting software developed specifically for this purpose (SuRe software 2.0). In 2022, the global server platform ESTER will replace group-wide incident reporting via SuRe.

Since the sustainability report and the financial report are now published on the same date, the closing date for the environmental data was September 30, 2021 (see the section headed "Fast close process and corrections"  p.118). The HR data from the HR Information Collector are also based on the actual data as of the closing date, September 30, 2021. Only the number of hours of continuing professional development has been projected for a twelve-month period.

All reporting units are clearly coded to allocate them to organizational and business entities and geographical region. This allows consolidation at management and legal entity levels as well as a more detailed regional analysis of the data. The ecological data are updated annually without taking changes in the Evonik Group into account. The prior-year figures are not adjusted for changes in the portfolio of companies consolidated.

The key data in this report are rounded in line with standard commercial practice. In some cases, this may mean that individual values do not add up exactly to the totals given and percentages are not an exact reflection of the values stated.

¹  <https://corporate.evonik.de/en/responsibility>

²  <https://sustainability-report.evonik.com/>

³ An overview of all companies included in the consolidated financial statements and all shareholders pursuant to section 313 paragraph 2 of the German Commercial Code (HGB) is presented in the list of shareholdings.  www.evonik.com/list-of-shareholdings

Fine-tuning of environmental reporting

From 2021, we only report wastewater loads for direct discharges. It is not possible to obtain data on specific degradation rates of indirect discharges that are accurate enough (+/–5 percent) to calculate environmental impacts. The raw loads of the indirect discharge sites are, however, still included internally in the Evonik reporting framework and will continue to be monitored—with a view to minimizing loads and costs.

Material portfolio changes

In November 2020, Evonik acquired the Porocel Group (Houston, Texas, USA) to add desulfurization catalysts and adsorbents to its portfolio of catalysts. This company, which has around 300 employees, and its production facilities in Brier Park (Canada), Lafayette (Indiana, USA), Little Rock (Arkansas, USA), Rodange (Luxembourg), and Singapore have been integrated into Evonik's Smart Materials division. These new sites have been included in our SuRe reporting since 2021. The other acquisitions and divestments/shutdowns did not have a material impact on the environmental data for 2021. [102-48](#), [102-49](#)

Fast close process and corrections

Since the financial report and the sustainability report are published on the same date, we have used a fast close process for our environmental reporting since 2018. For this, we extended our quarterly reporting, and the remaining annual reporting was brought forward to September 30, the Q3 closing date. The

annual reporting mainly comprises emissions into the air (excluding CO₂) and wastewater loads. Quarterly reporting focuses on energy, CO₂, production volumes, waste, and water requirements, especially with reference to the progress towards attaining our environmental targets.

For the data still compiled only once a year, the environmental impact is calculated or estimated on a decentralized basis on September 30 for the remainder of the year, i.e., for the fourth quarter. Data input by the sites takes into account any deviations from regular operations in the fourth quarter, such as maintenance shutdowns, seasonal effects, and production forecasts.

For the data compiled quarterly, the ESHQ function calculates the fourth quarter (Q4) data centrally on the basis of the data for the first three quarters. Additional, targeted questions on material environmentally relevant facilities are used for this. The Q4 data requests are forwarded to the sites/facilities as usual.

In the first quarter, the ESHQ function compares the actual Q4 data entered in the system with the data forecast or calculated for the fast close report, analyzes any discrepancies, and takes steps to continuously improve calculation methods as necessary. If the difference between the actual and published data is more than 5 percent, the data are corrected in the next report, and a comment is included in the relevant tables.

BASIS OF REPORTING

About this report

Irrespective of the data validation in the fast close process, our ESHQ data are subject to a wide range of internal and external audits and official monitoring.

[303-1](#), [303-2](#), [303-3](#), [303-4](#), [303-5](#)

GRI and UN Global Compact

This report has been prepared in accordance with the GRI Standards, core option. It also takes account of the ten principles of the UN Global Compact and constitutes Evonik's progress report on these principles. [102-54](#)

SASB

For fiscal 2021 for the first time, we include a separate index based on the SASB Chemicals Sustainability Reporting Standard ([p. 133](#)).

External assurance

To ensure that this report is up to date, we have included all relevant data available to us as of the editorial deadline on February 17, 2021. The chapters titled "Strategy and growth," "Governance and compliance," "Value chain and products," "The environment," "Employees," and "Safety," and the sections headed "Our business model" and "Fiscal 2021" were subject to a limited assurance review by KPMG AG Wirtschaftsprüfungsgesellschaft—with the exception of the information indicated as being outside the scope of this review. The independent practitioner's limited assurance report is printed on [p. 135](#). The limited assurance review of the previous year's figures was conducted by PricewaterhouseCoopers GmbH. [102-56](#)

TCFD index

We are closely following the objectives of the **Task Force on Climate-related Financial Disclosures (TCFD)** and the establishment of sustainability reporting standards. In keeping with its participation in **CDP Climate Change**, in 2021 Evonik again published detailed strategies, data, and development paths on climate change. <https://www.evonik.com/CDP-ClimateChange>. We also present climate-related data in the combined management report in our financial report and in this sustainability report. A cross-unit working group regularly examines the TCFD requirements. Key climate-related information is presented in the following overview using the TCFD structure, divided into the categories governance, strategy, risk management, and metrics and targets.

T30

Climate-related information by category

You can find further information here:

Governance

Climate change is a matter of the utmost importance for the entire executive board. Direct responsibility for implementing our group-wide sustainability and climate strategy, monitoring, and reporting is assigned to the member of the executive board responsible for sustainability. The head of the Environment, Safety, Health and Quality function regularly reports to the executive board on climate-related issues. The main sustainability bodies at Evonik are the sustainability circle and the sustainability council. The sustainability circle comprises representatives of the relevant functions and specialist departments. The sustainability council ensures close alignment with the businesses. Both are chaired by the executive board member responsible for sustainability.

The supervisory board regularly addressed sustainability issues in 2021, including climate-related aspects and the EU taxonomy.

In the future, the ongoing strategic development of sustainability management at Evonik will be reflected in the remuneration of the executive board and corporate executives through additional sustainability targets.

Combined management report, section 5.5 The environment [p. 55 ff.](#)

Sustainability report, chapter Strategy and growth [p. 12 ff.](#)

2021 CDP Climate Change response: chapter Governance <https://www.evonik.com/CDP-ClimateChange>

Climate-related information by category

You can find further information here:

Strategy

Climate change involves perceptible opportunities and risks for Evonik. We have therefore integrated climate and sustainability aspects into our strategic management process. Our contributions to a sustainable transformation are grouped in four Sustainability Focus Areas (SFAs), which include "fight climate change." Each SFA addresses specific sustainability requirements.

In the upstream value chain, we evaluate both our "raw material backpack" and scope 1 and 2^a emissions from our production facilities. Downstream, our products improve our customers' CO₂ profile. In view of the increasing climate awareness, we expect demand to rise further, with a correspondingly positive impact on our business. Our goal for the coming years is to substantially increase the proportion of products with a pronounced sustainability profile (Next Generation Solutions).

In 2021, we evaluated options to achieve a further reduction in our greenhouse gas emissions. When assessing potential measures to reduce emissions, we always examine both technological and economic viability criteria and the impact on growth and profitability scenarios.

We have identified short-, mid- and long-term transition risks and physical risks. You can find an extensive description of the individual risks in our CDP Climate Change response. The short- and mid-term opportunities and risks are taken into account in our financial planning. Furthermore, since 2021, our risk management system has included extreme risks, which are partly due to climate change.

Combined management report, section 6. Opportunity and risk report [p. 64 ff.](#)

Evonik Carbon Footprint www.evonik.com/responsibility

Sustainability report, chapter Value change and products, section "Sustainable products and solutions for our customers" [p. 57 f.](#)

2021 CDP Climate Change response: chapter Business Strategy <https://www.evonik.com/CDP-ClimateChange>

^a Scope 1 comprises direct energy and process emissions, and scope 2 comprises emissions from purchased electricity and heat. Scope 3 contains indirect emissions such as emissions from the production of purchased raw materials.

Climate-related information by category


You can find further information here:

Risk management

In keeping with the executive board's overall responsibility, the chief financial officer (CFO) is responsible for ensuring the correct functioning of risk management. To ensure this, we use an integrated, multidisciplinary opportunity and risk management system, which explicitly includes climate-related opportunities and risks. Opportunities and risks are identified and evaluated group-wide and measures are taken to control and monitor them.

The risk committee chaired by the CFO meets quarterly. The corporate risk officer reports regularly to the executive board on the opportunities and risks for the Evonik Group, including climate-related risks.

We systematically develop our risk management system and align it to new requirements.

Combined management report, section 6. Opportunity and risk report  p. 64 ff.

2021 CDP Climate Change response: chapter Risks and opportunities  <https://www.evonik.com/CDP-ClimateChange>

Climate-related information by category



You can find further information here:


Metrics and targets

Evonik and its predecessor companies have defined ambitious environmental targets since 2004. Our current target is to cut scope 1 and 2 greenhouse gas emissions^a by 50 percent in absolute terms by 2025 (reference base: 2008). Furthermore, by 2025 we want to cut scope 3 emissions from our upstream value chain by 15 percent and absolute and specific energy consumption by 5 percent in each case (reference base: 2020).

Calculation of our CO₂eq^b emissions is based on the Greenhouse Gas Protocol.

In 2021 our CO₂eq emissions were:
 Scope 1: 4.8 million metric tons
 Scope 2^c: 0.6 million metric tons
 Scope 3: 21.9 million metric tons

Combined management report, sections 1.2 Principles and objectives  p. 16 and 5.5 The environment  p. 55 ff.

Sustainability report, chapter The environment  p. 73 ff.

2021 CDP Climate Change response: chapter Targets and performance  <https://www.evonik.com/CDP-ClimateChange>

^a Scope 1 comprises direct energy and process emissions, and scope 2 comprises emissions from purchased electricity and heat. Scope 3 contains indirect emissions such as emissions from the production of purchased raw materials.

^b CO₂ equivalents.

^c Net scope 2 (market-based). The net figure shows the position after subtracting electricity and steam supplied to third parties from the total amount of purchased electricity and steam.

SDG index

Reporting on the targets for the SDGs of relevance for Evoniks

Evonik supports the United Nations' 17 Sustainable Development Goals (SDGs). Using our own methodology (see "Strategy and growth" [p.20](#)) we have identified the four SDGs that are especially relevant for Evonik.

An SDG is relevant for us if there is a significant positive or negative influence on or by Evonik. Our products and solutions help to achieve the relevant SDGs. We are always aware that our business activities can have critical impacts in some cases. The most relevant SDGs for Evonik are:

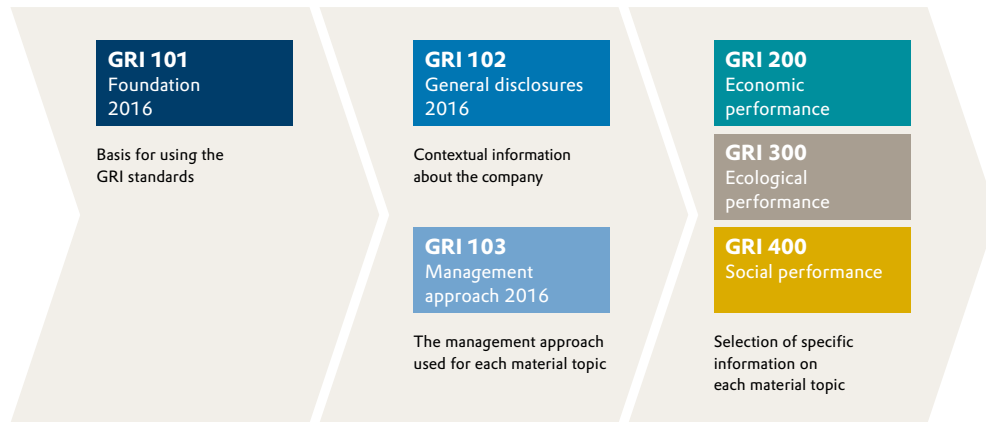


Targets for the SDGs of relevance for Evonik

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Relevant targets	Reference in sustainability report 2020
SDG 3—Ensure healthy lives and promote well-being for all at all ages	
3.9: By 2030, substantially reduce the number of deaths and illnesses from hazardous chemicals and air, water, and soil pollution and contamination	<ul style="list-style-type: none"> ● Strategy and growth p.13, 20 ● Value chain and products p.49 ● The environment p.74, 77, 83
SDG 6—Ensure availability and sustainable management of water and sanitation for all	
6.3: By 2030, improve water quality by reducing pollution, eliminating dumping, and minimizing release of hazardous chemicals and materials, halving the proportion of untreated wastewater, and substantially increasing recycling and safe reuse globally	<ul style="list-style-type: none"> ● The environment p.74, 83
6.4: By 2030, substantially increase water-use efficiency across all sectors and ensure sustainable withdrawals and supply of freshwater to address water scarcity and substantially reduce the number of people suffering from water scarcity	<ul style="list-style-type: none"> ● The environment p.74, 83
6.6: By 2030, protect and restore water-related ecosystems, including mountains, forests, wetlands, rivers, aquifers, and lakes	<ul style="list-style-type: none"> ● The environment p.74, 89
SDG 12—Ensure sustainable consumption and production patterns	
12.2: By 2030, achieve the sustainable management and efficient use of natural resources	<ul style="list-style-type: none"> ● Strategy and growth p.13, 20 ● Value chain and products p.49, 52, 57 ● The environment p.74, 77, 83, 87
12.4: By 2020, achieve the environmentally sound management of chemicals and all wastes throughout their life cycle, in accordance with agreed international frameworks, and significantly reduce their release to air, water, and soil in order to minimize their adverse impacts on human health and the environment	<ul style="list-style-type: none"> ● Strategy and growth p.13, 20 ● Value chain and products p.49, 68 ● The environment p.74, 77, 83, 87
12.5: By 2030, substantially reduce waste generation through prevention, reduction, recycling, and reuse	<ul style="list-style-type: none"> ● Value chain and products p.49, 54 ● The environment p.74, 87
12.6: Encourage companies, especially large and transnational companies, to adopt sustainable practices and to integrate sustainability information into their reporting cycle	<ul style="list-style-type: none"> ● Strategy and growth p.13, 20 ● Governance and compliance p.29, 30 ● Value chain and products p.49, 57
SDG 13—Take urgent action to combat climate change and its impacts	
13.1: Strengthen resilience and adaptive capacity to climate-related hazards and natural disasters in all countries	<ul style="list-style-type: none"> ● Governance and compliance p.29, 35
13.2: Integrate climate change measures into national policies, strategies, and planning	<ul style="list-style-type: none"> ● Strategy and growth p.13, 20 ● The environment p.74, 77
13.3: Improve education, awareness-raising, and human and institutional capacity on climate change mitigation, adaptation, impact reduction, and early warning	<ul style="list-style-type: none"> ● Strategy and growth p.13, 14 ● The environment p.74, 77

GRI content index of the Global Reporting Initiative (GRI) including the ten principles of the UN Global Compact (UNGC) and the 17 UN Sustainable Development Goals ^{102-54, 102-55}



The following GRI content index is based on the topics of material relevance to Evonik and therefore on the structure of the chapters in this report. The aim is to enhance readability and ensure that topics can be located easily. In the description of the management approaches, we have also increased the focus on topics of relevance to us. Consequently, the GRI indicators are not necessarily presented in ascending order. Instead, they are presented on the basis of our areas of action: "strategy and growth," "governance and compliance" (including an additional management approach on human rights), "value chain and products," "the environment," "employees," and "safety." This report has been prepared in accordance with GRI Standards 'core' option. For the Materiality Disclosures Service, GRI Services reviewed that the GRI content index is clearly presented and the references for disclosures 102-40 to 102-49 align with the appropriate sections of the report. Since 2019 we have mapped the 17 UN Sustainable Development Goals to the GRI disclosures. In the performance of this service, the GRI Report Services team confirms that the information contained in the content index has been correctly assigned to the SDGs. Both GRI Services were performed on the German version of this report.



GRI content index and UN Global Compact progress report

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Relevant SDG	UNGC principle	GRI standard	Page ^a	Omissions
General Disclosures				
GRI 101: Foundation 2016				
GRI 102: General Disclosures 2016				
Organizational profile				
		GRI102-1 Name of the organization	116, 141	
7		GRI102-2 Activities, brands, products, and services	10, 59	
		GRI102-3 Location of headquarters	141	
		GRI102-4 Location of operations	116, 138, (31)	
		GRI102-5 Ownership and legal form	4, 141	
		GRI102-6 Markets served	59, (15)	

^a Page no. in sustainability report (page no. in financial report www.evonik.com/Financial_Report).

Relevant SDG	UNGC principle	GRI standard		Page ^a	Omissions
		GRI102-7	Scale of the organization	4	
8, 10	6	GRI102-8	Information on employees and other workers	95, 98, 116	
		GRI102-9	Supply chain	43	
		GRI102-10	Significant changes to the organization and its supply chain	25, 116	
		GRI102-11	Precautionary principle or approach	30, 35	
		GRI102-12	External initiatives	30, 31, 32	
		GRI102-13	Membership of associations	30, 68	
		Strategy			
		GRI102-14	Statement from senior decision-maker	8, 9, 115	
		GRI102-15	Key impacts, risks, and opportunities	15, 18, 34, 115, (64)	
		Ethics and integrity			
16	1-6, 7, 10	GRI102-16	Values, principles, standards, and norms of behavior	30, 35, 44	
16	1-6, 7, 10	GRI102-17	Mechanisms for advice and concerns about ethics	34, 36, 37	
		Governance			
		GRI102-18	Governance structure	18, 32	
		GRI102-19	Delegating authority	18	
		GRI102-20	Executive-level responsibility for economic, environmental, and social topics	18, 32	
16		GRI102-21	Consulting stakeholders on economic, environmental, and social topics	22, 23	
5, 16		GRI102-22	Composition of the highest governance body and its committees	18, 33, (79)	
16		GRI102-23	Chair of the highest governance body	33, (79)	
5, 16		GRI102-24	Nominating and selecting the highest governance body	33, (79)	
16		GRI102-25	Conflicts of interest	33, 43, (79), (90)	
		GRI102-26	Role of highest governance body in setting purpose, values, and strategy	(79)	
		GRI102-27	Collective knowledge of highest governance body	33, 43, (91), (93)	
		GRI102-28	Evaluating the highest governance body's performance	33, (79), www.evonik.com/remuneration-report	
16		GRI102-29	Identifying and managing economic, environmental, and social impacts	18, 22, (86), (87)	
		GRI102-30	Effectiveness of risk management processes	34, (64), (86)	
		GRI102-31	Review of economic, environmental, and social topics	33, (64), (86)	
		GRI102-32	Highest governance body's role in sustainability reporting	8, 18	
		GRI102-33	Communicating critical concerns	22, 34	
		GRI102-34	Nature and total number of critical concerns	40	

^a Page no. in sustainability report (page no. in financial report www.evonik.com/Financial_Report).

Relevant SDG	UNGC principle	GRI standard	Page ^a	Omissions
		GRI102-35 Remuneration policies	33, 35, 96, www.evonik.com/remuneration-report	
		GRI102-36 Process for determining remuneration	33, 35, 96, www.evonik.com/remuneration-report	
16		GRI102-37 Stakeholders' involvement in remuneration	35, 96, www.evonik.com/remuneration-report	
		GRI102-38 Annual total compensation ratio	33	
		GRI102-39 Percentage increase in annual total compensation ratio	33	
Stakeholder engagement				
		GRI102-40 List of stakeholder groups	22, 23, 25	
8	3	GRI102-41 Collective bargaining agreements	96, 97, 98	
		GRI102-42 Identifying and selecting stakeholders	22, 25	
		GRI102-43 Approach to stakeholder engagement	22, 23, 25, 99, 107	
		GRI102-44 Key topics and concerns raised	22, 23, 25, 57	
Reporting practice				
		GRI102-45 Entities included in the consolidated financial statements	117	
		GRI102-46 Defining report content and topic boundaries	25, 26, 27, 117	
		GRI102-47 List of material topics	23, 25, 26	
		GRI102-48 Restatements of information	22, 25, 117, 118	
		GRI102-49 Changes in reporting	25, 117, 118	
		GRI102-50 Reporting period	116	
		GRI102-51 Date of most recent report	116, 141	
		GRI102-52 Reporting cycle	116	
		GRI102-53 Contact point for questions regarding the report	141	
		GRI102-54 Claims of reporting in accordance with the GRI Standards	118, 122	
		GRI102-55 GRI content index	122	
		GRI102-56 External assurance	118	
Topic-specific standards				
Strategy and growth				
GRI 201: Economic Performance 2016				
GRI 103: Management approach 2016				
	7, 8, 9	GRI103-1 Explanation of the material topic and its boundary	14, 15, 16, 17, 20, 21, 25, 26, 27	
	7, 8, 9	GRI103-2 The management approach and its components	9, 14, 17, 19, 21, 25, 26, 27, 30, 32, 37, 116, 117, 118	

^a Page no. in sustainability report (page no. in financial report www.evonik.com/Financial_Report).

Relevant SDG	UNGC principle	GRI standard		Page ^a	Omissions
	7, 8, 9	GRI103-3	Evaluation of the management approach	5, 8, 9, 14, 22, 25, 36, 37, 39, 40, 114, 115, 116, 117, 118	
8, 9		GRI 201-1	Direct economic value generated and distributed	11, 114	
13	7	GRI 201-2	Financial implications and other risks and opportunities due to climate change	18, 34, (64), (73)	
		GRI 201-3	Defined benefit plan obligations and other retirement plans	97, (133), www.evonik.com/remuneration-report	
		GRI 201-4	Financial assistance received from government	51	For confidentiality reasons, we only report on financial assistance received from the EU and Germany; we do not make the other disclosures required by GRI.
GRI 202: Market Presence 2016					
GRI 103: Management approach 2016					
	6	GRI103-1	Explanation of the material topic and its boundary	14, 15, 16, 17, 20, 21, 25, 26, 27	
	6	GRI103-2	The management approach and its components	9, 14, 17, 19, 21, 25, 26, 27, 30, 32, 37, 93, 94, 95, 96, 101, 102, 116, 117, 118	
	6	GRI103-3	Evaluation of the management approach	5, 8, 9, 14, 22, 25, 36, 37, 39, 40, 114, 115, 116, 117, 118	
1, 5, 8	6	GRI 202-1	Ratios of standard entry level wage by gender compared to local minimum wage	96	
8	6	GRI 202-2	Proportion of senior management hired from the local community	102	
GRI 203: Indirect Economic Impacts 2016					
GRI 103: Management approach 2016					
	7, 8, 9	GRI103-1	Explanation of the material topic and its boundary	14, 15, 16, 17, 20, 21, 25, 26, 27	
		GRI103-2	The management approach and its components	9, 14, 17, 19, 21, 25, 26, 27, 30, 32, 37, 116, 117, 118	
		GRI103-3	Evaluation of the management approach	5, 8, 9, 14, 22, 25, 36, 37, 39, 40, 114, 115, 116, 117, 118	
5, 9, 11		GRI 203-1	Infrastructure investments and services supported	15, 18	
1, 3, 8		GRI 203-2	Significant indirect economic impacts	15, 18, (31)	
Governance and Compliance					
GRI 204: Procurement Practices 2016					
GRI 103: Management approach 2016					
		GRI103-1	Explanation of the material topic and its boundary	14, 15, 16, 17, 20, 21, 25, 26, 27	
		GRI103-2	The management approach and its components	9, 14, 17, 19, 21, 25, 26, 27, 30, 32, 37, 116, 117, 118	
		GRI103-3	Evaluation of the management approach	5, 8, 9, 14, 22, 25, 36, 37, 39, 40, 114, 115, 116, 117, 118	
8		GRI 204-1	Proportion of spending on local suppliers	45	

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Relevant SDG	UNGC principle	GRI standard	Page ^a	Omissions
GRI 205: Anti-Corruption 2016				
GRI 103: Management approach 2016				
	10	GRI103-1 Explanation of the material topic and its boundary	14, 15, 16, 17, 20, 21, 25, 26, 27	
	10	GRI103-2 The management approach and its components	9, 14, 17, 19, 21, 25, 26, 27, 30, 32, 37, 38, 39, 40, 116, 117, 118	
	10	GRI103-3 Evaluation of the management approach	5, 8, 9, 14, 22, 25, 36, 37, 39, 40, 114, 115, 116, 117, 118	
16	10	GRI 205-1 Operations assessed for risks related to corruption	35, 36, 39	
16	10	GRI 205-2 Communication and training about anti-corruption policies and procedures	39	
	10	GRI 205-3 Confirmed incidents of corruption and actions taken	40	
GRI 206: Anti-Competitive Behavior 2016				
GRI 103: Management approach 2016				
		GRI103-1 Explanation of the material topic and its boundary	14, 15, 16, 17, 20, 21, 25, 26, 27	
		GRI103-2 The management approach and its components	9, 14, 17, 19, 21, 25, 26, 27, 30, 32, 37, 38, 39, 40, 116, 117, 118	
		GRI103-3 Evaluation of the management approach	5, 8, 9, 14, 22, 25, 36, 37, 39, 40, 114, 115, 116, 117, 118	
16	10	GRI 206-1 Legal actions for anti-competitive behavior, anti-trust, and monopoly practices	39	
GRI 207: Tax 2019^b				
GRI 103: Management approach 2016				
1, 10, 17		GRI 207-1 Approach to tax	42	
1, 10, 17		GRI 207-2 Tax governance, control, and risk management	42	
1, 10, 17		GRI 207-3 Stakeholder engagement and management of concerns related to tax	42	
GRI 308: Supplier Environmental Assessment 2016				
GRI 103: Management approach 2016				
		GRI103-1 Explanation of the material topic and its boundary	14, 15, 16, 17, 20, 21, 25, 26, 27	
		GRI103-2 The management approach and its components	9, 14, 17, 19, 21, 25, 26, 27, 30, 32, 37, 43, 44, 45, 46, 47, 116, 117, 118	
		GRI103-3 Evaluation of the management approach	5, 8, 9, 14, 22, 25, 36, 37, 39, 40, 114, 115, 116, 117, 118	
	8	GRI 308-1 New suppliers that were screened using environmental criteria	44, 46	
		GRI 308-2 Negative environmental impacts in the supply chain and actions taken	45, 46	
GRI 406: Non-Discrimination 2016				
GRI 103: Management approach 2016				
	6	GRI103-1 Explanation of the material topic and its boundary	14, 15, 16, 17, 20, 21, 25, 26, 27	
	6	GRI103-2 The management approach and its components	9, 14, 17, 19, 21, 25, 26, 27, 30, 32, 37, 40, 43, 46, 102, 116, 117, 118	

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^b Voluntary reporting, according to current materiality analysis not a significant topic.

Relevant SDG	UNGC principle	GRI standard		Page ^a	Omissions
	6	GRI103-3	Evaluation of the management approach	5, 8, 9, 14, 22, 25, 36, 37, 39, 40, 114, 115, 116, 117, 118	
5, 8	6	GRI 406-1	Incidents of discrimination and corrective actions taken	46, 102	On data protection grounds, it is not possible for us to make all the disclosures required by the GRI.
GRI 407: Freedom of Association and Collective Bargaining 2016					
GRI 103: Management approach 2016					
	2, 3	GRI103-1	Explanation of the material topic and its boundary	14, 15, 16, 17, 20, 21, 25, 26, 27	
	2, 3	GRI103-2	The management approach and its components	9, 14, 17, 19, 21, 25, 26, 27, 30, 32, 37, 43, 44, 45, 46, 99, 116, 117, 118	
	2, 3	GRI103-3	Evaluation of the management approach	5, 8, 9, 14, 22, 25, 36, 37, 39, 40, 114, 115, 116, 117, 118	
8	2, 3	GRI 407-1	Operations and suppliers in which the right to freedom of association and collective bargaining may be at risk	31, 35, 38, 45, 46, 99	
GRI 408: Child Labor 2016					
GRI 103: Management approach 2016					
	2, 5	GRI103-1	Explanation of the material topic and its boundary	14, 15, 16, 17, 20, 21, 25, 26, 27	
	2, 5	GRI103-2	The management approach and its components	9, 14, 17, 19, 21, 25, 26, 27, 30, 32, 37, 43, 44, 45, 46, 99, 116, 117, 118	
	2, 5	GRI103-3	Evaluation of the management approach	5, 8, 9, 14, 22, 25, 36, 37, 39, 40, 114, 115, 116, 117, 118	
8, 16	2, 5	GRI 408-1	Operations and suppliers at significant risk for incidents of child labor	31, 35, 38, 45, 46, 99	
GRI 409: Forced or Compulsory Labor 2016					
GRI 103: Management approach 2016					
	2, 4	GRI103-1	Explanation of the material topic and its boundary	14, 15, 16, 17, 20, 21, 25, 26, 27	
	2, 4	GRI103-2	The management approach and its components	9, 14, 17, 19, 21, 25, 26, 27, 30, 32, 37, 43, 44, 45, 46, 99, 116, 117, 118	
	2, 4	GRI103-3	Evaluation of the management approach	5, 8, 9, 14, 22, 25, 36, 37, 39, 40, 114, 115, 116, 117, 118	
8	2, 4	GRI 409-1	Operations and suppliers at significant risk for incidents of forced or compulsory labor	31, 35, 38, 45, 46, 99	
GRI 412: Human Rights Assessment 2016					
GRI 103: Management approach 2016					
	1, 2	GRI103-1	Explanation of the material topic and its boundary	14, 15, 16, 17, 20, 21, 25, 26, 27	
	1, 2	GRI103-2	The management approach and its components	9, 14, 17, 19, 21, 25, 26, 27, 30, 32, 37, 43, 44, 45, 46, 99, 116, 117, 118	
	1, 2	GRI103-3	Evaluation of the management approach	5, 8, 9, 14, 22, 25, 36, 37, 39, 40, 114, 115, 116, 117, 118	
	1, 2	GRI 412-2	Employee training on human rights policies or procedures	31, 39	

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Relevant SDG	UNGC principle	GRI standard	Page ^a	Omissions
GRI 414: Supplier Social Assessment 2016				
GRI 103: Management approach 2016				
		GRI103-1 Explanation of the material topic and its boundary	14, 15, 16, 17, 20, 21, 25, 26, 27	
	1-6	GRI103-2 The management approach and its components	9, 14, 17, 19, 21, 25, 26, 27, 30, 32, 37, 43, 44, 45, 46, 47, 116, 117, 118	
	1-6	GRI103-3 Evaluation of the management approach	5, 8, 9, 14, 22, 25, 36, 37, 39, 40, 114, 115, 116, 117, 118	
5, 8, 16	1-6	GRI 414-1 New suppliers that were screened using social criteria	45, 46	
5, 8, 16	1-6	GRI 414-2 Negative social impacts in the supply chain and actions taken	45, 46	
GRI 415: Public Policy 2016				
GRI 103: Management approach 2016				
		GRI103-1 Explanation of the material topic and its boundary	14, 15, 16, 17, 20, 21, 25, 26, 27	
		GRI103-2 The management approach and its components	9, 14, 17, 19, 21, 25, 26, 27, 30, 32, 37, 43, 116, 117, 118	
		GRI103-3 Evaluation of the management approach	5, 8, 9, 14, 22, 25, 36, 37, 39, 40, 114, 115, 116, 117, 118	
16		GRI 415-1 Political contributions	43	
GRI 418: Customer Privacy 2016				
GRI 103: Management approach 2016				
		GRI103-1 Explanation of the material topic and its boundary	14, 15, 16, 17, 20, 21, 25, 26, 27	
		GRI103-2 The management approach and its components	9, 14, 17, 19, 21, 25, 26, 27, 30, 32, 37, 42, 116, 117, 118	
		GRI103-3 Evaluation of the management approach	5, 8, 9, 14, 22, 25, 36, 37, 39, 40, 114, 115, 116, 117, 118	
16		GRI 418-1 Substantiated complaints concerning breaches of customer privacy and losses of customer data	38, 42, (64), (87)	
GRI 419: Socioeconomic Compliance 2016				
GRI 103: Management approach 2016				
		GRI103-1 Explanation of the material topic and its boundary	14, 15, 16, 17, 20, 21, 25, 26, 27	
		GRI103-2 The management approach and its components	9, 14, 17, 19, 21, 25, 26, 27, 30, 32, 37, 39, 116, 117, 118	
		GRI103-3 Evaluation of the management approach	5, 8, 9, 14, 22, 25, 36, 37, 39, 40, 114, 115, 116, 117, 118	
16		GRI 419-1 Non-compliance with laws and regulations in the social and economic area	39, (64), (87)	
Value chain and products				
GRI 301: Materials 2016				
GRI 103: Management approach 2016				
	7, 8	GRI103-1 Explanation of the material topic and its boundary	14, 15, 16, 17, 20, 21, 25, 26, 27	
	7, 8	GRI103-2 The management approach and its components	9, 14, 17, 19, 21, 25, 26, 27, 30, 32, 37, 52, 53, 54, 55, 56, 116, 117, 118	
	7, 8	GRI103-3 Evaluation of the management approach	5, 8, 9, 14, 22, 25, 36, 37, 39, 40, 114, 115, 116, 117, 118	

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Relevant SDG	UNGC principle	GRI standard		Page ^a	Omissions
8, 12	7, 8	GRI 301-1	Materials used by weight or volume	52	
8	7, 8	GRI 301-3	Reclaimed products and their packaging materials	52, 56	
GRI 416: Customer Health and Safety 2016					
GRI 103: Management approach 2016					
		GRI 103-1	Explanation of the material topic and its boundary	14, 15, 16, 17, 20, 21, 25, 26, 27	
		GRI 103-2	The management approach and its components	9, 14, 17, 19, 21, 25, 26, 27, 30, 32, 37, 68, 69, 70, 71, 72, 116, 117, 118	
		GRI 103-3	Evaluation of the management approach	5, 8, 9, 14, 22, 25, 36, 37, 39, 40, 114, 115, 116, 117, 118	
		GRI 416-1	Assessment of the health and safety impacts of product and service categories	68	
16		GRI 416-2	Incidents of non-compliance concerning the health and safety impacts of products and services	70, (64), (87)	
GRI 417: Marketing and Labeling 2016					
GRI 103: Management approach 2016					
	7	GRI 103-1	Explanation of the material topic and its boundary	14, 15, 16, 17, 20, 21, 25, 26, 27	
	7	GRI 103-2	The management approach and its components	9, 14, 17, 19, 21, 25, 26, 27, 30, 32, 37, 68, 69, 70, 71, 72, 116, 117, 118	
	7	GRI 103-3	Evaluation of the management approach	5, 8, 9, 14, 22, 25, 36, 37, 39, 40, 114, 115, 116, 117, 118	
12	7	GRI 417-1	Requirements for product and service information and labeling	68	
16	7	GRI 417-2	Incidents of non-compliance concerning product and service information and labeling	70, (64), (87)	
The environment					
GRI 302: Energy 2016					
GRI 103: Management approach 2016					
	7-9	GRI 103-1	Explanation of the material topic and its boundary	14, 15, 16, 17, 20, 21, 25, 26, 27	
	7-9	GRI 103-2	The management approach and its components	9, 14, 17, 19, 21, 25, 26, 27, 30, 32, 37, 75, 76, 77, 78, 79, 116, 117, 118	
	7-9	GRI 103-3	Evaluation of the management approach	5, 8, 9, 14, 22, 25, 36, 37, 39, 40, 114, 115, 116, 117, 118	
7, 8, 12, 13	7, 8	GRI 302-1	Energy consumption within the organization	79, 80	
7, 8, 12, 13	7, 8	GRI 302-3	Energy intensity	80	
7, 8, 12, 13	8, 9	GRI 302-4	Reduction of energy consumption	79, 80	
GRI 303: Water and Effluents 2018					
GRI 103: Management approach 2016					
		GRI 103-1	Explanation of the material topic and its boundary	14, 15, 16, 17, 20, 21, 25, 26, 27	
		GRI 103-2	The management approach and its components	9, 14, 17, 19, 21, 25, 26, 27, 30, 32, 37, 83, 84, 116, 117, 118	
		GRI 103-3	Evaluation of the management approach	5, 8, 9, 14, 22, 25, 36, 37, 39, 40, 114, 115, 116, 117, 118	
6, 12	7, 8	GRI 303-1	Interactions with water as a shared resource	21, 75, 76, 83, 84, 85, 118	
6	7, 8	GRI 303-2	Management of water discharge-related impacts	75, 83, 84, 85, 86, 118	

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Relevant SDG	UNGC principle	GRI standard		Page ^a	Omissions
6	8	GRI 303-3	Water withdrawal	84, 85, 118	Data are not available for points b and c.
6	8	GRI 303-4	Water discharge	84, 85, 118	Data are not available for points b and c.
6	8	GRI 303-5	Water consumption	84, 85, 118	Data are not available for points b and c.
GRI 304: Biodiversity 2016					
GRI 103: Management approach 2016					
	7, 8	GRI103-1	Explanation of the material topic and its boundary	14, 15, 16, 17, 20, 21, 25, 26, 27	
	7, 8	GRI103-2	The management approach and its components	9, 14, 17, 19, 21, 25, 26, 27, 30, 32, 37, 75, 76, 88, 89, 90, 116, 117, 118	
	7, 8	GRI103-3	Evaluation of the management approach	5, 8, 9, 14, 22, 25, 36, 37, 39, 40, 114, 115, 116, 117, 118	
6, 14, 15	8	GRI 304-1	Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas	89	
GRI 305: Emissions 2016					
GRI 103: Management approach 2016					
	7–9	GRI103-1	Explanation of the material topic and its boundary	14, 15, 16, 17, 20, 21, 25, 26, 27	
	7–9	GRI103-2	The management approach and its components	9, 14, 17, 19, 21, 25, 26, 27, 30, 32, 37, 75, 76, 78, 80, 81, 82, 83, 90, 116, 117, 118	
	7–9	GRI103-3	Evaluation of the management approach	5, 8, 9, 14, 22, 25, 36, 37, 39, 40, 114, 115, 116, 117, 118	
3, 12, 13, 14, 15	7, 8	GRI 305-1	Direct (Scope 1) GHG emissions	75, 78, 80, 117	
3, 12, 13, 14, 15	7, 8	GRI 305-2	Energy indirect (Scope 2) GHG emissions	75, 78, 80, 117	
3, 12, 13, 14, 15	7, 8	GRI 305-3	Other indirect (Scope 3) GHG emissions	75, 76, 82, 117	
13, 14, 15	8	GRI 305-4	GHG emissions intensity	75, 78, 80, 117	
13, 14, 15	8, 9	GRI 305-5	Reduction of GHG emissions	75, 78, 80, 82, 117	
3, 12	7, 8	GRI 305-6	Emissions of ozone-depleting substances (ODS)	75, 76, 82, 117	
3, 12, 14, 15	7, 8	GRI 305-7	Nitrogen oxides (NO _x), sulfur oxides (SO _x), and other significant air emissions	75, 76, 82, 117	
GRI 306: Waste 2020					
GRI 103: Management approach 2016					
		GRI 103-1	Explanation of the material topic and its boundary	14, 15, 16, 17, 20, 21, 25, 26, 27	
		GRI 103-2	The management approach and its components	9, 14, 17, 19, 21, 25, 26, 27, 30, 32, 37, 87, 88, 116, 117, 118	
		GRI 103-3	Evaluation of the management approach	5, 8, 9, 14, 22, 25, 36, 37, 39, 40, 114, 115, 116, 117, 118	
3, 6, 11, 12	8	GRI 306-1	Waste generation and significant waste-related impacts	21, 75, 76, 87, 88	
3, 6, 11, 12	8	GRI 306-2	Management of significant waste-related impacts	54, 55, 56, 87, 88	

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Relevant SDG	UNGC principle	GRI standard		Page ^a	Omissions
3, 11, 12	8	GRI 306-3	Waste generated	87	
3, 11, 12	8	GRI 306-4	Waste diverted from disposal	87	
3, 11, 12	8	GRI 306-5	Waste directed to disposal	87	
GRI 307: Environmental Compliance 2016					
GRI 103: Management approach 2016					
	8	GRI103-1	Explanation of the material topic and its boundary	14, 15, 16, 17, 20, 21, 25, 26, 27	
	8	GRI103-2	The management approach and its components	9, 14, 17, 19, 21, 25, 26, 27, 30, 32, 37, 75, 76, 77, 90, 116, 117, 118	
	8	GRI103-3	Evaluation of the management approach	5, 8, 9, 14, 22, 25, 36, 37, 39, 40, 114, 115, 116, 117, 118	
16	8	GRI 307-1	Non-compliance with environmental laws and regulations	40, (87)	
Employees					
GRI 401: Employment 2016					
GRI 103: Management approach 2016					
	6	GRI103-1	Explanation of the material topic and its boundary	14, 15, 16, 17, 20, 21, 25, 26, 27	
	6	GRI103-2	The management approach and its components	9, 14, 17, 19, 21, 25, 26, 27, 30, 32, 37, 93, 94, 96, 98, 104, 116, 117, 118	
	6	GRI103-3	Evaluation of the management approach	5, 8, 9, 14, 22, 25, 36, 37, 39, 40, 114, 115, 116, 117, 118	
5, 8, 10	6	GRI 401-1	New employee hires and employee turnover	96, 100	
3, 5, 8		GRI 401-2	Benefits provided to full-time employees that are not provided to temporary or part-time employees	96, 98, 110	
5, 8	6	GRI 401-3	Parental leave	98	
GRI 402: Labor/Management Relations 2016					
GRI 103: Management approach 2016					
	3	GRI103-1	Explanation of the material topic and its boundary	14, 15, 16, 17, 20, 21, 25, 26, 27	
	3	GRI103-2	The management approach and its components	9, 14, 17, 19, 21, 25, 26, 27, 30, 32, 37, 93, 94, 99, 116, 117, 118	
	3	GRI103-3	Evaluation of the management approach	5, 8, 9, 14, 22, 25, 36, 37, 39, 40, 114, 115, 116, 117, 118	
8	3	GRI 402-1	Minimum notice periods regarding operational changes	99	
GRI 404: Training and Education 2016					
GRI 103: Management approach 2016					
		GRI103-1	Explanation of the material topic and its boundary	14, 15, 16, 17, 20, 21, 25, 26, 27	
		GRI103-2	The management approach and its components	9, 14, 17, 19, 21, 25, 26, 27, 30, 32, 37, 93, 94, 103, 104, 116, 117, 118	
		GRI103-3	Evaluation of the management approach	5, 8, 9, 14, 22, 25, 36, 37, 39, 40, 114, 115, 116, 117, 118	
4, 5, 8, 10		GRI 404-1	Average hours of training per year per employee	104	

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Relevant SDG	UNGC principle	GRI standard		Page ^a	Omissions
8		GRI 404-2	Programs for upgrading employee skills and transition assistance programs	103, 104	
5, 8, 10	6	GRI 404-3	Percentage of employees receiving regular performance and career development reviews	95	
GRI 405: Diversity and Equal Opportunity 2016					
GRI 103: Management approach 2016					
	1, 6	GRI103-1	Explanation of the material topic and its boundary	14, 15, 16, 17, 20, 21, 25, 26, 27	
	1, 6	GRI103-2	The management approach and its components	9, 14, 17, 19, 21, 25, 26, 27, 30, 32, 37, 93, 100, 101, 102, 104, 116, 117, 118	
	1, 6	GRI103-3	Evaluation of the management approach	5, 8, 9, 14, 22, 25, 36, 37, 39, 40, 114, 115, 116, 117, 118	
5, 8	6	GRI 405-1	Diversity of governance bodies and employees	33, 101, (91), (93)	
5, 8, 10	1, 6	GRI 405-2	Ratio of basic salary and remuneration of women to men	96	
Safety					
GRI 403: Occupational Health 2018					
GRI 103: Management approach 2016					
		GRI 103-1	Explanation of the material topic and its boundary	14, 15, 16, 17, 20, 21, 25, 26, 27	
		GRI 103-2	The management approach and its components	9, 14, 17, 19, 21, 25, 26, 27, 30, 32, 37, 107, 108, 109, 110, 116, 117, 118	
		GRI 103-3	Evaluation of the management approach	5, 8, 9, 14, 22, 25, 36, 37, 39, 40, 114, 115, 116, 117, 118	
8		GRI 403-1	Occupational health and safety management system	107, 108, 109, 110	
8		GRI 403-2	Hazard identification, risk assessment, and incident investigation	35, 36, 107, 111	
8		GRI 403-3	Occupational health services	110	
8, 16		GRI 403-4	Worker participation, consultation, and communication on occupational health and safety	108, 110	
8		GRI 403-5	Worker training on occupational health and safety	108, 110, 111	
3		GRI 403-6	Promotion of worker health	111	
8		GRI 403-7	Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	107, 110, 111	
8		GRI 403-8	Workers covered by an occupational health and safety management system	107, 110	
3, 8, 16		GRI 403-9	Work-related injuries	108	For confidentiality reasons, we do not give figures for accidents and hours worked by contractors' employees (point b, iii to iv and points c. and d.).
3, 8, 16		GRI 403-10	Work-related ill health	107, 111	

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SASB content index

Evonik uses the Sustainability Accounting Standards Board (SASB) Content Index to provide structured information for investors on SASB-relevant topics. In the industry classification system provided by SASB, Evonik is assigned to the SASB Resource Transformation Chemicals industry standard. The SASB Content Index refers to Evonik's sustainability report, which has been prepared in accordance with the guidelines of the Global Reporting Initiative (GRI) and the respective "Core" option of the GRI Standards [p. 122](#).

SASB-Index

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SASB topic & accounting metric	SASB code	Category	GRI disclosure number	Reference point sustainability report
Greenhouse Gas Emissions				
Gross global scope 1 emissions, percentage covered under emissions-limiting regulations	RT-CH-110a.1	Quantitative	305-1	Greenhouse gas emissions (p. 80–83)
Discussion of long-term and short-term strategy or plan to manage scope 1 emissions, emissions reduction targets, and an analysis of performance against those targets	RT-CH-110a.2	Discussion and analysis	305	Strategy and management (p. 75), Environmental targets (p. 76), Climate change (p. 77), Our targets (p. 90)
Air Quality				
Air emissions of the following pollutants: 1. NO _x (excluding N ₂ O) 2. SO _x 3. Volatile organic compounds (VOC) and 4. Hazardous air pollutants (HAPs)	RT-CH-120a.1	Quantitative	305-7	Other emissions into the air (T12 p. 83)
Energy Management				
1. Total energy consumed 2. Percentage grid electricity 3. Percentage renewable 4. Total self-generated energy	RT-CH-130a.1	Quantitative	302-1-7	Energy data (C28 p. 79), Energy inputs (T09 p. 80)
Water Management				
1. Total water withdrawn 2. Total water consumed, percentage of each in regions with high or extremely high baseline water stress	RT-CH-140a.1	Quantitative	303-3, 303-5	Water data (C29 p. 85), Water intake by source (T13 p. 85)
Number of incidents of non-compliance associated with water-quality permits, standards, and regulations	RT-CH-140a.2	Quantitative	307-1, 419-1	Fines and other sanctions (p. 39) Internal investigations into compliance violations (p. 40)
Description of water management risks and discussion of strategies and practices to mitigate those risks	RT-CH-140a.3	Discussion and analysis	303	Water management (p. 83–86)
Hazardous Waste Management				
Amount of hazardous waste generated, percentage recycled	RT-CH-150a.1	Quantitative	306-2	Waste (T15 p. 87), Waste management (T16 p. 87)

SASB topic & accounting metric	SASB code	Category	GRI disclosure number	Reference point sustainability report
Community Relations				
Discussion of engagement processes to manage risks and opportunities associated with community interests	RT-CH-210a.1	Discussion and analysis	413-1 and 413-2	How we create value for society (p.14 and C05 p.15), Sustainability analysis of our business (p.18–20), Impact valuation (C08 p.21), Stakeholder engagement (C10 p.23), Voluntary commitments (C13 p.30), Biodiversity (p.88–90), Product stewardship (p.68–72), Responsibility within the supply chain (p.43–47).
Workforce Health & Safety				
1. Total recordable incident rate (TRIR) and 2. Fatality rate for(a) direct employees and (b) contract employees	RT-CH-320a.1	Quantitative	403-9	Accident frequency indicator (C39 p.108 and C40 p.108)
Description of efforts to assess, monitor, and reduce exposure of employees and contract workers to long-term (chronic) health risks	RT-CH-320a.2	Discussion and analysis	403-1, 403-2, 403-3, 403-4, 403-5, 403-6, 403-7, 403-8, 403-10	Health protection and promotion (p.109–111), Product stewardship (p.68), Safety (p.107–108)
Product Design for Use-Phase Efficiency				
Revenue from products designed for use-phase resource efficiency	RT-CH-410a.1	Quantitative		2021 findings (p.18–20), CO ₂ eq avoided by using Evonik products (p.58), Sustainable products and solutions for our customers (p.57), Measurability of our sustainability activities (p.18–20), Efficient use of scarce resources/circular economy (p.52)
Safety & Environmental Stewardship of Chemicals				
1. Percentage of products that contain Globally Harmonized System of Classification and Labeling of Chemicals (GHS) Category 1 and 2 Health and Environmental Hazardous Substances 2. Percentage of such products that have undergone a hazard assessment	RT-CH-410b.1	Quantitative		Product stewardship (p.68)
Discussion of strategy to 1. Manage chemicals of concern and 2. Develop alternatives with reduced human and/or environmental impact	RT-CH-410b.2	Discussion and analysis		Product stewardship (p.68)
Genetically Modified Organisms				
Percentage of products by revenue that contain genetically modified organisms (GMOs)	RT-CH-410c.1	Quantitative		Product stewardship (p.72)
Management of the Legal & Regulatory Environment				
Discussion of corporate positions related to government regulations and/or policy proposals that address environmental and social factors affecting the industry	RT-CH-530a.1	Discussion and analysis		Our positions (p.24), Opportunity and risk management (p.34), Opportunity and risk report in the financial report 2021 (p.64)
Operational Safety, Emergency Preparedness & Response				
Process Safety Incidents Count (PSIC), Process Safety Total Incident Rate (PSTIR), and Process Safety Incident Severity Rate (PSISR)	RT-CH-540a.1	Quantitative	306-2	Incident frequency indicator (C41 p.109)
Number of transport incidents	RT-CH-540a.2	Quantitative		Transportation safety and logistics (p.112)

Independent Practitioner's Limited Assurance Report

102-56

Limited Assurance Report of the Independent Auditor Regarding the Sustainability Report¹

To the Executive Board of Evonik Industries AG, Essen:

We have performed an independent limited assurance engagement on the Chapters and Sections marked ✓, except for the disclosures marked as "non-audited", in the Sustainability Report (hereinafter, "SR") of Evonik Industries AG, Essen (hereinafter, "Evonik"), for the period from January 1, 2021 to December 31, 2021.

The contents of the Sections "Sustainability Analysis of Our Business" and "Impact Analysis" contained in the Chapter "Strategy and Growth" are excluded from the assurance engagement and are marked accordingly as "non-audited" in the SR.

Management Responsibilities

The legal representatives of Evonik are responsible for the preparation of the SR in accordance with the reporting criteria.

The reporting criteria comprise in particular:

- The principles and standard disclosures set out in the Global Reporting Initiative (GRI) Sustainability Reporting Standards
- The Corporate Accounting and Reporting Standard (Scope 1 and 2) of the World Resources Institute (WRI)
- The GHG Protocol Standard of the World Resources Institute (WRI) and of the World Business Council for Sustainable

Development (WBCSD), in which the Methodology for accounting for greenhouse gas emissions along the value chain (Scope 3) is closely aligned

- Article 8 of REGULATION (EU) 2020/852 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 18 June 2020 on the establishment of a framework to facilitate sustainable investment, and amending Regulation (EU) 2019/2088 (hereinafter, "EU Taxonomy Regulation") and the supplementing Delegated Acts as well as the interpretation of the wordings and terms contained in the EU Taxonomy Regulation and in the supplementing Delegated Acts by the Company as disclosed in the "Our Sustainability Strategy" Section of the SR

The responsibility of the legal representatives includes the selection and application of appropriate methods to prepare the SR and the use of assumptions and estimates for individual disclosures which are reasonable under the given circumstances. Furthermore, the legal representatives are responsible for the internal controls they deem necessary for the preparation of the SR that is free of – intended or unintended – material misstatements.

The EU Taxonomy Regulation and the supplementing Delegated Acts contain wordings and terms that are still subject to substantial uncertainties regarding their interpretation and for which not all clarifications have been published yet. Therefore, the legal representatives have included a description of their interpretation in the Chapter "Our Sustainability Strategy" in the SR. They are responsible for the validity of this interpretation. Due to the innate risk of diverging interpretations of vague legal concepts, the legal conformity of these interpretations is subject to uncertainty.

BASIS OF REPORTING

Independent Practitioner's Limited Assurance Report

Practitioner Responsibilities

It is our responsibility to express a conclusion with limited assurance on the Chapters and Sections marked with ✓, except for the disclosures marked as "non-audited" in the SR of Evonik.

We conducted our work in the form of a limited assurance engagement in accordance with the International Standard on Assurance Engagements (ISAE) 3000 (Revised): "Assurance Engagements Other Than Audits or Reviews of Historical Financial Information", published by IAASB. Accordingly, we have to plan and perform the assurance engagement in such a way that we obtain limited assurance as to whether any matters have come to our attention that cause us to believe that the company's Chapters and Sections marked ✓ (except for the disclosures marked as "non-audited") in the SR for the reporting period from January 1, 2021 to December 31, 2021, have not been prepared, in all material respects, in accordance with the reporting criteria. We do not, however, issue a separate conclusion for each disclosure. As the assurance procedures performed during a limited assurance engagement are less comprehensive than in a reasonable assurance engagement, the level of assurance obtained is substantially lower. The determination of assurance procedures is subject to the auditor's own judgement.

Within the scope of our engagement, we performed, among others, the following assurance procedures:

- Inquiries of group-level personnel who are responsible for the materiality analysis in order to understand the processes for determining material topics and respective reporting boundaries for Evonik

¹ This text is a translation of the Independent Assurance Report issued in German, solely the German text is authoritative.

- A risk analysis, including media research, to identify relevant information on Evonik's sustainability performance within the reporting period
- Evaluation of the design and the implementation of systems and processes for the collection, processing and monitoring of disclosures, including data consolidation, on environmental, employee and social matters, respect for human rights, and anti-corruption and bribery matters
- Inquiries of group-level personnel who are responsible for determining disclosures on concepts, due diligence processes, results and risks, performing internal control functions and consolidating disclosures
- Inspection of selected internal and external documents
- Analytical procedures for the evaluation of data and of the trends of quantitative disclosures as reported at group level by all sites
- Evaluation of local data collection, validation and reporting processes as well as the reliability of reported data based on a sample of sites in four locations
- Evaluation of the process for the identification of taxonomy-eligible economic activities and the corresponding disclosures in the SR
- Assessment of the overall presentation of the disclosures

The legal representatives must interpret vague legal concepts in order to be able to compile the relevant disclosures in accordance


with Article 8 of the EU Taxonomy Regulation. Due to the innate risk of diverging interpretations of vague legal concepts, the legal conformity of these interpretations and, correspondingly, our assurance thereof are subject to uncertainty.

In our opinion, we obtained sufficient and appropriate evidence for reaching a conclusion for our assurance engagement.

Independence and Quality Assurance on the Part of the Auditing Firm

In performing this engagement, we applied the legal provisions and professional pronouncements regarding independence and quality assurance, in particular the Professional Code for German Public Auditors and Chartered Accountants (in Germany) and the quality assurance standard of the German Institute of Public Auditors (Institut der Wirtschaftsprüfer, IDW) regarding quality assurance requirements in audit practice (IDW QS 1).

Conclusion

Based on the procedures performed and the evidence obtained, nothing has come to our attention that causes us to believe that the Chapters and Sections marked , except for the disclosures marked as "non-audited", in the Sustainability Report of Evonik Industries AG for the reporting period from January 1, 2021 to December 31, 2021, have not been prepared, in all material respects, in accordance with the reporting criteria.

BASIS OF REPORTING

Independent Practitioner's
Limited Assurance Report

Restriction of Use/General Engagement Terms

This assurance report is issued for the purposes of the Executive Board of Evonik Industries AG, Essen only. We assume no responsibility with regard to any third parties.

Our assignment for the Executive Board of Evonik Industries AG, Essen, and professional liability as described above were governed by the General Engagement Terms for Wirtschaftsprüfer and Wirtschaftsprüfungsgesellschaften (Allgemeine Auftragsbedingungen für Wirtschaftsprüfer und Wirtschaftsprüfungsgesellschaften) in the version dated January 1, 2017 (https://www.kpmg.de/bescheinigungen/lib/aab_english.pdf). By reading and using the information contained in this assurance report, each recipient confirms notice of the provisions contained therein, including the limitation of our liability as stipulated in No. 9 and accepts the validity of the General Engagement Terms with respect to us.

Düsseldorf, February 18, 2022

KPMG AG Wirtschaftsprüfungsgesellschaft

Brandt ppa. Dietrich
Wirtschaftsprüferin
[German Public Auditor]

Responsibility—an integral part of our business for more than 140 years ⓘ 102-12

C43

Sustainability has deep roots in the commitment of our predecessor companies. At first, the focus was on **social policy and codetermination**.

- 1875** Insurance coverage for sickness and permanent incapacity to work^a
- 1884** Introduction of the eight-hour workday^a
- 1886** Establishment of a pension fund^a
- 1898** First staff committee^a

In the 1970s, the focus shifted to **environmental protection and safety**.

- 1979** Introduction of an environmental hotline for employees and local residents^c
- 1995** Joined Responsible Care^{®a}
- 2002** All executives in operating units agree targets for occupational safety^d
- 2004** Ambitious environmental targets since 2004^d
- 2013** Start of Safety at Evonik to establish a safety culture

Extensive **governance and compliance activities**.

- 2004** Code of Conduct^e
- 2014** Code of Conduct for Suppliers
- 2016** Executive Board Policy Statement on Human Rights
- 2017** Externally run whistleblower system

Dialogue with stakeholders is becoming increasingly important.

Since **2011**, various formats have been introduced for dialogue with stakeholders

- 2016** Start of the Evonik Perspectives stakeholder conferences

2018
Sustainability Strategy 2020+

2017
First impact valuation evaluates the impact of our business from an economic, ecological, and social perspective



Evonik's first full sustainability report



2011
Founding member of the Together for Sustainability initiative



1:10.5 jobs
One Evonik employee secures an average of **10.5 jobs** in the value chain



Employee engagement and creativity have always been important.

- 1939** Introduction of mailboxes for suggestions on improvements^b
- 2009–2019** 1,100 ideas submitted by our employees lead to savings of €15 million in the cost of energy, wastewater, waste disposal, and raw materials



Sustainability becomes a **business activity** and unlocks opportunities for growth.

- 1994** Rising demand for products with a reduced environmental impact such as hydrogen peroxide or silica and silanes for "green" tires^a
- 2016** First sustainability analysis of our business



Evonik is involved in major **sustainability networks and initiatives**.

- 2002** Member of the World Business Council for Sustainable Development
- 2009** Signature of the UN Global Compact
- 2013** Start of involvement in the Chemie³ initiative



2017
First analysis of Evonik's contribution to the UN Sustainable Development Goals (SDGs)

2019
Executive board adopts the Sustainability Strategy 2020+, including ambitious environmental targets

2020
Integration of sustainability into the strategic management process

2021
Development of new targets and measures as part of the climate and sustainability strategy

^a Former Degussa AG (Frankfurt am Main). | ^b Evonik Röhm GmbH. | ^c Former Hüls GmbH. | ^d Former "new" Degussa AG (Düsseldorf). | ^e Replaced the previous Compliance Rules. All elements of this chart are provided as examples.

Principal locations 102-4

Principal locations ^a

No. of employees		2019 ^b	2020 ^b	2021
Europe, Middle East & Africa				
Marl	Germany	7,111	7,098	6,996
Hanau	Germany	3,185	3,335	3,271
Essen (Goldschmidtstr.)	Germany	1,802	1,851	1,934
Darmstadt	Germany	1,312	1,286	1,282
Rheinfelden	Germany	1,157	1,190	1,176
Antwerp	Belgium	1,036	1,024	1,049
Wesseling	Germany	1,138	1,087	1,016
Essen (Rellinghauser Str.)	Germany	810	821	836
Lülsdorf	Germany	510	524	527
Krefeld	Germany	513	487	473
Herne	Germany	386	396	396
Witten	Germany	283	264	253
Slovenská Ľupča	Slovakia	225	219	229
Steinau	Germany	209	221	228
Ham	France	193	186	216
Lenzing	Austria	141	161	187
Dossenheim	Germany	173	175	179
Offenbach	Germany	166	166	169
Arifiye	Turkey			123
Weiterstadt	Germany	112	114	116
Künsebeck	Germany	115	102	102
Asia-Pacific				
Shanghai Xingzhuang	China	718	719	734
Singapore	Singapore	652	637	613
Shanghai MUSC	China	422	414	413
Nanning	China	337	350	351
Nanping	China	342	343	335
Selangor	Malaysia	183	215	277
Dombivli	India	276	277	274
Taoyuan	Taiwan	163	157	159

T34

No. of employees		2019 ^b	2020 ^b	2021
Mumbai	India	146	140	152
Yokkaichi	Japan	138	141	140
Tokyo	Japan	146	143	138
Liaoyang	China	143	140	138
Changchun	China	142	139	133
Nanjing	China	114	111	113
Qingdao	China	114	109	108
North America				
Mobile, AL	USA	818	792	745
Lafayette, IN	USA	629	658	679
Allentown, PA	USA	235	262	239
Parsippany, NJ	USA	302	296	218
Birmingham, AL	USA	166	167	171
Mapleton, IL	USA	158	165	160
Greensboro, NC	USA	147	147	159
Etowah, TN	USA	140	141	137
Hopewell, VA	USA	128	121	122
Richmond, VA	USA	138	132	109
Tonawanda, NY	USA		116	106
Blair, NE	USA	96	107	105
Philadelphia, PA	USA		114	
Little Rock, AR	USA		111	
Bayport, TX	USA		106	
Central & South America				
São Paulo	Brazil	196	190	189
Americana	Brazil	119	123	131
San José	Costa Rica	86	104	117
Castro - Parana	Brazil	103	103	283

As of December 31 of the respective year.

^a Based on Evonik's regions, as revised in 2020. Contains sites with more than 100 employees. The table covers 86 percent of Evonik employees.

^b Continuing operations only (excluding the methacrylates business).

Ratings and indices



Morgan Stanley Capital International (MSCI) gave Evonik an AA rating for its sustainability performance in 2021 for the first time. Evonik has therefore moved into the leader category. In previous years, it received four A ratings from MSCI.



An analysis by the Sustainalytics rating agency ranks Evonik's sustainability performance among the top 10 percent of the roughly 130 chemical companies evaluated.



CDP Climate Change again awarded us a grade of A-, and CDP Water Security awarded us a grade of B. We also participated in CDP Forest, where we were awarded a grade of B. In addition, Evonik was ranked as a CDP Supplier Engagement Leader in 2021.

www.evonik.com/CDP-Climate-Change



Evonik's sustainability performance is rated B- by ISS-ESG. Evonik therefore retains its prime status, the highest level awarded, ranking it among the top 10 percent of companies in the chemical sector.



As a founding member of the Together for Sustainability (TfS) initiative, Evonik drives forward transparency and sustainability in the supply chain and is subject to annual assessments. In 2021, the EcoVadis rating agency, partner of TfS, awarded us a platinum rating for our sustainability performance for the first time.



FTSE4Good

Evonik is a member of the FTSE4Good Europe Index and the FTSE4Good Developed Index. These index families of the London-based FTSE Group rate companies in categories such as environmental management, human and labor rights, health and safety, sustainability in the supply chain, and corporate governance.



Evonik is listed in the STOXX® Global ESG Leaders Index. This index lists the best 25 percent of sustainable companies in the investment universe on transparency in environmental, social, and governance performance.



In the Euronext index family of VigeoEiris, which evaluates corporate ESG performance, Evonik is included in the Europe 120 and Eurozone 120 indices. The evaluation is based on up to 330 indicators covering 38 sustainability criteria.



Evonik is now included in the Solactive Europe Corporate Social Responsibility Index. The composition of this index is reviewed every six months using the VigeoEiris ESG methodology. This covers ecological and social aspects and corporate governance.

FURTHER INFORMATION

Ratings and indices, Sustainability awards

Sustainability awards



The German Energy Agency (dena) presented Evonik and the German energy company Energiedienst AG with the Energy Efficiency Award 2021 for their joint exhaust heat project at the Rheinfelden site in Germany.



Consumer reporting company ÖGVS – Gesellschaft für Verbraucherstudien mbH presented its first GreenTech Award to Evonik Fibres GmbH, Schörföfling am Attersee (Austria).



The League of American Communications Professionals (LACP) presented Evonik with the Vision Award in platinum for its sustainability report 2020.



Evonik's sustainability report 2020 received the ARC Award in silver in the category Design/Graphics.



Our sustainability report 2020 won gold in the FOX Finance Awards and silver in the FOX Visuals Awards.

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Credits 102-51, 102-53

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This report contains forward-looking statements based on the present expectations, assumptions, and forecasts made by the executive board and the information available to it. These forward-looking statements do not constitute a guarantee of future developments and earnings expectations. Future performance and developments depend on a wide variety of factors which contain a number of risks and unforeseeable factors and are based on assumptions that may prove incorrect.

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