



Sustainability review

In this company of great people, we work towards a world that lasts forever and produce the most sustainable stainless steel with the lowest carbon footprint in the world. Our people and their expertise is what separates us from other companies.



“More than 90% of material that goes into our stainless steel is recycled, and we are continuously looking for ways to minimize our environmental impact.”

Sustainability at Outokumpu

Sustainability is the beating heart of everything we do at Outokumpu.

Outokumpu's sustainable stainless steel helps to create a world that lasts forever.

Our product is at the very core of our sustainability approach. Stainless steel helps to build a more sustainable future as it is 100% recyclable, efficient and long-lasting. The cornerstone of our business is enabling growth and innovation through sustainable stainless steel solutions. Our vision is to become our customer's first choice in sustainable stainless steel.

However, it is not only what we do, but also how we do it. We are the industry leader in sustainability as our stainless steel has the lowest carbon footprint in the industry when taking into account all indirect emissions, including raw materials. We also lead the industry in terms of the circular economy. The recycled material content of our stainless steel is more than 90% and we are continuously looking for ways to minimize our environmental impact.

Sustainability strategy and targets

Sustainability at Outokumpu is founded on good governance and on three pillars: environmental, economic, and social, all of which need to be in balance. In 2022, we continued to implement our sustainability strategy which was updated in 2021. The updated sustainability strategy was based on our most recent materiality analysis and reflects the growing importance of sustainability and the possibilities it offers to our business.

As a part of the new sustainability strategy, we launched more ambitious goals for our sustainability. Our greenhouse gas emission reduction target was increased, and we committed to the Science-Based Target initiative's (SBTi) 1.5°C climate ambition. Outokumpu's approved SBTi target requires a 42% CO₂ emission reduction across all scopes by 2030 compared to the 2016 baseline. This translates into a 30% CO₂ emission reduction compared to the 2020 level. Outokumpu is working closely with the SBTi to define the decarbonization approach for the steel sector.

In 2022, we announced new ambitious target for energy efficiency in the next two years. By the end of 2024, Outokumpu now aims to improve its energy efficiency by 8% across the group compared to the January–September 2022 level.

Outokumpu's other sustainability targets include improved safety and organizational health, strengthening diversity, equity and inclusion, supply chain sustainability, zero environmental incidents, and high material recycling.

Highlights in 2022

Outokumpu launched a new emission-minimized product line Circle Green in June. It has the smallest emission intensity in the world, up to 92% lower carbon footprint than the global average. The unprecedented emission reduction was achieved with improvements throughout the whole stainless steel production chain. The first batch was produced in Tornio, Finland, and was delivered to one of our strategic customers, Fiskars Group, for use in cookware.

During 2022, Outokumpu started the certification process for the ResponsibleSteel standard for its operating sites in business area Europe. ResponsibleSteel is a standard that was developed to recognize steel sites that are being operated in a responsible manner with the focus on the most material ESG issues identified and agreed upon by ResponsibleSteel members and stakeholders.

In September, Outokumpu announced that it is investigating a significant investment in a biocoke and biomethane plant in Tornio, Finland. With this investment Outokumpu aims to significantly reduce its direct CO₂ emissions and increase energy self-sufficiency in Finland.

Outokumpu's product-specific carbon footprints for its stainless steel products produced in Europe were published in November. The calculations are based on continuous production data. Outokumpu is the first stainless steel producer able to provide product-specific footprint data.

Several supplier visits with sustainability topics in focus were conducted during the year. Outokumpu also published a Human Rights Policy as well as a Supplier Code of Conduct during the year.

To strengthen organizational health and wellbeing, Outokumpu started to conduct regular employee pulse surveys during the second half of the year. The first survey focused on employee engagement and the second on safety culture. In May, Outokumpu conducted a company-wide inclusion survey which was used as a basis for creating Outokumpu's roadmap and targets in diversity, equity and inclusion.

Our reporting is based on material topics

Outokumpu regularly conducts a materiality analysis to map our stakeholders' expectations and to assess our business impact on sustainability. We updated our materiality analysis in 2021 to further improve our focus on the sustainability topics that are most important for our stakeholders and operations. The analysis also guides our reporting on the relevant topics. The detailed



We achieved unprecedented emission reduction in our Circle Green product. The first batch was delivered to one of our strategic customers, Fiskars Group.

materiality analysis study is updated every three years. The materiality analysis will be updated in 2024.

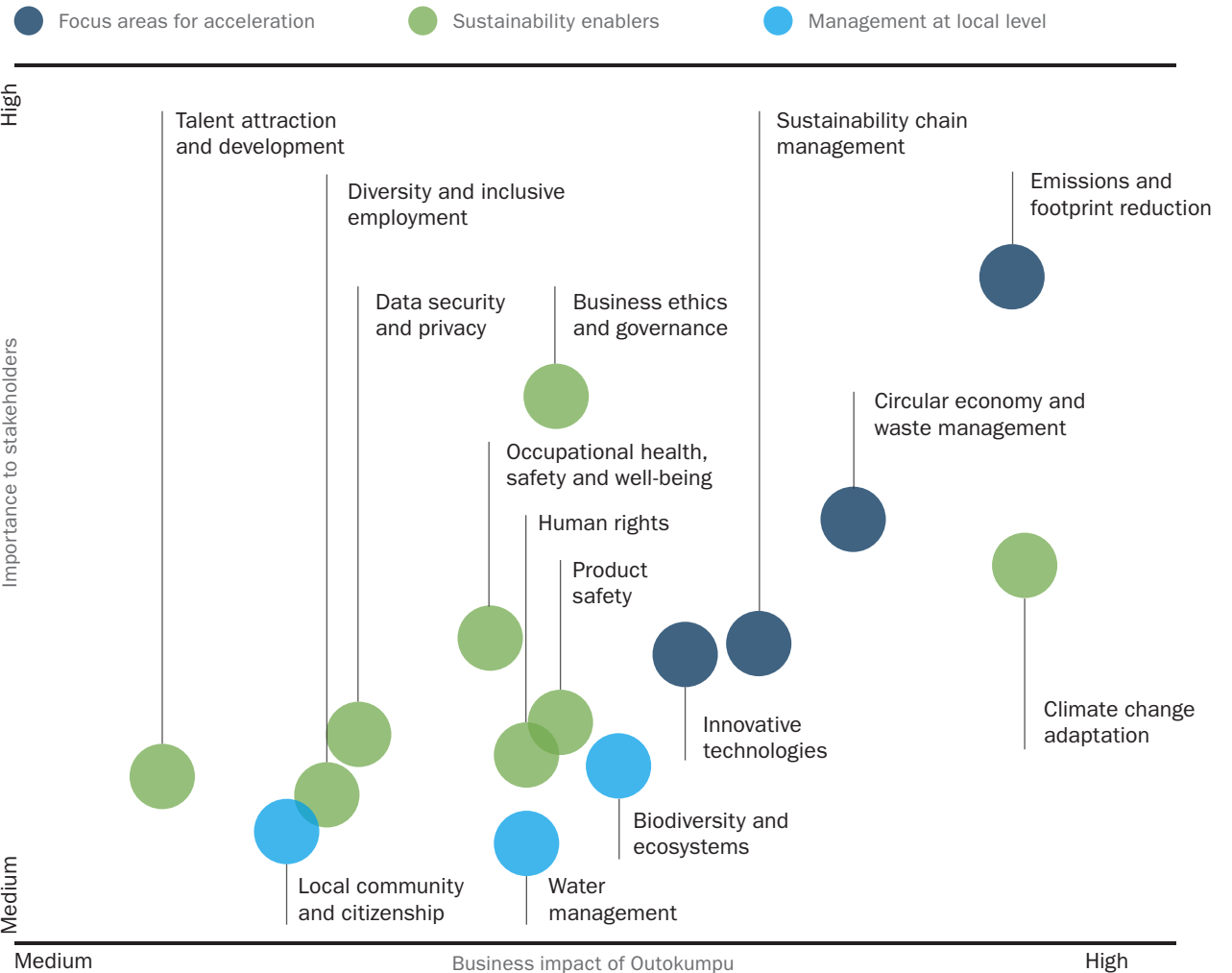
The analysis is applying double materiality, meaning both the impact of and on Outokumpu's business were assessed. As a basis for the materiality analysis, an external advisor conducted an extensive data study of the emerging trends in the steel industry and compared these trends with the material topics of Outokumpu's main peers, customers and suppliers. This analysis was complemented with an overview of material issues found in global sustainability frameworks. Additionally, interviews with customers, suppliers and other stakeholders such as investors, employees and non-governmental organizations were conducted to gain a deeper insight into the relevant stakeholder groups.

Based on the research and internal workshops, a list of the 15 most material topics was compiled. The topics were ranked and prioritized based on the stakeholder rankings and the business impact of Outokumpu on these issues.

Four topics were defined as focus areas for acceleration based on alignment with business model and high potential for differentiation. Sustainability enablers have been defined to have a lower level of potential for differentiation. Topics defined for management at local level have value creation potential from execution on the local operating level.

The selection of material topics covers both inside-out topics that related to corporate strategy as well as outside-in topics that reflect stakeholder concerns. Topics are material when they have the ability to affect Outokumpu's operational results and the company has the ability to control and influence the topic.

Materiality matrix



Sustainable Development Goals in our focus

We are a signatory to the United Nations' Global Compact initiative, and we have committed to the UN's Sustainable Development Goals (SDGs). We contribute to several SDGs either through the way we operate or through our products.

Our focus on the SDGs is aligned according to our materiality analysis. Our main focus is on the following six goals:



United Nations Global Compact



Goal 7: Affordable and clean energy

Products: Stainless steel is the only long-lasting material for many applications of clean energy, e.g. solar farms and biofuels. **Operations:** We follow sustainable energy supply practices to gain secure and stable energy. **Highlight in 2022:** Share of low-carbon electricity was about 86%.



Goal 8: Decent work and economic growth

Products: Stainless steel is a key element in building a modern, efficient and well-being society. **Operations:** We contribute to the community well-being through direct and indirect employment, taxes and other involvement. **Highlight in 2022:** We employed directly in total over 8,500 employees and achieved high engagement rate in our company-wide people pulse survey.



Goal 9: Industry, innovation and infrastructure

Products: Due to its excellent properties, stainless steel is a key material in sustainable industrialization and modern infrastructure. **Operations:** We have a long history in developing new steel grades. We work closely with customers to find the most sustainable material solution. **Highlight in 2022:** We launched a new product line Circle Green with the industry's lowest carbon footprint.



Goal 12: Responsible consumption and production

Products: Our stainless steel has the highest recycled content. Stainless steel is also the single most recycled material globally. **Operations:** Our business is based on circular economy. Our mills are among the largest material recycling facilities in the world. **Highlight in 2022:** We achieved record-high recycled material rate of 94%.



Goal 13: Climate action

Products: Our stainless steel reduces our customers' overall carbon footprint by 10 million tonnes annually. **Operations:** Our carbon footprint is less than 30% of the global industry average. We are committed to reaching carbon neutrality by 2050. **Highlight in 2022:** We met the science-based climate target for 2022 and launched new product-specific carbon footprint calculations.



Goal 17: Partnerships for goals

Products: We are working together with our customers and partners to minimize the environmental impact of our stainless steel products. **Operations:** We are committed to global sustainability frameworks and to partnering with our whole value chain to drive sustainable development. **Highlight in 2022:** We partnered with our customers Fiskars Group and Klöckner & Co. to publish the new product line Circle Green.

Commitment to global frameworks and standards

Sustainability is integrated into all our operations, activities, and decision making. The most important policies guiding Outokumpu's sustainability management are the Group's Code of Conduct and the Corporate Responsibility Policy. We expect our business partners and suppliers to follow similar standards. All of our policies are available at outokumpu.com.

All of Outokumpu's production sites are certified according to quality ISO 9001 and environment ISO 14001 management systems, including energy efficiency targets. The functioning of the systems is monitored by both internal and external audits. These management systems are used to implement sustainability issues on the local level. Outokumpu complies with international, national, and local laws and regulations, and respects international agreements concerning human and labor rights, such as the International Bill of Human Rights, the UN Global Compact and the ILO Declaration on Fundamental Principles and Rights at Work. Outokumpu also implements the UN Guiding Principles on Business and Human Rights in its corporate policies.

Management of sustainability

Outokumpu's Board of Directors approves Outokumpu's sustainability agenda and targets. On the Group level, sustainability is managed by the Group Sustainability Team headed by the Vice President – Sustainability who reports to the Chief Technology Officer. The Outokumpu Leadership Team regularly follows the progress of Outokumpu's sustainability agenda. The business areas and functions are responsible for ensuring that operations within their own organizations and business lines are conducted in a responsible manner and that monitoring, data collection and reporting are duly carried out.

Outokumpu has also an ESG Advisory Council consisting of four external advisors:



- Pia Theresa Duerrschnabel, Director of Sustainability, Wieland Group
- Antoine Allanore, Professor of Metallurgy, Massachusetts Institute of Technology (as of Dec 2022)
- Sirpa Juutinen, Independent Sustainability Advisor
- Julia Woodhouse, Board member, member of the Audit Committee, Outokumpu
- Lucas Joppa, Chief Environmental Officer, Microsoft (until Dec 2022)

The council's role is to challenge and comment the company's sustainability strategy and actions as well as facilitate dialogue between Outokumpu and its stakeholders. In 2022, the council discusses topics such as decarbonization, Circle Green and other commercial initiatives, supply chain sustainability and human rights as well as Outokumpu's ResponsibleSteel certification process.

Sustainability is integrated into all our operations, guided by our Code of Conduct and Responsibility Policy. We expect our business partners and suppliers to follow similar standards.

Sustainability performance in 2022

Outokumpu has set challenging goals and key sustainability performance indicators. We also follow up and measures other selected economic, social and environmental indicators.

All sustainability figures are available on our sustainability data tool [↗](#)

Energy efficiency

Energy efficiency decreased this year due to lower production volumes but several improvement projects were started.

[More on energy efficiency ↗](#)

Target 3.06 MWh/t
Result 3.15 MWh/t

No significant environmental incidents

We haven't had any significant environmental incidents for years. We follow up on medium incidents and permit breaches.

[More on our environmental impact ↗](#)

Target 16
Result 14 (7 of which were permit breaches)

Recycled material content on a very high level

Our stainless steel contains the highest rate of recycled material content in the industry. Recycled material includes steel scrap and recycled metals from other residuals.

[More on resource efficiency ↗](#)

Target 92,5%
Result 93,9%

Reduced CO₂ emissions intensity

Our target is to reduce our CO₂ emissions per tonne stainless steel by 42% by 2030 compared to the baseline of 2016.

[More on our actions on climate change ↗](#)

Target 1.71 CO₂/t
Result 1.70 CO₂/t

Employee engagement on a good level

Employee engagement index score was 79 in the latest pulse survey, above the average of the benchmark companies and well in-line with previous results.

[More on our people ↗](#)

Result 79

New DE&I roadmap and targets

During 2022, we created a roadmap to strengthen diversity, equity and inclusion. Our new target is to have 30% diverse representation in our leadership teams.

[More on our people ↗](#)

Target 30%

Work-related injuries continued to decline

Our total recordable injury frequency rate (TRIFR, per million working hours) continued to decline and was 1.8 compared to 2.1 in 2021.

[More on safety and health ↗](#)

Target < 2.0
Result 1.8

Ethics and compliance trainings conducted

In 2022, we relaunched company-wide eLearning on anti-corruption. 99% of administrative employees completed the training.

[More on ethics and compliance ↗](#)

Result 99%



Environment

We constantly research and develop new ways of operating to reduce the environmental impact of stainless steel and its production.

“Our growing environmental efficiency is based on long-term efforts and continuous improvement, and our aim is to minimize our emissions and environmental impacts.”

Decarbonizing for the climate

Stainless steel helps to mitigate climate change as it is a durable, long-lasting, and endlessly recyclable material. In addition to offering solutions with a low carbon profile, we have ambitious goals to reduce our own carbon emissions.

Global megatrends such as population growth and accelerating mobility and urbanization have resulted in increased carbon emissions and climate change. Stainless steel can help to build solutions and infrastructure for a more sustainable world.

Stainless steel produced by Outokumpu has the lowest total carbon footprint in the industry, and we help our customers to reduce their carbon footprints. Key reasons for our low carbon footprint are having our own ferrochrome, high recycled material content and the use of low-carbon electricity.

In 2022, we launched a new product line, Circle Green, which has the smallest emission intensity in the world, up to 92% lower carbon footprint than the global average. During the year, we also published product-specific carbon footprints that help our customers to provide more sustainable solutions to the market.

“We are committed to limiting global warming to below 1.5°C. By working closely with our customers, we help them to develop solutions that further decrease their carbon footprint and reduce burden on climate.”

We have committed to reducing our own emissions throughout our whole value chain. The keys to reducing our own carbon emissions are to increase our energy efficiency and the use of low-carbon energy sources. We are also working closely with our suppliers and partners to reduce emissions.

Committed to the 1.5 degree ambition

We are committed to the Science Based Targets initiative’s ambition of keeping global warming below 1.5°C and our new climate targets were approved by the initiative in 2021.

Outokumpu’s near-term science-based target is to reduce direct and indirect emissions as well as our supply chain emissions (scopes 1, 2 and 3) by 42% per tonne of stainless steel by 2030 from a 2016 base year. This translates into a 30% CO₂ emission intensity reduction compared to the 2020 level.

This target follows the well-below 2°C scenario convergence criteria of the steel industry’s decarbonization approach, as no revised approach is available, and the electricity decarbonization approach, where the specific emission reduction target is 95% by 2050.

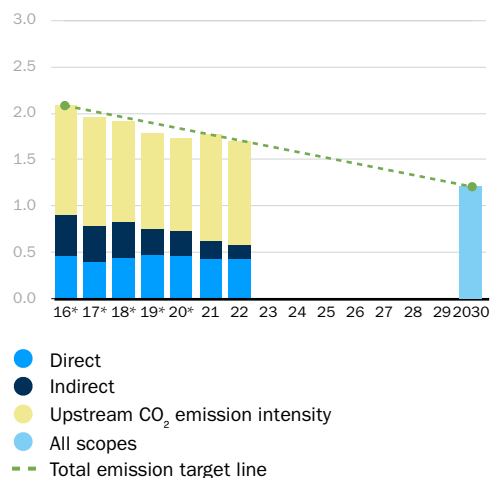
The updated targets cover Outokumpu’s value chain from raw materials to own production and delivery. In the long-term, Outokumpu is committed to reaching carbon neutrality in our own operations by 2050.



Our Circle Green product line has the smallest emission intensity in the world. Fiskars was the first of our customers to use it in their production of cookware.

Energy efficiency and recycled steel reduce emissions.

Outokumpu's CO₂ emission intensity, tonnes of CO₂ per tonne steel



The restructuring resulted in a recalculation of the baseline and in 2% higher emission intensity figures.

* Including discontinued operations

In 2022, Outokumpu divested its Long Products operations. The impact of this structural change was limited to 2% increase in the base year emissions and did not impact the approved SBT target.

Where do our emissions come from?

The greenhouse gas emissions from Outokumpu operations are limited to CO₂ emissions. These emissions come directly from production (scope 1), indirectly from the use of electricity (scope 2) and from upstream CO₂eq emissions mainly from the use of materials (scope 3).

Direct emissions originate from the carbon content of our raw materials and from the use of fuels. Our production has decreased by 2% compared to new structure baseline, but direct emission intensity has decreased by 5% compared to base year thanks to improving energy efficiency, replacing fossil fuels with lower-emission options and digitalization.

Indirect emissions in scope 2 are caused by the use of electricity. Emission intensity from electricity use were reduced by about 66% compared to the base year mainly due to increased use of low-carbon electricity. Electricity emissions are reported as market-based emissions and also published as location-based emissions with the specific emission factors for electricity published by the country statistics.

Scope 3 emission intensity, originating mainly from the use of raw materials, decreased by 5% compared to the base year. The reduction was mainly supported by the high share of recycled material content in our production, 93.9%.

Scope 3 emissions from material use are, for example, ferroalloys (except ferrochrome which is included mostly in scopes 1 and 2) as well as lime and dolomite, downstream transportation and, to a lesser extent, from some other sources. Emissions arising from externally used process gas and external services are included in scope 3 emissions. A certain amount of slabs from the divested meltshops are processed in our operations. This

amount is seen as own crude steel production in CO₂ emission intensity calculations.

At the moment, there are no estimation methods for the complex downstream use emissions of stainless steel available. External case studies indicate CO₂ net savings from steel use in life cycle assessments.

Reducing our carbon footprint

Our total company carbon profile, including upstream emissions, is the lowest in the industry. As stainless steel production is energy intensive, we continuously strive to make our operations more energy efficient and to maximize the use of low carbon electricity and recycled materials in our operations. These are the main factors in reaching even lower CO₂ emissions and reducing upstream emissions.

We are also working with our raw material suppliers to decrease our upstream emissions. We are in the process of integrating CO₂ emissions into purchase decision making and working on innovations across industries to discover new ways of reducing CO₂ emissions.

In 2022, the total specific CO₂eq emissions reduced by 18.4% compared to the baseline of 2016. Key drivers for reduced emissions were the increased energy efficiency and the record high level of recycled material content. Scope 3 emissions were negatively influenced by the external ferrochrome that was purchased during the year and higher e-factors for some raw materials.

In 2022, Outokumpu consumed overall 25,033 GJ of primary fuels and electricity with a decrease due to lower production. The overall energy intensity increased from 10.2 to 10.5 GJ per tonne crude steel.

See all data on CO₂ emissions in the sustainability data tool on [Outokumpu's website](#)

Low-carbon roadmap

Outokumpu has developed a roadmap to reach our ambitious climate targets. Electric arc furnaces, in use at our mills, are the best available technique for stainless steel production. The continuous work to increase energy and material efficiency, the amount of recycled material and the amount of low-carbon electricity are currently the main drivers. In addition to these, several other projects have also been identified.

In 2022, we announced a new ambitious target for energy efficiency within the next two years. Until the end of 2024, Outokumpu prioritizes investments in energy efficiency and aims to improve the energy efficiency run-rate by 8% across the Group compared to the January–September 2022 level. Planned energy efficiency improvements will reduce scope 1 and 2 emissions substantially.

The strategy to further reduce the CO₂ emissions of electricity is to expand the low-carbon electricity supply, invest in renewable energy projects and buy certificates. During 2021–2022, Outokumpu announced altogether three new supply agreements for wind power in Europe. In 2022, Outokumpu bought guarantees of origin for 33% of electricity from the energy producers, all used in the EU area.

Implementation of various digitalization projects are estimated to help increase yield, energy and material efficiency in our operations which directly impact our CO₂ emissions.

In the Tornio mill, the majority of direct CO₂ emissions originate from coke which is used as a reductant in the ferrochrome production. For the short-term target, a significant share of fossil coke is to be replaced by biocoke and this would reduce a notable amount of CO₂ emissions in Tornio. In the long run, direct reduction for ferrochrome could replace completely the use of coal-based reductants, which are being studied but no deployable technology is yet available.



In September, Outokumpu announced that it is planning an investment in a biocoke and biomethane plant at its stainless-steel production site in Tornio, Finland. This large-scale biocoke project has now proceeded to a phase where Outokumpu is applying for investment support of EUR 25 million. If realized, this project would potentially reduce CO₂ emissions by more than 200,000 tonnes per year.

Most direct CO₂ emissions come from the use of heating fuels, i.e. natural gas, propane and a small amount of oil. In the long run, these fuels could be replaced either by induction heating or by the use of carbon-neutral fuels, such as biogas. The scenario for the short-term target includes a change to lower emission fuels, such as replacing propane with natural gas where reasonable and plans to use carbon-neutral biofuels in some operating sites.

A further option to reduce CO₂ emissions in the atmosphere is the carbon capture and storage/utilization (CCS/CCU). Slag use in CCU is seen as one of the most potential techniques to reduce direct CO₂ emissions. Flue gas from own processes could be used in accelerated carbonation technique and outcome would be carbonated slag product replacing cement that can be utilized as construction material.

Magnesium-rich mine tailings can be utilized in CCU by using technology developed by Åbo Akademi University. During 2022–2024, the aim is to pilot the technique and find applications for magnesium-rich residues in carbonation. The project consortium has several industrial partners, institutes and universities involved and it is funded by Business Finland.

Reducing indirect and transport emissions

Close to 70% of the scope 3 emissions originate from material use such as ferronickel, burnt lime and dolomite as well as other alloying elements. Alloying elements are used to generate the different grades and quality of stainless steel. The roadmap for reducing scope 3 emissions follows two strategic approaches.

For the short-term target raw material purchasing is taking the carbon footprint of the supplier into account to align the purchasing to suppliers with lower carbon emissions. The second approach is the increase of recycling as steel scrap and recycled metals from any waste management can replace raw material use. The amount of scrap depends on the availability of suitable scrap.

Outokumpu's low-carbon roadmap also contains projects to reduce the transport emissions. Two projects focus on switching from road transport to electric train transport. Outokumpu cooperates with local communities to realize the projects together.

Raw material purchasing takes suppliers' carbon footprint into account.



Biocoke to reduce climate emissions

As a part of its ambitious climate actions, Outokumpu announced plans in September 2022 to invest in a biocoke and biomethane plant at the Tornio site in Finland.

If realized, this project would significantly increase energy self-sufficiency in Finland. It also has the potential to reduce CO₂ emissions by more than 200,000 tonnes per year. This project significantly supports the Finnish and European energy and climate targets for 2030.

“The new biocoke and biomethane plant would show that it is possible to produce a new raw material from the forest industry waste that is currently burned for low-efficiency energy creation. Biocoke could replace the coke we currently import and which is used as reductant in our ferrochrome production process. The usage of the forest waste instead of solid wood, and the ability to produce a significant amount of biomethane in that process is an example of our innovative capabilities. The production of biomethane enables us to become more independent of external fossil fuels,” says Juha Erkkilä, Outokumpu’s Head of Sustainability.

Reporting aligned with the TCFD recommendations

Outokumpu acknowledges the recommendations from the Task Force on Climate-related Financial Disclosures (TCFD) and the underlying framework and acknowledges that there are financial impacts in a 2°C or lower transitions scenario. Outokumpu has performed a scenario analysis according to the stated policies scenario and a sustainable development scenario analysis in line with the 1.5 degree ambition of the Science Based Targets initiative. As soon as a steel sector decarbonization approach to net-zero scenario is available it will be taken for further scenario analysis.

More information in the Risks and opportunities and Review by the Board of Directors.

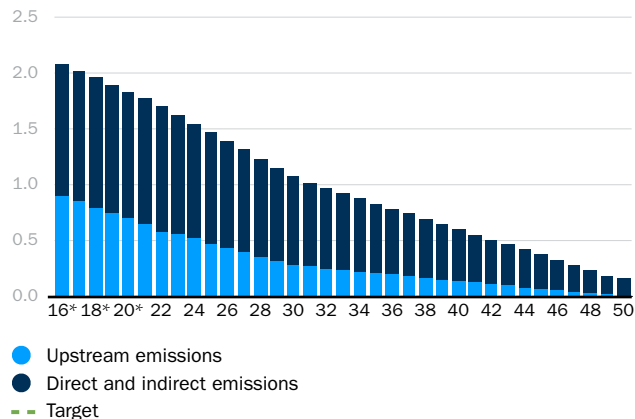
Climate change scenario analysis

The stated policies scenario takes into account countries' energy and climate-related policy commitments, including nationally determined contributions under the Paris Agreement. These provide a baseline scenario against which we assess the additional policy actions and measures needed to achieve the sustainable development scenario (SDS). The SDS sets out the major changes that would be required to reach the main energy-related goals of the United Nations Sustainable Development Agenda, including an early peak and subsequent rapid reduction in emissions, in line with the Paris Agreement, universal access to modern energy by 2030 and a dramatic reduction in energy-related air emissions. The trajectory for emissions in the sustainable development scenario of IEA is consistent with reaching global "net-zero" CO₂ emissions for the energy system as a whole by around 2070. (Source: International Energy Agency or IEA Iron and Steel Technology Roadmap, 2020)

To translate the steel industry scenarios to the stainless steel production, it is assumed that the emission intensity of the steel sector is the same as the intensity of the stainless steel production, including scope 3 emissions. The target year of the scenarios is set to 2050 in line with the company's carbon neutrality target. The assumption

Area	Recommended TCFD disclosures	Source of information in reporting
Governance		
Disclose the organization's governance around climate-related risks and opportunities.	a) Describe the board's oversight of climate-related risks and opportunities.	Sustainability at Outokumpu SR 33, FS 125
	b) Describe management's role in assessing and managing climate-related risks and opportunities.	Sustainability at Outokumpu SR 33, Risks and opportunities AR 17-27, FS 125, GC 104-108
Strategy		
Disclose the actual and potential impacts of climate-related risks and opportunities on the organization's businesses, strategy, and financial planning where such information is material.	a) Describe the climate-related risks and opportunities the organization has identified over the short, medium, and long term.	Climate change SR 26-41, Risks and opportunities AR 26, FS 124-125
	b) Describe the impact of climate-related risks and opportunities on the organization's businesses, strategy, and financial planning.	Climate change SR 26-41, Risks and opportunities AR 26, FS 124-125
	c) Describe the resilience of the organization's strategy, taking into consideration different climate-related scenarios, including a 2°C or lower scenario	Climate change SR 26-41, Risks and opportunities AR 26, FS 124-125
Risk management		
Disclose how the organization identifies, assesses, and manages climate-related risks.	a) Describe the organization's processes for identifying and assessing climate-related risks.	Climate change SR 26-41, Risks and opportunities AR 26, FS 124-125
	b) Describe the organization's processes for managing climate-related risks.	Climate change SR 26-41, Risks and opportunities AR 26, FS 124-125
	c) Describe how processes for identifying, assessing, and managing climate related risks are integrated into the organization's overall risk management	Climate change SR 26-41, Risks and opportunities AR 26, FS 124-125
Metrics & Targets		
Disclose the metrics and targets used to assess and manage relevant climate-related risks and opportunities where such information is material.	a) Disclose the metrics used by the organization to assess climate related risks and opportunities in line with its strategy and risk management process.	Climate change SR 26-41, Risks and opportunities AR 26, FS 124-125
	b) Disclose Scope 1, Scope 2, and, if appropriate, Scope 3 greenhouse gas (GHG) emissions, and the related risks.	Climate change SR 26-41, Risks and opportunities AR 26, FS 124-125
	c) Describe the targets used by the organization to manage climate related risks and opportunities and performance against targets.	Climate change SR 26-41, Risks and opportunities AR 26, FS 124-125

Outokumpu's emissions scenarios, scope 1, 2 & 3 emission intensity



* Including discontinued operations

of the SDS includes the possible CO₂ reduction projects at different maturity grades according to the developed carbon neutral road map. It is assumed in the SDS scenario that nickel-containing stainless steel grades are produced mainly by recycling, more heating furnaces are changed to electricity-driven heating and that the biocoke and biomethane project is further expanded. All projects are to be realized during the journey in addition to the efficiency improvements.

Analyzed scenarios have been estimated under pessimistic, optimistic and realistic implementation of the projects and technologies for the carbon neutral roadmap to 2050. It is expected that compensation or new carbon capture, sequestration and utilization options for some remaining amount of emissions are needed.

Climate change risks

Outokumpu has assessed physical climate risks and mitigation measures for all sites and included them in the

general risk assessment system. None of the physical risks have been identified as a key risk to our company. According to the analysis, the most physical risk is flooding caused by increased events of extreme weather conditions or storms. Natural and catastrophe hazards could impact deliveries and result in interruptions to operations or facility damage at some sites.

The financial impact of the climate transition risk have been estimated for the target period until 2030. The transition risks to Outokumpu are driven by changes to climate policies, which can have adverse impact to Outokumpu's operating environment and financial position as by an increased price of greenhouse gas emissions and the linked rising electricity price. The risk on realization of lower emissions technology will become effective in the coming years. The risk of losing customers and market share is assessed and included in the risk management system. Read more about risks in Risks and opportunities.

In the beginning of 2022, Outokumpu announced that its long-term incentive plans were linked to the company's science-based climate targets.

Opportunities of a low-carbon society

Climate change is one of the three megatrends driving our business. The lifecycle of a stainless steel solution can have a lower climate impact compared to other materials such as carbon steel. As stainless steel is corrosion resistant and long-lasting material, it stands out in many applications of renewable energy production such as in high temperature power plants, solar farms, and biofuel plants. This growing market in the transition to a low-carbon society gives Outokumpu the opportunity to increase the revenue.

Continuous increasing of material recycling and energy efficiency as well as change to use lower emission fuel and electricity have significantly reduced the product's carbon profile. This is driving the competitive advantage of alloyed steel with low-carbon footprint that customers are increasingly demanding.

Investors are looking to finance sustainable projects or to invest in sustainable companies. The low-carbon profile of Outokumpu's stainless steel enables financial advantages in investments and the transition to the low-carbon society.

Emissions trading and fair competition

88% of Outokumpu's direct CO₂ emissions fall under an emissions trading system (ETS). The share has decreased from 2021 due to discontinued sites. The main risks of the trading phase 2021–2030 of the emissions trading system to Outokumpu involves the pass-through costs of allowances to the electricity price and the protection against carbon leakage by phasing out of free allocations. Free allocations have been decided until 2025.

Decision on the European carbon border adjustment measure will phase out the free allocation 2026–2034. Additional uncertainty on reduction of free allocations in the second half of the ongoing period by further decreasing benchmarks and possible cross sectoral reduction factor will impact the company's position. Outokumpu forecasts to have an adequate quantity of the EU emission allowances until the end of this decade, if the projected CO₂ reduction projects are realized.

Allowance prices are expected to further increase especially as the Green Deal of the European Commission requests further greenhouse gas reduction, and the benchmark for free allocation will decrease.

The European proposal on carbon border adjustment measures is not considering the high impact of the scope 2 emissions. Some main impacts of stainless steel raw materials, such as ferronickel, ferrochrome and ferromanganese are taken in account. There remains a risk that the carbon leakage avoidance measure in the trading system will not effectively be overtaken by the planned carbon border adjustment mechanism for the stainless steel industry.

Working with ambitious climate goals

Verena Schulz-Klemp, Director of Sustainability and Environment, has worked with environmental challenges for several decades. Since 2016, she has developed Outokumpu's climate target setting.

How has Outokumpu's emission reporting developed over the years?

We have reported our climate emissions for decades but first we only reported our direct emissions and emissions from electricity use. These are called scopes 1 and 2. The next major step was to include the raw material and supply chain emissions, which are also called scope 3 or upstream emissions. Scope 3 was included in our calculations in 2016.

What are the challenges in reporting upstream emissions?

It was a big challenge to estimate and calculate the upstream emissions as it can be tricky to get correct emission factors. We started with including the main raw materials and then other materials, downstream, transport, and process gases. The number of different emission sources to be included in scope 3 calculation can be quite big: we have over a dozen of separate sources of scope 3 emissions which need to be calculated per each production site. A bit ironically, the better and more thorough our climate reporting has become, the higher the emissions have become because we have been filling the missing gaps. But we are in a good position to lower our emissions in line with the Science Based Targets initiative.

Why did Outokumpu join the Science Based Targets initiative?

We joined the initiative in 2016 as the first stainless steel producer. Our first science-based climate target was approved in the beginning of 2019. SBTi has a deep technical background focusing on emission intensities, and it takes into account all scopes, which was important for us. We also wanted to contribute to reducing CO₂ emissions and give the signal that we are taking climate change seriously.

What are Outokumpu's climate targets now?

Our targets are now clear but ambitious: our CO₂ target for 2030 corresponds to a reduction of 30% compared to 2020. To reach the set targets we are applying a bottom-up approach and considering all options. For example, lowering our ferrochrome footprint would make a big difference. We produce our own ferrochrome, and it has around 70% lower CO₂ footprint than the industry average, but we still aim to reduce it even more. This can be achieved for example with the planned biocoke investment. In 2022, we also announced an ambitious program for improving our energy efficiency. This program is also a big step to reach our targets.

Developing the stainless steel sector's decarbonization approach is an important focus area for the industry. Can you explain what is being done at the moment?

We have very good expertise on stainless steel decarbonization, and we are working with the SBTi and other organizations to develop the industry's target setting even further. The first steel sector



decarbonization approach did not take into account the special characteristics of stainless steel production. Compared to carbon steel, stainless has lower scope 1 emissions but higher scope 2 and 3 emissions. Stainless steel is produced in electric arc furnace (EAF) mainly out of scrap. A transition from integrated production process to an EAF process, as in carbon steel, is not possible for stainless steel. Developing common target setting principles for the whole stainless steel sector will be significant for the global aim to limit climate warming to 1.5 degrees.

Energy efficiency in focus

Improving the energy efficiency of our operations is one of our focus areas for the next few years.

Outokumpu's operations are energy intensive. For the recycled steel to melt, it is heated to over 1,400°C. The process requires a high amount of electricity as the best available technique for melting recycled steel is to use electric arc furnaces.

Outokumpu is continuously striving to make its production operations more energy and material efficient. Although the melting of recycled steel and the production of stainless steel consume a lot of energy, stainless steel enables energy efficient solutions from a life-cycle perspective by saving energy during its use phase.

Key drivers in energy efficiency improvements

In 2022, we announced the decision to significantly increase our energy efficiency improvement target and prioritize related investments in the next two years. Until the end of 2024, we aim to improve energy efficiency by 8% across the group compared to the January–September 2022 level. These measures would correspond to energy savings of approximately 600,000 MWh which is equal to the annual electricity usage of 15,000 households.

We aim to improve our energy efficiency by

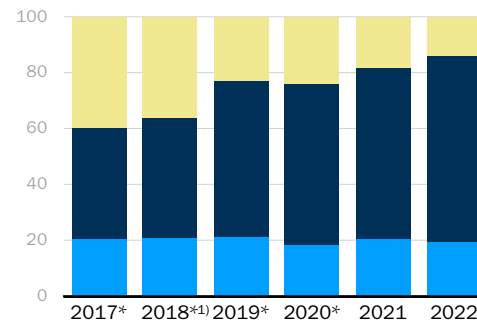
- investing into furnace improvements of heat treatment lines,
- optimizing our energy consumption and fully utilizing our energy management system, and
- improving yield.

The new energy efficiency targets have been translated into site-specific targets. Sites will have specific plans and targets for improving energy efficiency and related investments.

Energy efficiency development

In 2022, our energy intensity per tonne stainless steel increased by 3% from last year mainly due to lower production volumes. Energy efficiency is calculated as a sum of different process steps including ferrochrome.

Origin of electricity, %



- Renewable sources
- Nuclear
- Fossiles

¹⁾ Includes electricity mix of Mexico for the first time

* Including discontinued operations



Our operations are energy intensive, but our new energy efficiency target by end of 2024 would mean an energy saving of 600,000 MWh – equal to annual electricity usage of 15,000 households.

Total energy efficiency was 3.15 MWh/t against the target of 3.06 MWh/t.

During 2022, the energy efficiency was impacted by a standstill in ferrochrome production and performance of melt shops, but the performance was helped by digitalization and energy efficiency projects.

Low-carbon electricity

Outokumpu has centralized energy procurement in order to secure a sufficient energy supply, to ensure predictable, competitive, and stable energy prices, and to optimize the energy portfolio also on low-carbon electricity.

In 2022, 86% of our electricity sources came from low-carbon (renewable and nuclear) sources. Outokumpu participates in several programs that promote the use of low-carbon electricity such as wind power, hydropower as well as combined heat and power. During 2021–2022, Outokumpu announced altogether three new supply agreements for wind power in Europe.

As primary energy sources, we use natural gas, propane, or other fuels, such as diesel. Fossil fuels cover about 81% of our total fuel consumption. Outokumpu does not yet consume fuels from renewable sources in production processes, except small amount for the circle green production, but we utilize our own recovered carbon monoxide process gas which accounts for 19% of our total use of fuel.

Process gases and waste heat are also used to heat buildings on sites. For example, the combined heat and power plant in Tornio, Finland produces heat for the Tornio site out of recovered process gases, and in Dählerbrück, Germany, we have our own hydropower plant to generate some 10% of the electricity needed in the production. Outokumpu is also a shareholder in a wind power park in Tornio. Fuel switch to lower carbon emission fuels is ongoing. See more details in the [sustainability data tool](#)

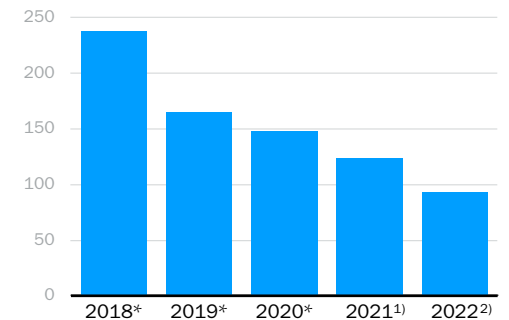


Share of low-carbon energy 86% of our electricity sources

Energy used in operations

Gigawatt hours, GWh	2022	2021	2020 ¹⁾
Electricity	3,973	4,384	4,371
Carbon monoxide gas	574	678	625
Natural gas	1,775	1,990	2,019
Propane	483	492	508
Diesel, light and heavy fuel oil and other	149	152	159
Energy	6,953	7,696	7,682
Energy use in GJ per tonnes crude steel	10.5	10.2	11.0

Market-based electricity emission factor, kg CO_{2eq}/MWh



¹⁾ 0,5% of electricity use in EU market is coming with GoO or from ownerships in power production.

²⁾ 33% of electricity use in EU market is coming with GoO or from ownerships in power production.

* Including discontinued operations

Circularity at our heart

We are committed to a circular economy model with our sustainable, 100% recyclable, long-lasting and resource-efficient stainless steel.

We recycle the equivalent of the weight of 250 Eiffel towers annually. In fact, only at Outokumpu's Tornio mill – the largest material recycling center in Europe – we recycle over one million tons of metals per year.

All our stainless steel mills are significant recycling facilities, producing new products out of recycled steel, recovering and recycling everything reasonable in our production, and finally selling by-products from the production process to replace natural resources.

Record high recycled content rate

Recycled steel from both stainless and carbon steel is our most important raw material. Increasing the recycled content of stainless steel is the most efficient way for Outokumpu to reduce the overall environmental footprint. Increasing the use of recycled raw materials helps us to reduce our indirect scope 3 emissions which form the largest share of our total CO₂ emissions.

Our business is based on circular economy.

The recycled steel content of our stainless steel, defined according to ISO 14021, was 89.8% in 2022. This includes pre- and post-consumer scrap. Including the use of recycled metals from our waste streams, the recycled material content of our products was 93.9% in 2022 against our target of 92.5% for 2022.

The result was impacted by the good availability of steel scrap. For 2023, our goal is to keep the high level of 92.5%.

Recycling in our own processes

One key factor in reaching such a high level of recycled material content is the recovery and recycling of metals from the production processes, e.g. from dust and scales. We are continuously looking for the best ways to recycle the metals of our melt shop dust. These side streams are either treated on site or by an external facility for recycling in our melt shops.

In addition to metals, other materials, such as slag formers, acids, and gases, are needed in the production process although they do not become part of the stainless steel products. Some of these input materials are needed to minimize or prevent emissions into the environment. As far as reasonable, these are also recovered and recycled in the process. For instance, the used acids are continuously regenerated for reuse, and the hydrogen from the bright annealing process is recovered in the incineration of the process furnace.



Our Tornio mill in Finland is actually the largest material recycling center in Europe.

Recycling as much as possible

In our production, all material streams in production are studied carefully to find the means of fully recycling, reusing, or selling them as by-products. Waste management is in our focus and we reuse, recycle and recover as much material as reasonable.

The biggest waste items at Outokumpu are slag that are not used, tailing sand from the mining operation, and sludges, dust, and scales from the stainless steel production. While waste is recycled whenever possible in our own production, our production still generates landfill waste. Our target for waste (other than slag) going to the landfill is to reduce it by 0.5% per year. In 2022, all waste to landfill per tonne stainless steel was reduced to 0.53 tonnes from 0.56 tonnes.

The amount of tailing sands from the mining operation slightly decreased in 2022 compared to the previous year, as less ore was concentrated. Scales and metals from filter dust or from slag are recycled and acids are regenerated. Other recovered materials like lime, bricks, and some sludges were mostly used in our melt shops to substitute virgin additive materials like slag formers. Tailing sand is deposited in the pond of the mining area itself. Outokumpu's waste management is described in more detail on [Outokumpu's website](#) ↗

By-products

In addition to reducing the total volume of landfill waste from our own operations, we also aim to increase the proportion of materials sold as by-products.

We have developed slag-based products, e.g. for refractory and concrete production and water treatment. Slag is an essential material in the steel melting process, and it is made from lime or other natural minerals. By-products made of slag mineral reduce the amount of waste generated by steel, save virgin raw materials and lead to lower CO₂ emissions. In 2022, Outokumpu sold or used 0.93 million tonnes of slag as the main by-product of operations.

In 2022, the use rate (including use, recovery, and recycling) of all slag was 86.5%. The remaining share of slag was sent to landfill. In September, the University of Oulu in Finland published a study that linked Outokumpu's ferrochrome slag by-product to the increased number of broken timing belts in cars in northern Finland. The ferrochrome slag by-products have been used in road construction in the area. Outokumpu is currently

assessing the implications of the study, and the sales of the ferrochrome slag for road construction has been stopped for the time being.

During 2022, a company-wide working group worked to develop value-added products of slag and other sidestreams.

Waste management

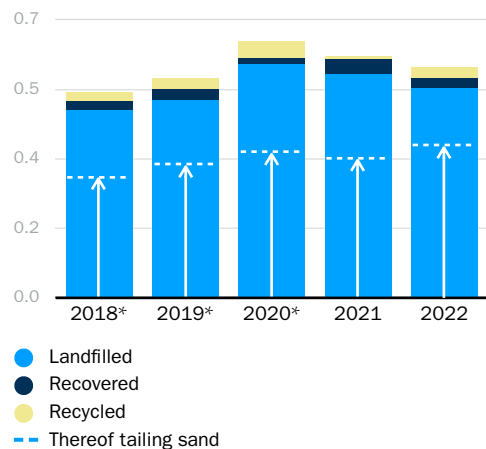
Tonnes	Generated	Diverted from landfill	Landfill
Hazardous waste	122,962	79,046	43,916
Steelmaking dust	68,846	53,654	15,192
Oily sludge	12,437	12,294	143
Regeneration & hydroxide sludge	5,747	5,200	547
Neutralization sludge	20,006	2,314	17,692
Other waste	15,925	5,584	10,341
Non-hazardous waste from stainless steel production	254,138	49,082	205,057
Scales	11,298	11,298	0
Slag	144,608	0	144,608
Other waste	98,233	37,784	60,449
Tailing sand (surface impoundment)	1,003,150	0	1,003,150

Waste diverted from disposal by recycling

Tonnes	Onsite	Offsite	Total
Hazardous waste			
Recycling	7,457	12,239	19,696
Other recovery operations	57,738	1,612	59,350
Total			79,046
Non-hazardous waste			
Recycling	24,753	11,924	36,677
Other recovery operations	12,405	0.00	12,405
Total			49,082
Waste circulation			128,128

High recycled content is one of the drivers for reducing our emissions.

Total waste development, tonnes per steel



* Including discontinued operations

Achieving high recycling rate

Circularity is in our heart as stainless steel is a key ingredient in the circular economy. At the end of its lifecycle, it's fully recyclable. In our own production we recycle as much as possible and also the rate of recycled materials in our production is the highest in the industry. In 2022, we reached the record-level of 93.9%. How is that possible?

To start with, we use as much as recycled steel in our production as possible. Recycled steel can be both stainless and carbon steel. The recycled steel can be anything from old car bodies and machine parts to old pots and pans. This is why it is so important to return for example old kitchen utilities to recycling once those have been worn out.

We also reuse and recover all metals from our own process, such as filter dust or slags, which is what really differentiates us and helps us the achieve the record high rate. These side streams are either treated on site or by an external facility. Recycling truly is integrated into every step of our processes.



Environmental impacts minimized

We aim to reduce our impact on the environment by proactively developing our production processes, energy and material efficiency. Our growing environmental efficiency is based on long-term efforts and continuous improvement.

The biggest environmental impacts of stainless steel production are dust emissions from melt shop and ferrochrome production processes into the air, water use and discharges from production, use of direct and indirect energy, and the waste created in the production process.

Environmental compliance

Our environmental network closely follows the environmental performance of our operations, their permit status and legal compliance. The network conducts internal site audits in the production units according to risk screening. Environmental incidents have been reduced continuously.

In 2022, there were 7 permit breaches at our operational sites, but all were temporary and did not have a significant impact on the environment. Outokumpu reported each incident to environmental authorities, and carried out corrective actions immediately or resolved the incidents together with the authorities. No environmental damage was detected, and no fines were declared in 2022.

As our main raw material is recycled steel, we take all possible precautionary measures to check the input material for any unwanted content, such as mercury and radioactive contaminated material. We work together with our suppliers to decrease the share of unwanted materials in our production processes. All input material, the liquid steel and waste gas of the melting process, is controlled regarding radioactive contamination.

Dust emissions remained low

Steel melting and rolling processes generate dust and scales that are collected, treated and, whenever possible, recycled in our own production. For example, raw material metals (chromium, nickel, and molybdenum) are recovered from dust, sludges, and scales in specialized internal and external recovery plants. Our dust filtering systems are extremely efficient and remove 99% of the particles.

The measured particle emissions from all of our production processes were 223 tonnes in 2022. A large share of the particles, 139 tonnes, were emitted from the ferrochrome production process. However, the emission measurements include high uncertainty, causing a remarkable fluctuation in the results year by year. The level of dust emissions from the melt shops is within the limits of environmental permits and in line with BAT levels. No significant further reduction is expected.

Water is reused as much as possible

Water is used in our production process in annealing, pickling, and cooling. The withdrawal of water is metered, and rainwater is estimated by average rainfall and the surface of captured rainwater. It is treated and recycled as much as possible, and only some is discharged to the municipal wastewater system.

All wastewater is treated in the company's own treatment plants or in municipal water treatment systems before it is discharged. The main discharges into water are metals



During the last decades, we have made significant investments to minimize our environmental impacts.

and nitrates. The discharge is measured and supervised by the authorities. Out of the 7 permit breaches that occurred in 2022, one case was a minor non-compliance in sanitary wastewater. They were coordinated with authorities, immediately removed and analyzed.

Wastewater treatment depends on the contamination of the wastewater. According to the needs, treatments are oil skimming, neutralization, flocculation, and sedimentation to extract metals and, when necessary, a Cr(VI) reduction process. Nitrate is often treated in the municipal water treatment to reduce discharge. In these cases, the steel allocated discharge cannot be monitored. The water impact is managed by municipal treatment operators.

The water used in the production is mainly surface water from rivers and sea and often includes rainwater. The impact of water withdrawal is evaluated at sites where river water is used, and where data on the river water is available.

Regular water impact assessments in our biggest operating site Tornio and in the mining site in Kemi are available publicly. Latest assessment from 2021 covers meteorological and hydrological development, factors impacting the sea area, physical and chemical water quality and fishery impact and development. The studies show that the impact of the stainless and ferrochrome production on the sea area's water quality and the biodiversity changes is minor.

Outokumpu operates a cold rolling mill in San Luis Potosí, Mexico, in a dry, arid area, where groundwater is a scarce resource for people (extremely high water stress area according to Aqueduct). The groundwater withdrawal accounts for about 0.29 million m³ and the water discharge to municipal wastewater system was at about 0.04 million m³. Water recycling and treatment at this site are especially ambitious to minimize the groundwater impact. The site has self-committed on specific groundwater use and on high water treatment.

Impacts of the mining operation are limited

Outokumpu operates the only chrome mine in the EU located in Kemi, Finland. We are a member of the Finnish Network for Sustainable Mining, and Kemi mine is committed to the Finnish sustainability standard for mining.

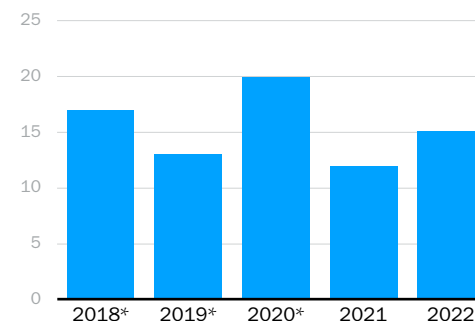
The environmental impacts of the mine are very limited due to the nature of the process. The minerals are in oxide form and very stable with only a minimal amount of sulfur compounds. Chemicals are not used in the beneficiation process, which is based on gravity separation.

The Kemi mine is almost self-sufficient with water as it recycles water on site and collects rainwater. The underground mine takes drilling water from old open pits (rainwater), and drilling water is also recycled inside the underground mining process. All dewatering from the mine is pumped to the closed circuit of the tailings site and

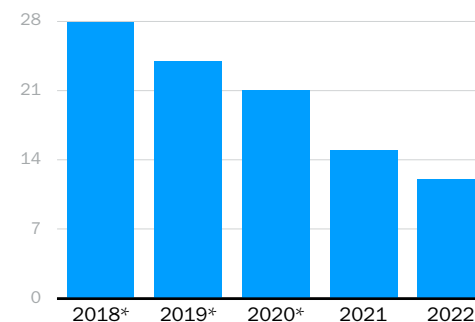
Water withdrawal and discharges

Million m ³	2022	2021	2020 ¹⁾
Surface water	29.1	29.2	46.1
Seawater	11.6	13.1	na
Municipal water	0.5	0.5	1.1
Groundwater	2.6	2.3	2.6
Rainwater	1.2	1.9	2.4
Water withdrawal by source	45.1	46.9	52.2
Water discharges	32.3	35.0	na
Cooling water out	13.7	14.5	13.2
Wastewater to municipal treatment	0.7	0.8	na
Discharge to surface water	11.4	12.9	21.0
Discharge to sea water	6.5	6.7	na
Emissions to water, tonnes			
Metal discharges to water, tonnes	27.9	26.9	43.7
Nitrogen in nitrates, tonnes	1,648	1,049	1,070

Steel melt shop particle emissions, grams/t



Total amount of environmental incidents at operational sites



Includes all environmental incidents in addition to the permit breaches.

* Including discontinued operations

concentrator plant on the surface level. Furthermore, a significant amount of 0.43 million m³ of rain and snow melting waters, less than half of last year, were collected in the process in 2022. The Kemi mine discharges 2,522,000 m³ water from the area, including rainwater, whereas the water intake from the municipal supply is only 23,000 m³.

During 2018–2021, the Kemi mine carried out a project to increase the resource efficiency of the mine. The project was about the depth extension and building underground mine infrastructure from 500-level to 1,000-level (meters) below surface. The area of the mine site was not expanded.

The biggest impact on the environment from the mine is nitrates in the discharge water, which originate from explosives. However, the amount of nitrates is reduced by natural processes in the internal water recycling system of the mine site. Another environmental aspect is chlorites from underground mine water that originates from natural geological formations. Land use of mining is limited to the existing mining area as mining is underground. Tailing sand is deposited in the tailing ponds of the mine area which will be landscaped as forest when full.

In June, Outokumpu announced that it has established a roadmap to achieve carbon neutrality at the Kemi chrome mine by 2025. The three main factors to reach carbon neutrality at the Kemi mine are the utilization of carbon-free electricity, using biofuels in transportation and machinery as well as replacing natural gas and propane gas with biogas in heating. Mining machinery electrification will also be extended to reduce the need for fuels.

Biodiversity

Outokumpu is committed to supporting biodiversity and takes it into consideration in its decision-making. The main way for Outokumpu to contribute to maintaining biodiversity globally is through the reduction of greenhouse gas emissions and increase of recycling



as this is saving natural resources. The production of stainless steel does not occupy or reserve large areas of land or have a significant effect on the biodiversity of the surrounding natural environment. The company's chromium mining is an underground mining without increase of used land, without the use of chemicals and without impact on the climate development. Old open pits in the mining area are ponds and living environment for many birds and fishes. An environmental impact assessment on the mining operation is still ongoing.

Outokumpu's production sites are not located in sensitive areas. However, Outokumpu has identified areas of high biodiversity value that are owned by the company or adjacent to our sites. These sites comprise 81% of the total owned land. Find out more about these sites on [our website](#) ↗

Outokumpu has several projects ongoing to support biodiversity on areas surrounding its sites. These include building bird hotels at the Kemi mine, establishing insect hotels in Avesta, Sweden and creating a wildflower meadow for bees in Dillenburg, Germany.

Biodiversity

Site	Area in km ²	Percentage
Calvert, US	4.69	19.2%
Dahlerbrück, Germany	0.063	0.3%
Kemi, Finland	9.16	37.4%
Tornio, Finland	6	24.5%
Total		81.4%

Hosting birds and insects in hotels

The unique ecosystem of the Kemi mine area has created a diverse environment for different bird species. The area is popular among local bird enthusiasts, and Outokumpu has been cooperating with the local bird enthusiast association for decades. The latest step in the cooperation has been to build a hotel for house martins in the Kemi mine area.

“Due to the scarcity of nesting sites, the number of house martins has decreased dramatically, and these birds have built nests in the office area buildings. We wanted to build nesting sites for house martins near a water basin, where there is enough water and insects for them,” says **Tuula Laasanen**, Chairperson of the local bird-watchers association Xenus.

A similar initiative took place at our site in Avesta, Sweden.

“As an initiative for biodiversity, we let tree logs remain on the ground so they can become a hotel and food storage for a wide array of insects. These logs are placed just outside the fence to our industrial area,” explains **Joakim Rollin**, Environmental Coordinator in Avesta.





People and society

Outokumpu is a part of a global supply chain and a major employer in many of our communities.

“We want to be a good corporate citizen and an employer, and we take our role in the global supply chain seriously.”

Sustainable supply chain

Outokumpu is a part of a global supply chain by producing stainless steel for leading brands in demanding industries around the globe.

Our customers expect us to provide a traceable supply chain and, therefore, we have in place stringent requirements for our suppliers, too. Developing our supply chain monitoring is one of the priorities in our sustainability work.

Supply chain management and policies

Our procurement activities are divided into general procurement and procurement of raw materials. Raw materials are all ingredients that are in the steel we produce. General procurement purchases everything that is needed for our production activities and everything else we do at Outokumpu.

In 2022, we had

- Over 6,000 suppliers globally, local suppliers account for about 45% of purchases
- Raw material suppliers in 49 countries and General Procurement suppliers in 48 countries
- 61 raw material suppliers operating in countries with an assessed increased risk, covering 13% of the total spend on raw materials.
- only a few of general procurement suppliers operating in countries with increased risk with negligible combined spend.

Outokumpu's supply chain activities are guided by our Supplier Code of Conduct, Supplier Requirements and our Corporate Responsibility Policy. We are committed to the Modern Slavery Act and take into account the OECD Due Diligence Guidance for Responsible Supply Chains. We

have started to implement the UN Guiding Principles on Business and Human Rights (UNGP) into our operations and supply chain.

Our most important raw material is recycled steel, which primarily originates from Europe and the US where our melt shops are located. The primary alloying element, chromium, originates primarily from our own chrome mine in Kemi, Finland. We also get large amounts of the alloying elements (Cr & Ni) from the recycled materials.

Progress and events during the year

In 2022, we continued the development of our supply chain sustainability management. During the year, Outokumpu published a new Supplier Code of Conduct which outlines our expectations for our suppliers. Complying with our Supplier Code of Conduct is considered a minimum requirement for business engagement with any of our business units. We also reviewed our Supplier Requirements and published a Human Rights Policy.

The raw materials sustainability team was strengthened in April with three additional resources. The team developed a social audit approach with the support of external advisors and was trained to be social auditors. The onboarding process for raw material suppliers was reviewed and now has a stronger focus on sustainability and related risks, and we also developed a new digital tool for the onboarding.



We want to provide a traceable supply chain and therefore we look beyond our direct suppliers.

During the year, we had a particular focus on supply chain transparency beyond direct (tier 1) suppliers and extended the documentation of our supply chains.

All these activities contribute to us fulfilling the expectations of the UNGP, the Norwegian Transparency Act, the German Supply Chain Act and other existing and upcoming legislation in this field.

Following the enactment of the Uyghur Forced Labor Prevention Act (UFLPA) this year, we identified those suppliers with increased risk in the context of the law and asked them to sign a declaration and/or to present their supply chain due diligence practices to us.

We also continued the collection of supplier-specific CO₂ emission values for selected raw materials and developed a scope 3 CO₂ emission reporting and forecasting tool.

Risk-based approach

Outokumpu applies a risk-based approach in supplier management. Risks are assessed in different stages of the relationship with the supplier, first during the onboarding of a new supplier, but also later during the relationship with the supplier.

Onboarding

A supplier shall be qualified before they can be approved and added to the Outokumpu supplier portfolio. In the qualification process, the potential risks and/or opportunities are identified and evaluated. The identification of risks follows Outokumpu's Know Your Business Partner Instruction.

This ensures that the suppliers comply with the Outokumpu Supplier Code of Conduct and Supplier Requirements and can provide conforming raw materials, products, or services on a consistent basis. All new suppliers go through a compliance screening for sanctions before any business is initiated.

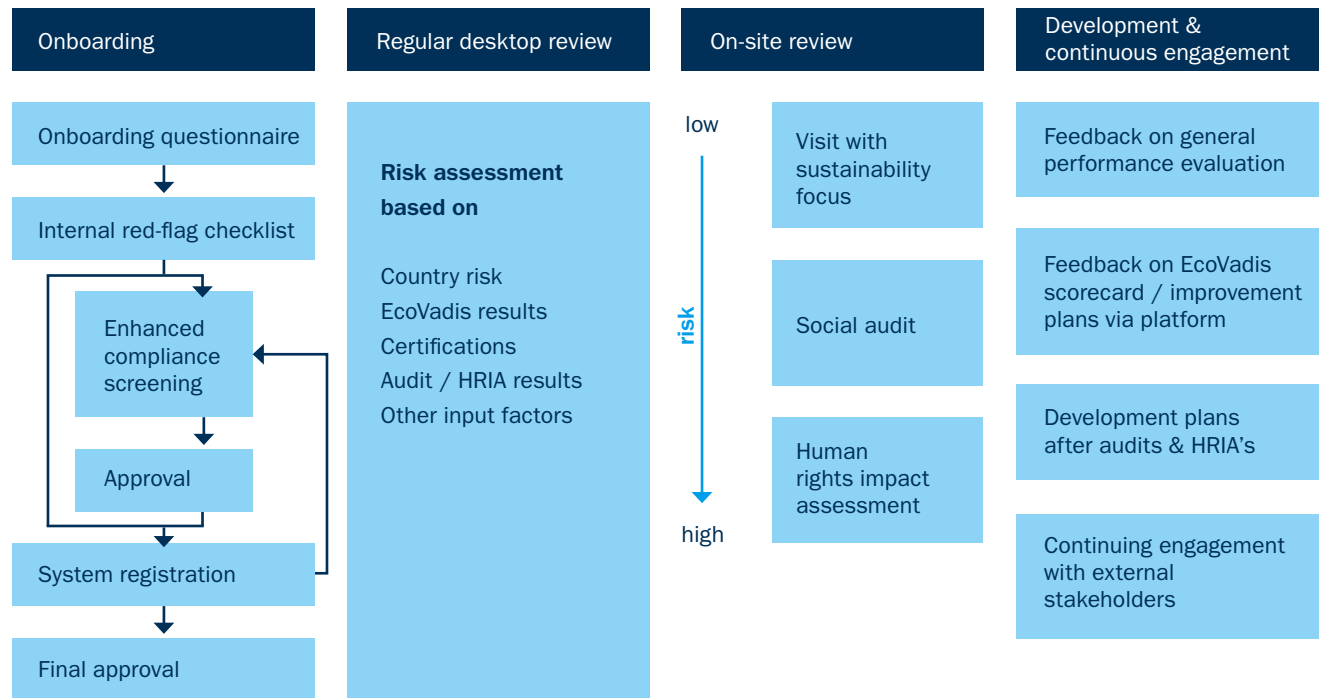
Around 500 general procurement and 11 raw material suppliers were onboarded in 2022. Two raw material suppliers were onboarded with the new process.

Regular desktop review

Outokumpu monitors its suppliers through regular desktop reviews, by using, for example, country-based risk indicators, self-assessments, and screenings. In 2022, 100% of our raw material suppliers were assessed with this risk-based approach. In 2022, 18 of Outokumpu's raw materials suppliers were categorized with medium and 43 suppliers with high risk, covering 13% of the total spend on raw materials.

Raw material procurement uses the EcoVadis platform for self-assessments, which focuses on environment, labor and human rights, ethics, and sustainable procurement.

Supply chain due diligence



Risk-based supplier due diligence in raw materials procurement

At the end of 2022, 56 raw material suppliers had valid EcoVadis scorecards, with an average rating score of 52 (scale 1–100), covering 64% of the spend.

General procurement uses its own self-assessment process to evaluate suppliers. The assessment is done against our Supplier Requirements and includes the areas ethics and sustainability, health and safety, environmental management, quality, production and supply control, supply chain and supplier management and company management. In addition, the performance of selected suppliers is regularly evaluated using the following criteria: technology, quality, supply, cost, safety, environment, and financial risk. As a result of the self-assessments

and performance evaluations, non-conformities and improvement opportunities are identified and needed actions agreed with the suppliers.

During 2022, 89 general procurement suppliers completed a self-assessment questionnaire and 187 improvement actions were defined and completed.

In general procurement, financial screenings for 97 potential new and existing suppliers were conducted. Of the screened suppliers, five are located in medium or low risk countries, which are defined in the Know Your Business Partner Instruction.

Visits, on-site audits, and impact assessments

Suppliers are selected for visits, on-site audits and impact assessments based on their risk level.

Social audits are carried out on suppliers that have potential human rights impacts arising from the supplier's own operations or its value chain. Impact assessments are conducted on high-risk suppliers.

Whereas social audits are carried out by Outokumpu itself, impact assessments are always carried out in collaboration with an external auditor and usually take longer than a social audit. Also, the scope of an impact assessment goes beyond the supplier's premises and employees and includes external stakeholders as well.

During 2022, 12 general procurement suppliers were audited. In raw material procurement, 11 suppliers were visited, one was audited and three went through an impact assessment.

Based on the visits and audits, improvement areas were recognized and discussed with the suppliers. One raw material supplier in Guatemala was subjected to a human rights impact assessment after several allegations were raised against the supplier. Based on the findings, purchasing from the supplier was suspended.

More information about Outokumpu's site visits to raw material suppliers can be found on [our website](#) ↗

Capacity building

During 2022, capacity building in the areas of social and environmental issues within raw material supply chains took place in the form of trainings related to the EcoVadis concept, new onboarding process of new suppliers and conflict minerals procurement and reporting. All category managers and buyers participated in the trainings, and everyone participated in at least one of the trainings. The average participation rate was 96%.

In general procurement, category managers and buyers were trained on supplier qualification and relationship management processes during a 3-day capacity building workshop. A separate human rights risk assessment workshop was held for the transportation category group. Four team members have developed their auditor skills further in trainings.

In raw materials procurement, the strengthened supplier sustainability team received the social auditor training, and all category managers and buyers were trained on conflict minerals, the new onboarding process, and on the concept of social auditing.

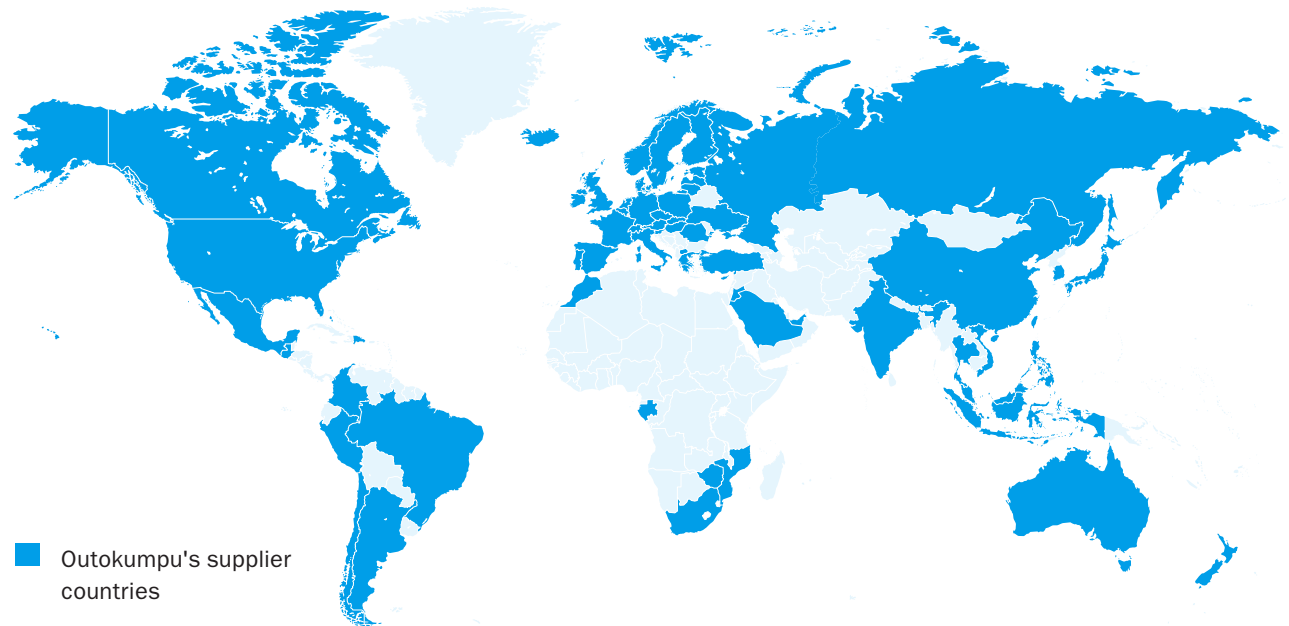
Plans for 2023

Outokumpu will continue to strengthen its approach to sustainable supply chain management in 2023.

In raw material procurement, the aim is to continue the work on supply chain transparency and documentation in our SRM tool, reducing scope 3 CO₂ emissions, executing and fine tuning the processes developed in 2022, such as the new onboarding process, the regular desktop review, and the social auditing approach.

In general procurement, the aim is to develop the risk-based approach on supplier assessments by further increasing the focus on sustainability and executing on-site assessments for selected suppliers, improve risk identification and evaluation efficiency with specific focus on sustainability and compliance.

Material and service suppliers



Continuous improvement in supply chain sustainability

Outokumpu conducted a human rights impact assessment at one of its suppliers in Guatemala after allegations of negative impacts were raised in the media. **Hannah Stratmann**, Head of Human Rights and Supplier Sustainability at Outokumpu, takes us through the case and how we have developed our processes.

What happened?

In late 2021, Outokumpu was contacted by Swedish journalists investigating nickel mining in Guatemala. The journalists claimed that one of our sub-suppliers was covering up pollution of a lake near a mine operated by them. There were also other allegations, for example negative impacts on the local people and lack of transparency.

How did Outokumpu act on the situation?

As soon as we got the information about these allegations, we acted firmly and decisively and decided to discontinue purchases from the sub-supplier and to conduct a human rights impact assessment together with an external partner. As part of the assessment, a field visit was completed in the beginning of March, during which both internal as well as external stakeholders were involved.

How was the assessment conducted?

The purpose of the assessment was to investigate, identify and assess the human rights impacts of our sub-suppliers' operations on the affected communities, focusing on indigenous rights-holders. This included a review of the company's human rights risk management practices and their status of implementation to determine if Outokumpu can rely on those processes to fulfil its own due diligence responsibilities under the UN Guiding Principles for Business and Human Rights.

What happened after the visit?

Based on the findings in the assessment, the suspension of purchases from the sub-supplier remained in place. The final report contained recommendations for the sub-supplier, and we stayed in regular contact with them to discuss the recommendations and monitor their implementation. We are committed to working with the sub-supplier in improving the situation for the local population and their welfare and safety.

Have you visited other suppliers to assess human rights impacts?

Yes, in 2022 we visited five of our metallurgical coke suppliers in Colombia together with the same external partner that conducted human rights impact assessment in Guatemala. This time, there were no allegations towards the suppliers beforehand, so we conducted these visits proactively based on our raw material supply chain risk assessment. We also conducted a human rights impact assessment at a nickel supplier in Colombia with our external partner. During these visits, we discussed the suppliers' own due diligence processes, governance and how they assess their suppliers. We also engaged again with external stakeholders and NGOs to hear their views on the companies and to learn about specific risks and conditions in those regions. Interestingly, most of the suppliers told us that we were the first of their customers to visit them to talk about human rights.

In addition to the impact assessments we conducted with our external partner, we did our first social audit at a supplier in the Dominican Republic. We developed the Outokumpu social audit approach with our external partner and my team and I received training in how to conduct these audits. We are aware of the criticism that social



audits sometimes are subject to, but we believe we have found a good way to identify human rights risks and assess our supplier's due diligence practices. We will continue conducting social audits on suppliers with medium risk and we will finetune our approach along the way.

Currently, we are working with our external partner and one of our scrap suppliers on identifying human rights risks in the stainless-steel scrap supply chain. The scrap supply chain is often seen as less risky than the extraction and processing of primary metals, but as our stainless steel is made to more than 90 % out of scrap, we find it very important to get a better understanding of the risks in this supply chain.

What remains to be done?

Developing our supply chain sustainability is a continuous journey for us. In 2023, we will continue to strengthen our approach and processes which we have developed this year, for example the audit approach that I just mentioned. Human rights impact assessments with the external partner are also on our agenda for next year. We also developed a new onboarding process for raw material suppliers which we continue to execute and finetune. This helps us to engage our suppliers right from the start.

Impact on human rights

Outokumpu is committed to conduct its business with high integrity. We respect and promote human rights and conduct business in a safe, sustainable and ethical manner.

This section is a summary on the reporting on human rights in accordance with the UNGP Reporting Framework and the Norwegian act relating to enterprises' transparency and work on fundamental human rights and decent working conditions (Transparency Act). The full report will be published on [our website](#) ↗

Commitment

Outokumpu is committed to conduct its business with high integrity. We respect and promote internationally recognized human rights as set forth in the International Bill of Human Rights and the ILO Declaration on Fundamental Principles and Rights at Work. Human rights are addressed in several publicly available company documents: Outokumpu's Human Rights Policy, Code of Conduct, our Corporate Responsibility Policy, Supplier Code of Conduct, our Supplier Requirements for Raw Materials and our Supplier Requirements for General Procurement.

Our Human Rights Policy was developed during spring 2022 and is publicly available at www.outokumpu.com. At the end of 2021, we engaged external experts to help us identify human rights risks and impacts that we may cause, contribute to, or are linked to through our business relationships. This work included the identification of our salient human rights issues, which informed our human rights policy. Health & safety, equality, and anti-discrimination, working conditions, freedom of association, no tolerance for forced labour and child labour, indigenous rights, and the right to a clean and

healthy environment are material topics to us and are highlighted in our human rights policy.

Outokumpu is committed to respect and protect the human rights of everyone who may be affected by our activities or through our business relationships. We expect not only our own employees, but also business partners, including suppliers and sub-suppliers to respect and not infringe upon human rights.

The CEO has most senior level of oversight and accountability for human rights in Outokumpu. Responsibilities are cascaded down via the Chief Technology Officer, who represents sustainability in the company's leadership team to the VP, Sustainability who is responsible for the management of ESG risks within the company and further to the Head of Human Rights and Supplier Sustainability. Responsibilities related to human rights and supplier sustainability are combined in one role, because most of the identified high human rights risks are connected to Outokumpu's sourcing activities. The Chief Technology Officer, the VP, Sustainability and the Head of Human Rights and Supplier Sustainability are part of the ESG core team, which discusses human rights risks on a regular basis.

Outokumpu has been involved in some labor-related disputes, for example in the US regarding a dispute over payment of wages, of which more information can be found in the Review by the Board of Directors. Even when Outokumpu is of the view that the claims asserted against



In 2022, we completed a human rights risk assessment of one supplier in Guatemala and visited several suppliers in Colombia.

it are without merit and is defending against them, we always investigate each issue and take necessary measures to improve our processes and mitigate any residual risks of these kinds of claims.

Development in 2022

Whereas 2021 was a year of commitment, 2022 marked the start of our UNGP implementation journey. During the first half of 2022 we developed and documented a method of integrating human rights risks into our enterprise risk management system. We also developed and published our human rights policy and published our first report on human rights due diligence following the UNGP reporting framework. The Outokumpu human rights network was founded, and first trainings and workshops were held.

In addition to developing the structures for human rights management in Outokumpu, we had a specific focus on human rights in our raw material supply chain. A case of potential human rights infringements at a supplier in Guatemala was brought to our attention, which resulted in an impact assessment in early 2022. During 2022, the raw material supply chain team developed and improved due diligence processes and visited 14 raw material suppliers on-site.

Salient human rights issues

In 2021, we carried out workshops with internal stakeholders to identify the most salient human rights risks. The identified human rights risks were rated based on their scale, reach and remediability to be able to make a prioritization based on their severity, as well as on their probability to occur. In 2022, the human rights risks were separated into risks stemming from Outokumpu's own operations and risks within Outokumpu's supply chain. Some of the identified risks were renamed and their likelihood and severity was re-evaluated.

Those risks with a very high rating on severity and probability, are considered to be salient. Updated human rights risk matrix can be found on this page.

Affected human rights: Risks:	Right to equality & freedom from discrimination	Health & safety	Right related to minorities	Rights to rest and leisure	Right to environment	Freedom from slavery	Children's rights	Indigenous rights
Risks stemming from Outokumpu's own operations								
Climate change								
Discrimination, intimidation, and harassment within the workforce								
High workload								
Risks stemming from Outokumpu's supply chain								
Radioactive material in scrap								
Human trafficking in coke supply chain in Colombia								
Environmental pollution by nickel suppliers								

Stakeholder engagement

Management of human rights issues requires the involvement of stakeholders. We maintain a dialogue with our stakeholders to understand what they expect from us. We conduct a regular materiality analyses to stay up-to-date on the expectations of our stakeholders. In 2022, we also participated in the Reputation & Trust survey in Finland to examine the general public's view on reputation.

Access to remedy

At Outokumpu we encourage everyone inside and outside the company to report potential and actual human rights infringements to us, even if we are not causing or contributing to them, but are linked to them through our operations, products, or services.

All stakeholders, both internal and external, can raise their concerns to Outokumpu in various ways, including through our SpeakUp Channel. SpeakUp is an externally operated channel enabling Outokumpu employees and external stakeholders to report breaches of the Outokumpu Code of Conduct or other misconduct. This can be done confidentially and anonymously, if allowed by the local laws and regulations. The Channel is available through our website and can be used in several different languages. The VP, Sustainability and the Head of Human Rights and Supplier Sustainability can also be contacted directly via e-mail, their e-mail addresses are available on [Outokumpu's webpage](#) ↗

We operate safely, always

We believe that continuously strong safety performance correlates with improved quality and operational efficiency. Everyone at Outokumpu has the right to a safe and healthy working environment.

Taking every step necessary to protect ourselves and our colleagues, we are continuously reducing our accident record year on year. We aim to be the industry leader in safety with the vision of zero accidents.

Managing safety with a proactive focus

Our proactive safety management system, which includes hazard recognitions and Safety Behavioral Observations (SBOs), supports us in striving toward our safety targets. Hazard recognitions and SBOs are utilized to flag potential risks and unsafe acts and behaviors before they lead to accidents. Lessons from past incidents are shared with other sites in the monthly Safety Call hosted by the CEO.

Our daily work is guided by common safety principles, standards, guidelines, and our ten Cardinal Safety Rules. Safety audits are performed regularly according to a standardized audit program.

“When we work safely always, we prevent accidents and protect those around us.”

Our safety network, which comprises every site safety manager and is coordinated by the Group safety function, meets monthly to ensure up-to-date safety topics are communicated effectively and best practices are shared and adopted. In 2022, the working methods of the network were developed further to fully utilize the group’s expertise in implementing the new safety strategy. The network group was expanded to include more safety experts from sites and two face-to-face workshop meetings were held to define a common roadmap.

Safety themes in 2022

We have achieved remarkable improvements in our safety performance over the past few years, but we still have many accidents that are rooted in complacency and errors in our day-to-day behaviors. Focusing on safety culture and human factors will help us to maintain our positive safety trend performance and supports our journey towards zero accidents within our organization.

Our safety strategy and ambition were updated in 2022. The updated safety strategy is based on three pillars:

- strengthening our safety culture,
- developing our safety management, and
- utilizing the latest safety technologies.

To support the development of our safety culture, a pulse survey was launched in November to map our organization’s views on safety. Over 71% of our



To protect ourselves, our colleagues and all our stakeholders we work and carry out our day-to-day jobs and tasks in a safe manner.

employees answered the survey. According to the results, our safety culture is at a good level with the Safety Index grade being at 87. The results are used to develop an action plan for further strengthening safety culture. Going forward, the survey will be conducted regularly.

In safety management development, one of the key projects was to establish a cross-learning program for safety. Read more about the program on the next page. During the year, the safety network worked on implementing a global digital tool for harmonizing safety management. The network also conducted research into how artificial intelligence could be utilized in safety management and risk detection.

Safety performance

Outokumpu uses total recordable injuries per million working hours of employees and contractors (TRIFR) as the main safety performance indicator. Group TRIFR declined from the previous year and was 1.8 against the target of <2.0 (2.1). Group LTIFR (lost time injuries per million working hours) was 0.8 against the target of <1.2 (1.1).

The rate of all work-related accidents (total recordable injuries and first-aid treated injuries per million working hours) was 10.1 (11.9).

Proactive safety action frequency was 11,029 (8,185). This includes reported hazard observations, SBOs, and other preventive safety actions per million working hours.

Our long-term target is zero accidents.

Work-related injuries by region, accident and employee type

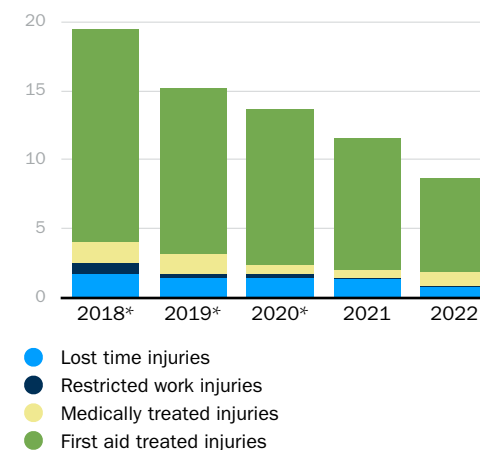
	Group	BA Europe	BA Americas	BA Fe Cr	Employees	Contractors
TRIFR ¹⁾	1.8	2.1	0.3	0.6	1.4	0.4
LTIFR ²⁾	0.8	1.1	1	2.4	0.7	0.1
Total recordable injuries ³⁾	37	27	6	4	29	8
Fatalities	0	0	0	0	0	0
Lost time injuries	17	14	2	1	15	2
Restricted work injuries	2	2	0	0	1	1
Medically treated injuries	18	11	4	3	13	5

¹⁾ Total recordable injury frequency includes fatalities, lost time injuries, restricted work injuries and medically treated injuries, per million working hours.

²⁾ Lost time injuries including fatalities and lost time injuries, per million working hours.

³⁾ Includes fatalities, lost time injuries, restricted work injuries and medically treated injuries.

Work-related injuries¹⁾



¹⁾ Per 1 million working hours.

* Including discontinued operations

The main direct causes for work-related injuries were the use of forbidden or inappropriate work methods, temporary carelessness and defects in machines and lack of operational procedures.

Health and well-being

Outokumpu encourages its employees to take care of their physical health by offering various exercise benefits and discounts to sports and well-being services. Different health support programs are also run across our sites. In addition, occupational hygiene measurements are being carried out at the Outokumpu sites to ensure a healthy working environment.

The number of occupational diseases diagnosed in the Group was 0 (0).

Total injury frequency rate was
1.8
per million working hours in 2022.



Sharing best practices in the cross-learning program

As a part of our updated safety strategy, a new cross-learning program was started at Outokumpu during 2022. In the new program, members of Outokumpu's safety network visit other sites with the aim of sharing best safety practices, increasing knowledge and helping the organization to improve our safety performance.

"I am very proud of the honesty and transparency of our different teams. Big thanks also to operations, maintenance, reliability, safety and all the other teams involved in this project. Working as a team and with this positive attitude we can make sure all Outokumpu employees and contractors work in a safe workplace free of accidents", says **Oihana Ramos**, VP – Health & Safety.

During the year, altogether 13 cross-learning visits were conducted. Key findings from these visits relate to implementing safety standards, handling of SBOs, utilization of digital tools and best practices in safety walks.

In good company

Our people are engaged in their work, and our priorities are clear. Our vision is to build a working culture on people's success, where everyone can be themselves and utilize their full potential at work.

Going forward with the new business lines

On July 1, we announced the new business area Europe organization and related appointments. With the two distinct business lines – business line Advanced Materials and Stainless Europe – business area Europe will strengthen our position as the customer's first choice in sustainable stainless steel.

The split into the two business lines has brought more transparency and visibility into our operations. In practice, it has meant closer collaboration between operations, supply chain and sales functions. We are closely working together and aligning the operations of our sites to ensure alignment within the European markets. This provides our clients an easy access to the whole range of products, while offering us more flexibility within our organization to simplify the operating model and strengthen our business orientation.

The management teams of the new business lines were formed emphasizing the diversity of the team members. During the first months, management teams have spent a lot of time together getting to know each other and visiting actively our sites in different countries to know the new organization and our people. Internal webinar discussions have been arranged regularly to engage and inform everyone.

With the launch of the new organization, we were able to utilize our existing talent pool and offer new, interesting positions to Outokumpu team members. It has been

wonderful to see our people flourish in the new roles and be proud of what they do. The new organization has meant new ways of working and has required quick adoption ability of the team members, but it has started very well in good cooperation on all levels.

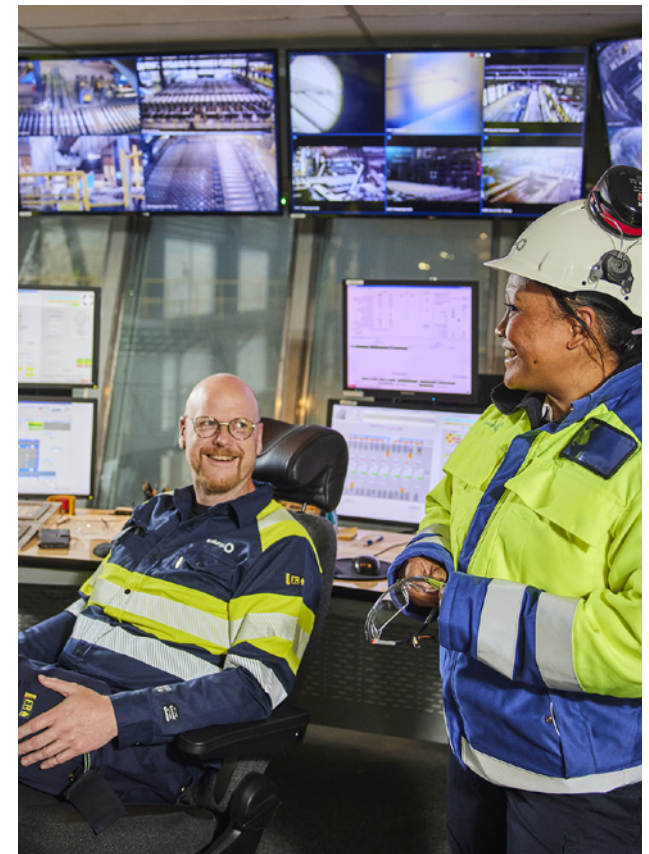
Going forward, the new organization will require new capabilities and versatile talents to be able to respond to the developing business needs. The new working model has already been pressure-tested during the third quarter with volumes being low. Agility and ability to react fast in the changing market environment are keys to the success.

Enhancing leadership and the excellence of our teams

We have continued investments in our leadership's capabilities having significant impact on our business performance and our team members' well-being at work.

After the pandemic, it has been important to bring colleagues together. Multiple management teams have participated in Team Excellence workshops to increase their performance as a team.

Our Step-Change in Leadership Excellence program continued across the organization. The program develops leaders at all leadership roles. In the Americas, especially our shift-leaders have actively participated in the License to Lead shift-leader program.



The split into the two business lines has meant closer cooperation between operations, supply chain and sales functions, and also new opportunities to our people.

Our well-established training programs continued at all levels. For example, with the Sales Academy and its Way to the Customer training, we are further enhancing our sales organization. This Outokumpu-specific training offers tools for efficient sales discussions and harmonizes the way Outokumpu is presented to the customers. Our Finance Academy concentrates on developing the core competencies of our finance team to be able to act as a trust-worthy and influential business partner.

All programs will be offered to the teams also in 2023 and will be complemented with new parts aligned with business requirements.

Developing our talents and future leaders

The key target of our talent management is to ensure that we have enough of potential in our talent pipeline to grow into our key leadership positions globally.

In our global and process-driven organization, key roles require international and cross-functional experience accompanied by agility and excellent leadership skills. During 2022, we were able to rotate more than 80% of our young talents and high potentials to key positions.

We have established extensive programs and development opportunities to grow our talent and different talent pools: young talents, those with high potential, and top leadership.

Leap – our Global Opportunity program – is a 2-year program which we offer to our young talents who are interested in moving into leadership roles very fast. We provide the opportunity to grow networks and global understanding of the company and fast-track career as international leaders. One ambition is to increase the number of females in our leadership pipeline. The program has been designed to provide customized experiences with systematic mentoring and individual training plans. For the selection process, we use various assessments and panel interviews to make the best decisions based on objective criteria.



Hybrid working model is the new normal

After the national pandemic guidances for remote working ending in many countries, we could finally get back to the offices and meet colleagues in a familiar environment.

To encourage teams to meet each other regularly, weekly coffee meetings are arranged on several locations. Informal meetings offer a great opportunity to meet-and-greet, introduce new team members and share topical information.

We want to be as flexible as possible but maintain the good elements of working together. Employees, whose tasks are suitable for remote work, have the possibility for hybrid working. At our operational sites, securing the production defines the possibilities for remote work.

The hybrid model means a balanced combination of office work and remote work. Remote work is agreed between the manager and the team members. Face-to-face work in the office is important regarding team spirit, collaboration and connecting to company and its priorities.

Early indications show that the hybrid working model approach is well received. In all cases we emphasize trust and flexibility.

In June, Leap professionals finally started their 24-months program with the first assignment. Rotations in other functions and countries are planned for the participants every 6 to 12 months, to grow their experience, develop an end-to-end understanding of our business, gain in agility, and become international leaders.

Continuous employee listening







Our vision is to build a working culture on our team members' success, where everyone can be themselves and utilize their full potential at work. With continuous employee listening, we want to make sure that we always have up-to-date understanding of our employees' experiences and commitment to work, and our strategic common goals.

To support the agile decision making and development, we have moved towards forward looking feedback culture and continuous pulse surveys. People pulse surveys are short and real-time driving for timely actions. Engagement is the basis of all people surveys, complemented with topical themes and employee life-cycle surveys. Key questions are rotated smartly to see the trends and development in the long run.

The new tool and approach were introduced in 2022 with two short pulse surveys for all employees. The first pulse survey was conducted about strategy awareness & engagement and the second one about safety awareness. We can be particularly proud of the overall results: the Engagement Index of Outokumpu team members increased to as high as 79. This is a great result above the average of the benchmarked companies and well in-line with the Organizational Health Index (OHI) used in previous years.

The people pulse surveys will be conducted on a regular basis quarterly. We want to give everyone a voice – that is the only way we know where our organization is strong and where further development is needed.

Outokumpu ways of working

	We operate safely. Always.	We work safely, comply with our cardinal safety rules, assess potential risks and take appropriate actions to mitigate them.
	We leverage the power of one Outokumpu.	We work together, share and combine our knowledge, across functions and regions to create best value for our customers.
	We deliver.	We live up to our promises with clear roles and clear accountabilities. We have a passion for continuous improvement.
	We grow people and value diversity.	We foster diversity and create work environment that allows all team members to contribute and develop.
	We act sustainably.	We are driven by creating sustainable impact, environmentally, socially and economically.
	We are a trusted partner.	We are a reliable and trusted partner towards all our stakeholders, our customers, employees, investors and the communities we operate in.

Strengthening diversity, equity, and inclusion

We at Outokumpu believe that diversity, equity, and inclusion are essential for us to continue being successful in the future. Our people live across several continents and represent different nationalities, cultures and backgrounds, religions, genders, sexual orientation, and age groups. A healthy variety of employees from different backgrounds and cultures provides us with the balance of voices and diversity of thought that we need.

In 2022, we completed our first global inclusion survey to understand where to focus our actions to foster a culture in which all employees feel welcome and that they are equally heard and have equal opportunities. The global results highlight our strengths: inclusion is on average at a high level and is driven by peers who respect and support each other and who feel that they can be themselves

at work and their work is meaningful. Women and men perceive Outokumpu as equally inclusive.

Looking at areas where we need to improve, the perception of inclusion between different employee groups is mixed. We must focus our actions on fostering a culture that is welcoming and safe for all, regardless of visible or invisible differences. We will also work on being more transparent on how we reward, promote, and hire people and to check for bias in these processes to strengthen equity in all.

Results of the survey were cascaded to the organization through local action plans. For example, in Avesta, Sweden, we are hosting monthly meetings in all process groups in operations to offer employees the opportunity to get information and to ask their questions creating participation. In Castelleone, Italy, we are committed to

increasing diversity by sourcing for new talent pools and reviewing the possibility to accommodate new restrooms and dressing rooms to hire more women in operations. In Tornio, Finland, special attention is put on increasing understanding about inappropriate behaviors and other actions strengthening inclusion such as organizing family days and team days. In the Americas, we continue to expand recruiting efforts to improve relationships with colleges, universities and alumni organizations placing focus on diverse populations attracting qualified candidates where underrepresentation exists.

The core of our journey is to strengthen our inclusive working culture. In 2023, we will organize training for all employees to understand how we can, with our everyday behavior, foster a workplace where everyone feels welcome, safe, and respected regardless of their background. We will align diversity, equity and inclusion with our existing leadership model, training programs and tools as well as arrange specific training for leaders.

Our processes and policies guide our ways of working and decision making. We are reviewing our processes for hiring, promoting, and rewarding to ensure equity in all. For example, we have established interview panels to increase objectivity in our hiring decisions. We are also acting to attract and engage more diverse talent to Outokumpu.

Finally, to measure our progress in strengthening diversity, equity and inclusion, we are tracking the diversity of our employees with a special focus on leadership teams and will organize a yearly pulse survey to track inclusion.

Building a culture of continuous dialogue

Our team members' performance is led and evaluated with the annual My Performance Commitment process (MPC). Target setting starts with the definition of the business targets at the beginning of the year. Based on the business targets, cascaded throughout the organization, each employee and manager agree on the individual targets contributing to the company targets at the right level.



Our goals for diversity, equity and inclusion

Outokumpu's ambition towards 2025 – for our personnel and leadership – is to represent the diverse societies we operate in and serve. Our Board of Directors have approved the following DE&I targets towards 2025:

Diversity targets: increase diversity in leadership

- Add 100 diverse leaders to leadership teams by the end of 2025
- Minimum of 30% of diverse leaders in all international business area/business line/function management teams by the end of 2025

Equity targets: ensure equal access to opportunities

- Correct any biases in recruitment and promotion processes by the end of 2022
- Full equality on compensation (verified by an external certification) by the end of 2023

Inclusion targets: strengthen culture where everyone feels welcome

- Enforcing the culture of zero tolerance for inappropriate behavior
- 60% agreement score on all areas of inclusion and across all diverse employee groups

The Outokumpu behaviours – integrity, delivery and growth – are incorporated in the annual performance plans. Both performance based and behavioural targets are weighted equally, having the same impact on salary reviews and incentive calculations. Development targets are set to strengthen employee skills, competencies and behaviors.

During 2022, the mid-year reviews of the performance process were replaced by continuous dialogues. These continuous dialogues consist of regular one-to-one discussions between the manager and the team member during the year. Continuous dialogue increases managers' visibility into team members' activity and achievements and supports employee engagement and well-being at work.

98% of employees in applicable countries had a regular performance development discussion with their manager. The remaining 2% are mostly on parental or other long-term leave. In countries where local contracts or regulations do not make it possible to have performance development discussions, Outokumpu follows the local procedures.

At the end of the year, we launched a new Continuous Feedback feature in our global HR platform, providing possibility to give or receive feedback from any colleague within the company. This voluntary tool helps employees to develop in their daily work and interaction with others. For the managers, it offers better visibility to their team members' accomplishments, strengths and development areas.

We will further continue our efforts in building a culture of continuous dialogue and feedback in 2023.

Extraordinary profit sharing and pay transparency

In 2022, we made significant progress towards more equitable and transparent pay. In business area Americas, all white-collar employees participated in virtual training sessions for a better understanding on the pay and compensation principles at Outokumpu. The

team members were given visibility to their individual pay grades and comparatio supporting our principles of transparency and openness. We will expand this successful pilot to other countries next year. A Group-wide pay analysis is planned for 2023 to identify possible pay gaps and take corrective actions.

Our ESG ambitions are included in our incentive plans. Safety has been a key target in our short-term incentive plans for many years already, and as of 2022, our SBTi target of reducing our CO₂ emissions per ton of stainless steel produced has been included in our performance share plan. In 2023, we will also include a diversity target in our short-term incentive plan for all employees in managerial positions.

In addition to the global incentive programs, Outokumpu's Board of Directors decided to pay an extraordinary additional bonus to reward our team members for the solid financial performance in 2022. Thanks to the flexible payment schedule, we were able to support the individuals and their families in the challenging times faced during the year. Exceptional cost-of-living payments were also made in three European countries impacted the most by the war in Ukraine and record-high inflation.

Smooth collaboration between the management and employees

To ensure good cooperation and understanding of our different employee groups, we are committed to informing and consulting our employees and their representatives.

The Outokumpu Personnel Forum is an important information channel between our personnel and management in the European operations. The Forum is based on the European Works Council Directive. Due to the pandemic, this year's meeting in Italy was the first face-to-face meeting since 2019.



Our people by region

	2022	2021	2020 ^{*)}
Finland	2,415	2,394	2,517
Germany	2,018	2,043	2,326
Sweden	1,542	1,566	1,888
The United Kingdom	105	93	502
Other Europe	677	750	747
Europe	6,757	6,846	7,980
The United States	963	947	1,010
Mexico	815	804	786
South America	8	80	84
Americas	1,786	1,831	1,880
Asia/Rest of the world	48	50	55
Group total	8,591	8,727	9,915

* Including discontinued operations

Personnel Forum appoints the Group Working Committee, which is responsible for the operative cooperation between the management and employees. During the year, the committee was able to convene face-to-face once and three times virtually.

In 2022, the number of employees decreased by 82 globally (2021: 506). Outokumpu's working hours, minimum notice periods, vacation times, wages, and other working conditions are consistent with the applicable local laws. Outokumpu maintains a consistent policy of freedom of association. All Outokumpu employees are free to join trade unions according to the local rules and regulations. In 2022, 78% of the Group's employees were covered by collective agreements (2021: 78%). In total, 29 days in 2022 were lost due to strikes (2021: 16).



Over 100 voluntary projects all around the world

To celebrate the commitment of our people and the world-class response rate in our global employee survey in 2021, we wanted to share the good with the communities and people around us during this year.

More than hundred diverse voluntary projects have been sponsored in our neighboring communities all around the world as part of our social responsibility. The focus has been on projects linked to sustainability both from environmental and social aspects.

Selected projects, chosen by the local steering groups, varied from supporting children, elderly people, and minority groups, to building better surroundings for communities and organizing events or to increase the safety or environmental awareness.

To mention few of the numerous projects, in Vilnius, Lithuania, we sponsored planting trees, and taught the elderly people to use mobile devices and internet. In Avesta, Sweden, one of the projects improved first aid preparedness on a local riding club. Our Asian colleagues in Singapore, Thailand and Vietnam, arranged cleaning activities on near-by beaches and parks.

Stakeholder engagement

We take our social responsibility as a corporate citizen seriously. We recognize that our operations have an impact both on a local level and on the wider society.

One of our ways of working is being a reliable and trusted partner towards our stakeholders: our customers, employees, investors, suppliers, and the communities we operate in. For us to be able to achieve our vision of being the customer's first choice in sustainable stainless steel, we maintain a dialogue with our stakeholders to understand what they expect from us.

We conduct a regular materiality analysis to keep up-to-date on the expectations of our stakeholders. In 2022, we also participated in the Reputation & Trust survey in Finland to examine the general public's view on our reputation.

Read more about [our suppliers](#) and [our employees](#).

Customers

In the stainless steel market, Outokumpu is known for the high quality of our products, our comprehensive product portfolio, and our technical expertise. Our customers represent several industries, which means that we have a strong and balanced customer base spread across the globe and a range of industries. Our customers use our stainless steel to construct buildings and infrastructure, produce energy, and manufacture appliances and cars, for example.

We work to solve the challenges our customers face and work together with them to find new application areas where stainless steel can be used. Our innovations date back to the time when stainless steel was first invented. Today, our customers are more and more interested

in lowering the carbon footprint of their products, in environmental aspects, and in their entire value chain.

In 2022, we launched a new emission-minimized Circle Green product line and a product-specific carbon footprint based on continuous production data as the first stainless steel producer in the industry to do so. The product-specific carbon footprint allows our customers to use the exact footprint of our products in their own carbon footprint calculations.

We collect feedback from our customers as a part of the sales process. They are mostly satisfied or very satisfied with their business relationship with us. In their opinion, our strengths are quickly reacting to requests, understanding customer needs and being easy to reach. One improvement area continues to be our delivery performance.

In 2022, customer cooperation continued in hybrid ways, with both face-to-face meetings and remote cooperation. We also resumed visiting fairs, where our new virtual mill tour allowed our customers to visit our operations in Tornio, Finland at the same time as visiting our booth.

Outokumpu takes several measures to ensure the safe use of our products. We offer safety information sheets for stainless steel in the EU and provide material safety data sheets for the US market. For ferrochrome products, we instruct our customers on safe use. We also comply with relevant product requirements such as REACH, RoHS and

ELV, and we strictly control that there is no contamination of radioactive material in the steel. No health and safety incidents caused by our products were reported to us in 2022.



We are a significant member of our communities and, in many cases, one of the few big private-sector employers in the area.

Communities

Outokumpu's production sites are often located in relatively small towns where we are a significant member of those communities and, in many cases, one of the few big private-sector employers in the area. Many of our production sites have long and interesting histories: some of our sites in Finland, Germany and Sweden have been producing metal products for decades or even centuries. We recognize that our decisions might have a major impact on communities, our personnel and local suppliers and service providers.

Our sites engage regularly with local community representatives, especially on the topics of employment, environment, energy, or sponsoring. We also maintain continuous cooperation with local schools and universities, NGOs, our neighbors and other companies.

Ongoing permit processes are one important topic that is discussed with local stakeholders. Based on these discussions with the neighboring communities and with authorities, no significant negative impacts on local communities have been identified.

In 2022, we were again able to organize family day events at our sites and they were again very well received, allowing the families of our team members to see our operations for themselves. Outokumpu organizes open-door events also for our neighbors at our production sites.

Before focusing on stainless steel, Outokumpu operated mines both in Finland and elsewhere. The decision to focus on stainless was taken some twenty years ago, and Outokumpu currently operates one mine, the Kemi chrome mine, which is an integral part of our stainless steel production, as it is chrome that makes steel stainless. In 2022, Outokumpu continued to monitor its old mine sites in Finland, both those where Outokumpu still has obligations and those where they have ended. In Enonkoski, Finland, Outokumpu investigated the mine area and will apply for an environmental permit to restore the area. Outokumpu has environmental permits at a few old mines. In 2022, two minor environmental



Restoring old Enonkoski mine area

Outokumpu investigated the current situation at one of its old mines in Enonkoski, Finland, in 2021, and decided in 2022 to restore the old mining area as far as necessary. To do so, we will apply for an environmental permit. In this way, we will know the current situation well enough to plan for restoration.

Before applying for the environmental permit, we will thoroughly investigate the current situation of the Enonkoski mine, and a field survey was started in the fall. The research will include water system, tailings ponds and their covering structures, the water routes and overflow areas, ground water pipes and tailing sand areas. Surface water and its quality in the nearby water bodies will be measured in approximately 20 research spots. Samples will be taken also in the beginning of 2023.

In the second phase, the research will be extended for instance to ground sediments and groundwater quality. Investigating the current situation will take some 1–2 years. After that, we will know what kinds of restoration measures are needed and can apply for an environmental permit.

permit breaches were observed: in Hammaslahti annual average of leachate pH value and in Kotalahti annual average of leachate iron concentration did not meet the environmental permits' requirements.

[Information on old mines ↗](#)

[List of Outokumpu's operating sites ↗](#)

Non-governmental organizations

Non-governmental organizations, or NGOs, are an important stakeholder group for Outokumpu: they provide us external views on expectations towards big companies like Outokumpu and our impact on the nature and society. For example, regarding climate change, the dialogue has helped both sides to understand its urgency and related actions and policies. Other recurring topics are ongoing permit processes and other environmental issues. We are thankful for NGOs as they highlight any issues in our operating environment.

Since a Finnish NGO, Finnwatch, assessed critically our supply chain sustainability monitoring and purchasing, we have continued a dialogue with them, and Finnwatch has thanked Outokumpu for the actions taken, such as human rights impact assessment and committing to the UN guiding principles on business and human rights, and calls for a further increasing the transparency of the supply chain. In 2022, we continued to strengthen our monitoring: our team was strengthened, and we launched a separate Supplier Code of Conduct and human rights policy.

[Read more on our supply chain ↗](#)

Associations, memberships and public affairs

Outokumpu is a member of many international organizations and associations, such as the International Chamber of Commerce (ICC), the European Steel Association (Eurofer), the International Chromium Development Association (ICDA), EUROALLIAGES and EUROSLAG. We are actively involved in and support the work of these associations. For example, we provide relevant information to decision-makers and experts



for the development of the business environment and legislation.

Outokumpu also participates in the work of trade organizations and is a member of industrial federations and associations in Finland, France, Germany, Italy, the Netherlands, Sweden, the UK, the US and Australia. These organizations advance industry views and contribute to national development. Outokumpu is also a member of the Sustainable Mining network in Finland and committed to the Finnish Sustainable Mining standard, based on the Canadian initiative Towards Sustainable Mining.

We conduct our public affairs through industry associations like Eurofer towards governing bodies and regulators. Outokumpu participates in different working groups in these associations, where the aim is to provide expertise to help decision-makers. In these forums, members share best practices and obtain benchmark

We are a
trusted partner
towards our
stakeholders.

data relating to, for example, the environment, R&D, product life cycles, product and chemical safety, and occupational safety. Members also contribute their own data for use in the industry reports, such as the ICDA's safety and sustainability reporting.

In 2022, Outokumpu's membership fees and other contributions to the associations amounted to EUR 728,000.

Sponsoring and support

In sponsorships, Outokumpu prioritizes connections to stainless steel, sustainability, talent, and education. Local sponsorship follows the same guidelines. Locally we sponsor for instance significant local projects, sports associations, and artworks by donating stainless steel. Outokumpu does not take part in or otherwise support political activities, whether they are local, national or international.

Outokumpu also makes discretionary donations for the common good as a responsible corporate citizen. These donations are approved by the Leadership Team or by the Board of Directors. In 2022, Outokumpu's shareholders approved in the Annual General Meeting the suggestion by our Board of Directors to donate up to EUR 1,000,000 to support relief efforts in Ukraine and neighboring countries. Half of this sum was donated to UNICEF and half to the Red Cross.

Outokumpu supports research related to its field of industry and maintains a close cooperation with educational institutes. We offer apprenticeships to local colleges and offer student placements also in the form of one-year programs. We also introduce our operations to schoolchildren and local students.

Outokumpu has also been among the founders of a number of technological, research and educational funds. These funds support and promote university-level research and teaching and business opportunities. Examples include the Technology Industries of Finland Centennial



1,000,000 euros to relief work in Ukraine

We were shocked by the Russian attack on Ukraine, and thankful when our shareholders approved the suggestion by our Board of Directors to donate up to 1,000,000 euros to relief work in Ukraine. Half of this sum went to UNICEF and half to the Red Cross.

Before that, our employees wanted to help Ukrainian refugees by engaging in various support actions and individual initiatives in the neighboring countries, and Outokumpu donated also smaller amounts locally. In Poland, we have for example made a local donation for medical assistance to support transportations of medical supplies to Ukraine. "We talk about our direct neighbors – a neighboring country to which our people have a lot of connections, both private and business," says **Krzysztof Kurjański** who heads our service center in Poland. "Our employees in Poland have been very active in this situation, engaging in various supporting actions and individual initiatives, such as providing transportation for Ukrainian refugees and collecting, for example, toys for kids. The scope of support exceeds anything we have experienced before."

Foundation and the Fund for the Association of Finnish Steel and Metal Producers.

In 2022, Outokumpu spent some EUR 1,061,000 in sponsoring.

Investors and shareholders

Outokumpu's share is a so-called people's share in Finland, with households and private investors owning more than a quarter of its outstanding shares. The largest shareholder is Solidium Oy, the Finnish-state owned investment company, who owned 15.5% of the outstanding shares at year-end. The share of international institutions' ownership slightly decreased during the year and reached a level of 30.8% at the end of 2022.

Outokumpu continued its regular and active communication with investors and analysts throughout the year. The key topics in 2022 were the unprecedented situation in the energy market, increased cost inflation, the Russian attack on Ukraine and its consequences as well as the overall market environment including raw material and stainless steel price development. Other topics included Outokumpu's second phase of the strategy and related financial targets, strengthened balance sheet, normalized EBITDA level, capital allocation and sustainability.

In 2022, after the global COVID-19 pandemic subsided, Outokumpu again started to meet its investors and analysts physically, but certain conferences, seminars and roadshows were still arranged as virtual events. The Annual General Meeting was held at the company headquarters in March 2022 under special arrangements.

In June, Outokumpu arranged its Capital Markets Day 2022 physically in Helsinki, Finland. The event was also broadcasted as a live webcast and close to 250 people participated in the event virtually. In the event, Outokumpu announced that it had completed the first phase of its strategy ahead of time and reached both financial targets. The company also announced the second phase of its strategy, related financial targets and the new dividend

policy. In the second phase of the strategy, there is an increased focus on shareholder returns and according to the new dividend policy, Outokumpu aims to distribute a stable and growing dividend to be paid annually.

In connection with the Capital Markets Day 2022, we also took our institutional investors, analysts and bankers on a site visit to our Kemi mine and Tornio operations in Finland. Another site visit was arranged in September, when Outokumpu participated in Nordea's US site tour for

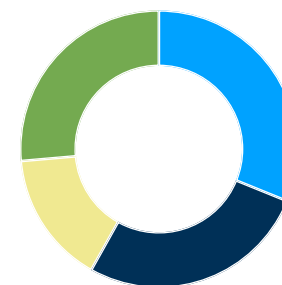
Principal shareholders on December 31, 2022

	Shares	%
Solidium Oy	70,793,208	15.50
Varma Mutual Pension Insurance Company	21,938,403	4.80
Ilmarinen Mutual Pension Insurance Company	12,629,316	2.76
The Social Insurance Institution of Finland	9,298,652	2.04
Elo Mutual Pension Insurance Company	5,875,000	1.29
State Pension Fund	5,500,000	1.20
Mandatum Life	5,136,645	1.12
Danske Invest Finnish Equity Fund	4,047,186	0.89
Nordea Life Assurance Finland Ltd.	3,130,615	0.69
Equity Fund Evli Europe	2,362,903	0.52
OP Life Assurance Company Ltd.	2,311,047	0.51
Helander Hannu-Jukka	1,672,800	0.37
Nordea Pro Finland Fund	1,633,043	0.36
Sinituote Oy	1,588,560	0.35
Säästöpankki Kotimaa - Equity Fund	1,541,975	0.34
OP-Finland Small Firms Fund	1,379,229	0.30
Laakkonen Mikko Kalervo	1,156,000	0.25
Insurance Company Fennia Life	1,039,153	0.23
Etola Erkki Olavi	1,000,000	0.22
Seligson & Co Equity Fund	959,288	0.21
Total	154,993,023	33.95
Nominee accounts held by custodian banks	140,552,290	30.76
Treasury Shares	12,739,837	2.79
Other Shareholders	148,589,298	32.50
Total	456,874,448	100.00



In our Capital Markets Day 2022, we announced that we had completed the first phase of our strategy ahead of time.

Shareholders by group on December 31, 2022



- Nominee registered and non-Finnish holders 31.13%
- Finnish institutions, companies and foundations 26.99%
- Solidium Oy¹⁾ 15.5%
- Households 26.38%

¹⁾ Solidium Oy is wholly owned by the Finnish state
Source: Innovatics

Finnish institutional investors, taking them to our Calvert mill in Alabama.

During 2022, Outokumpu participated in eight seminars or roadshows and had 57 one-on-one meetings with investors. On top of that, we arranged four breakfast meetings with Finnish institutional investors after every quarterly result and four pre-silent conference calls, which were open for everyone to participate.

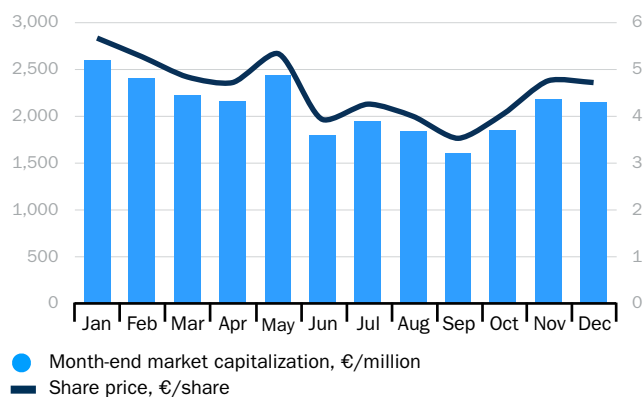
In November, Outokumpu Board of Directors approved a share buyback program of up to EUR 100 million under the authorization of the Annual General Meeting 2022. The maximum number of shares to be repurchased under the program is 20 million, representing approximately 4.4% of the company's total number of shares. The program commenced on November 7, 2022, and ends no later than on March 24, 2023.

Through the share buyback program, Outokumpu seeks to mitigate and manage the dilutive impact of the company's outstanding convertible bonds. The repurchased shares will be initially held by Outokumpu as treasury shares and may be used to meet its obligations under the convertible bonds. Alternatively, Outokumpu may decide to cancel any or all of the repurchased shares and reduce its capital accordingly. The share repurchases will be funded by using funds from the unrestricted equity. Prior to the announcement Outokumpu held 4,164,711 of treasury shares, representing 0.91% of the company's total number of shares.

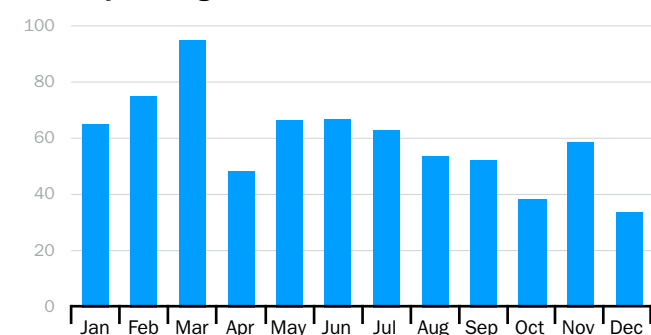
At the end of the year, the total share capital was EUR 311 million. All shares in Outokumpu carry equal voting and dividend rights. On December 31, 2022, the total number of Outokumpu shares was 456,874,448. Outokumpu had acquired 8,575,126 million shares under the share buyback program by the end of 2022. As a result, the number of treasury shares held by Outokumpu rose to 12,739,837 shares (Dec 31, 2021: 4,302,471 shares).

Outokumpu's shares are listed on the Nasdaq Helsinki Large Cap list under the trading code OUT1V and

Market capitalization and share price development

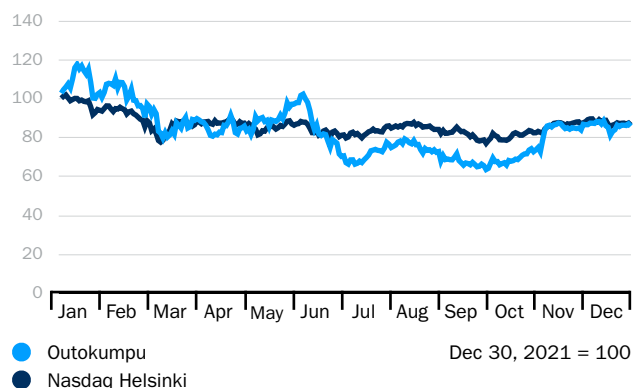


Monthly trading volume, million shares



Source: Nasdaq

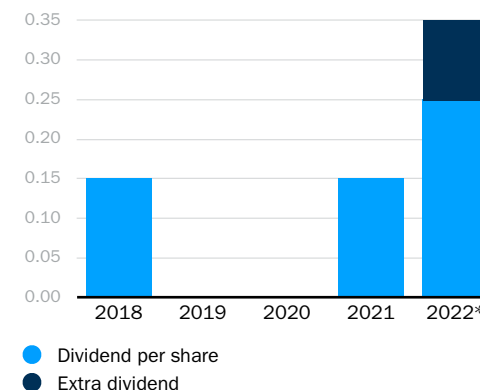
Outokumpu share price development in 2022



incorporated into the Finnish book-entry securities system. Outokumpu's shares are also traded on various alternative platforms.

In 2022, Outokumpu's share price was EUR 6.48 at its highest and EUR 3.51 at its lowest (2021: EUR 6.01 at its highest and EUR 3.36 at its lowest). The share price closed at 4.73 at the end of the year, decreasing 14% from the closing period of EUR 5.50 at the end of 2021. The market capitalization was EUR 2,161 million at the

Dividend/share, €



* Proposal by the Board of Directors. The extra dividend of EUR 0.10 per share is a one-time extra dividend that is proposed to be distributed to the shareholders for the exceptionally good result of the account period.

end of the year, compared to the level of EUR 2,513 million at the end of 2021.

During 2022, the average daily trading volume in Outokumpu shares on Nasdaq Helsinki was 2.8 million shares. 721 million Outokumpu shares were traded in total on Nasdaq Helsinki during the year (2021: 880 million shares).

Ethics and compliance

At Outokumpu, we conduct business with high integrity. We are committed to complying with all applicable laws and regulations and to making sustainable, ethical judgements as part of our daily work. Responsible and ethical business practices are owned by everyone at Outokumpu, and it is up to all of us to do the right thing!

Close co-operation with business areas, group functions and governance bodies

The implementation of Outokumpu's group-wide ethics and compliance (E&C) program continued efficiently in close co-operation with business areas, group functions and E&C governance bodies during 2022. As part of these activities, the global E&C team started a visibility tour to increase understanding of E&C matters through direct engagement with internal stakeholders. During the tour, several Outokumpu sites were visited, and numerous E&C discussions and training sessions were held with colleagues globally. Please see more information about the E&C visibility tour on the next page.

In addition to the E&C visibility tour, close co-operation continued with the E&C governance bodies, including the Compliance Steering Group, Compliance Network and the newly established Group Data Protection Network.

Trade sanctions compliance as a priority

Outokumpu is committed to complying with all applicable laws and regulations, including applicable sanctions regulations, and we expect our suppliers, sub-suppliers and other business partners to comply with these requirements as well.

Within the trade compliance area, Outokumpu has a Know Your Business Partner process in place, on the basis of which business partners are identified and monitored based on risk. Sanctions monitoring is a part of this process, and Outokumpu conducts enhanced case-by-

case and regular compliance screenings in order to ensure that we comply with applicable sanctions regulations and do not conduct business with any party in breach of these regulations. Outokumpu is also constantly monitoring and following and is committed to complying with export and import restrictions arising from applicable export control and sanctions regulations. Furthermore, our employees are regularly being trained on the adherence to sanctions regulations.

Due to the Russian invasion of Ukraine, Outokumpu strengthened its actions within sanctions compliance during 2022 and, for instance, conducted enhanced compliance screenings as a matter of priority in order to ensure that all applicable sanctions regulations are complied with. In addition, the assessment of the different elements of Outokumpu's sanctions compliance program was in focus. In general, E&C risks, including risks related to corruption, are assessed and reviewed annually.

Competition law compliance as a continuous focus area

Outokumpu is committed to complying with applicable competition laws and regulations and is continuously investing significant efforts in this area. Outokumpu's global E&C team continued to support and give daily advice to business areas and group functions in their competition law related questions to help ensure constant attention and strict adherence to applicable competition laws. In 2022, the key focus was on the assessment of different elements of Outokumpu's competition law



Responsible and ethical business practices are owned by everyone at Outokumpu.

compliance program. In addition, several competition law compliance face-to-face and webinar trainings were held for various target groups as part of the E&C visibility tour. Additionally, in 2022, 96% of administrative employees completed the competition law compliance eLearning.

Engaging trainings and communication

Training and communication are key elements of Outokumpu's group-wide E&C program as it is important that our employees know how to comply with and interpret the rules as part of their daily decision-making. In addition to the relaunch of the competition law compliance eLearning, 97% of administrative employees completed our Code of Conduct eLearning and 99% of administrative employees completed Anti-Corruption eLearning. These eLearnings were complemented by numerous other face-to-face and webinar training sessions, among other forms of efforts to increase awareness and understanding of these matters globally.

We encourage everyone to speak up!

At Outokumpu, we encourage open and transparent communication. We also encourage everyone to speak up if any concerns arise. There are several ways to report concerns, which are mentioned in Outokumpu's Code of Conduct, including the SpeakUp channel. Outokumpu's SpeakUp channel is an externally hosted channel where concerns can be reported confidentially and anonymously, to the extent allowed by applicable laws and regulations.

Speaking up was a topical matter for Outokumpu employees in 2022 as part of the E&C related trainings and communications. In addition, the implementation of the requirements deriving from the EU Whistleblower Protection Directive and consequent local laws and regulations continued in 2022 in close co-operation between the E&C team and the internal audit team. More information about misconduct reporting and internal investigations at Outokumpu can be found in our review by the Board of Directors, Corporate Governance statement and website.



Making ethics and compliance visible to colleagues globally

Responsible and ethical business practices are owned by everyone at Outokumpu. Outokumpu's global E&C team invests significantly into various training and communication efforts on a regular basis to help ensure that our employees globally know how to apply E&C rules and principles in their daily decision-making. At Outokumpu, E&C related trainings are given both through mandatory eLearnings as well as face-to-face trainings, webinars and discussions.

In 2022, the training and communication element was in increased focus. The global E&C team visited several of our sites and met teams also online. There were training sessions organized about several E&C topics, such as our Code of Conduct, competition law compliance, anti-corruption, sanctions compliance as well as the importance of speaking up. As part of these visits and trainings, the E&C team engaged with colleagues globally and had lively discussions on topical E&C matters. In addition to the training sessions, engaging E&C related communication was distributed regularly through the company's intranet and in other ways.

Research and development

R&D is a global function working together with all Outokumpu sites and functions. R&D is the provider of leading technical expertise in the group. As the core of our R&D mission, we create a culture of innovation and development. This enables Outokumpu being the leader of sustainable stainless steel.

The first phase of R&D strategy was finalized in 2022. A solid foundation was set in both R&D must-win battles, sustainable production process technologies and future products and customer applications. The R&D team continued working in the three R&D centers located in Avesta, Sweden, in Krefeld, Germany and in Tornio, Finland focusing on the execution of the R&D programs. In 2022, Outokumpu's R&D expenditure totaled EUR 15 million, 0.16% of net sales (2021: EUR 14 million and 0.19%, 2020: EUR 21 million and 0.4%).

Sustainable production process technologies

By 2030, Outokumpu aims to reduce its total emission intensity by 30% from the 2020 baseline. This requires development of new technologies and more efficient production.

In 2021, we embarked on the research program Towards Carbon Neutral Metals (TOCANEM) financed by Business Finland. In 2022, this research program ran with full speed collaborating with leading research institutes to address fundamental development needs: The biocoke project has proceeded to a phase where Outokumpu is planning for a significant investment in Tornio.

Another key topic in 2022 was the development of a roadmap related to alternative heating technologies to reduce CO₂ emissions. Further ongoing projects are related to the utilization of different types of waste. Another pillar is the development of completely new



Our R&D team includes three R&D centers in Avesta, Sweden, in Krefeld, Germany and Tornio, Finland, focusing on the execution of our R&D programs.

production technologies related to different process steps. Modeling and simulation tools are widely used in these activities.

Future products and customer applications

Megatrends drive stainless steel demand growth and motivates R&D to develop new steel grades and improve existing grades for new applications. The focus is on the Outokumpu's Pro product family for demanding end-use and offering sustainable solutions for high customer satisfaction. To strengthen our high temperature material offering two new grades reached the development phase in our productization process. A new martensitic Dura 4419N grade with outstanding combination of corrosion and wear resistance was introduced for the knife industry. Under the Swedish strategic innovation program for Metallic Materials seven projects covering various topics were approved for funding.

External research collaboration

Outokumpu has an extensive network of external R&D collaboration partners, including top class universities and institutes, technology suppliers and customers. Outokumpu actively participates in both national and international collaborative R&D projects and programs.

“Our emission reduction targets require development of new technologies and more efficient production.”

Calculating product specific carbon footprint as we go

In 2022, Outokumpu became the first stainless steel producer to provide a product-specific carbon footprint on its stainless steel products. In addition to customer value, the product-specific carbon footprint brings full transparency to our sustainability work.

“As the global leader in sustainable stainless steel, we are the forerunner to push the whole industry forward. At the same time when customers are paying more attention to cutting down emissions, they are asking for more specific information about the carbon footprint for each product and solution. Now customers can utilize the data to calculate the product carbon footprints of their products and provide more sustainable solutions to the market”, says Stefan Erdmann, Chief Technology Officer & Group Sustainability at Outokumpu.

The distinct feature of the calculation model Outokumpu is using is based on continuous follow-up of production data. Basically, it is a massive data mining exercise.



About reporting

Outokumpu's sustainability reporting is prepared with reference to the GRI Standards.

“In sustainability reporting, we report on the material developments of continuing sites and changes in 2022. Sustainability information is also available on our website.”

Scope of the report

Outokumpu has published its sustainability review as part of the Annual Report 2022. Sustainability information is also available at www.outokumpu.com/sustainability.

Outokumpu Oyj reports on the material developments of continuing sites and changes in 2022 as part of the Annual Report. The reported data includes all continuing sites. Additional information is published on the company's [website](#). The Annual Report 2022, including Sustainability Review, was published in March 2023.

Outokumpu's report has been prepared with reference to the GRI Standards 2021. The materiality assessment from 2021 and continuous communication with stakeholders were the basis for the decision on material topics and relevant disclosures.

The independent practitioner's assurance report on the limited assurance conclusion is available on page 87 in the Sustainability Review. The Financial Statements 2022 have been audited, and the auditor's report is available after the Financial statements.

Measurement and estimation methods

Economic responsibility

Most figures relating to economic responsibility presented in this report are based on the consolidated financial statements issued by the Outokumpu Group and collected through Outokumpu's internal consolidation system. Financial data has been prepared in accordance with International Financial Reporting Standards (IFRS). Outokumpu's accounting principles for the Group's consolidated financial statements are available in note 2 to the consolidated financial statements.

All financial figures presented have been rounded, and consequently the sum of individual figures may deviate from the presented aggregate figure. Key figures have been calculated using exact figures. Using the GRI guidelines as a basis, economic responsibility figures have been calculated as follows:

Direct economic value generated

Direct economic value generated includes all revenues received by Outokumpu during the financial year. The sources of revenue include sales invoiced to customers, net of discounts and indirect taxes, revenues reported as other operating income (including gains from the disposal of Group assets), and revenues reported as financial income, mainly dividend and interest income.

Economic value distributed

Operating costs include the cost of goods and services purchased by Outokumpu during the financial year. Employee benefit expenses include wages and salaries, termination benefits, social security expenses, pension and other post-employment and long-term employee benefits, expenses from share-based payments and other personnel expenses. Taxes paid to the government include income taxes. Deferred taxes are excluded from the figure. Payments to providers of capital include interest costs on debt and other financial expenses during the financial year. Capitalized interest is deducted from this figure. The dividend payout is included in the



payments to providers of capital according to the proposal by Outokumpu's Board of Directors.

Community investments consist of donations to and investments in beneficiaries external to the company.

Local suppliers

In this report, vendors are defined as local if they are located in the same country as the Outokumpu location. Significant locations for suppliers are production units that have a melt shop, ie. Avesta, Sweden; Calvert, the US; and Tornio, Finland.

Environmental responsibility

All energy and environmental informations are based on the operational control. Outokumpu's climate change target is based on science and approved by the Science Based Target initiative. The target includes CO₂eq intensity of direct and indirect emissions of electricity and upstream emissions. Emissions are consolidated on production control.

The green house gas measuring and reporting is following the GHG Protocol Corporate Standard and Value Chain Standards. Site falling under the European emission trading system (EU ETS) report the direct emission according to the verified EU ETS requirements.

CO₂eq emissions of electricity are calculated and monitored by the emissions factor of Outokumpu's electricity mix of 93 kg CO₂eq/MWh (2021: 124 kg CO₂eq/MWh), given by the electricity supplier for the used electricity and calculated as weighted average. It includes 33% of electricity use in EU market which is coming with guarantees of origin from ownerships in power production. In addition, the location-based electricity emissions are disclosed. They are calculated by the published country-specific emissions factors of the electricity generation of 2020 or 2021 if available.

CO₂eq emissions outside the company (scope 3), except electricity, are covered by more than 95%. They are calculated as follows:

- For alloys: by emissions factors of the life-cycle assessment of relevant association. Emission factor of ferronickel was calculated with 40% from supplier specific emissions and 60% of LCA e-factor published in 2021. Emissions of sold ferrochrome are not allocated to the stainless steel production of the company.
- E-factor for lime and dolomite are calculated with 71% from supplier specific emissions. For used gases, electrodes and coke: by emissions factors of ISO 14404.
- For upstream emissions of light fuel oil: by emissions factors of WorldSteel Association.
- For internal and product transport: by typical distances and type of transport with the well-to-wheel emissions according to the EEA report 2/2022 of the European Environmental Agency for the European transport and with the published e-factors of US EPA for US transport.
- For business travel: for the cars, trains and flights by CO₂eq reports of the service provider.

Upstream transport was assessed on data of environmental product declaration of 2020, to be at about 3% of the scope 3 emissions but excluded from scope 3 emissions.

The recycled content according to ISO 14021 (recycled steel content) is calculated as the sum of pre and post consumer scrap related to crude steel production. Additionally, we report on the recycled material content including all recycled metals from treated own waste streams entering the melt shop.

Energy efficiency is defined as the sum of specific fuel and electricity energy of all processes calculated as energy consumption compared to the product output of that process. It covers all company productions: ferrochrome with 15%, melt shop, hot rolling and cold rolling processes. Used heat values and the consumption of energy are taken from supplier's invoices.

Water withdrawal is measured for groundwater surface and sea water, taken from municipal suppliers and estimated for rainwater amount.

Waste generation details on company's typical waste categories of hazardous and non-hazardous classification are reported on webtool data. In 2022, waste is reported as generated, diverted from landfill and landfilled. The offsite and onsite recycling and recovery are reported in the table. Waste treated is counted as landfilled waste.

Customers' CO₂ savings are calculated with the difference of world's stainless steel footprint of 6.12 tonnes CO₂eq per tonne crude steel with 40% scrap recycling and 30% of nickel pig iron production and Outokumpu's footprint of 1.70 tonnes CO₂eq per tonne steel and company's production.

Social responsibility

Health and safety figures

Health and safety figures reflect the scope of Outokumpu's operations as they were in 2021.

Safety indicators (accidents and preventive safety actions) are expressed per million hours worked (frequency). Safety indicators include Outokumpu employees, persons employed by a third party (contractor) or visitor accidents and preventive safety actions. A workplace accident is the direct result of a work-related activity and it has taken place during working hours at the workplace.

Accident types

- Lost time injury (LTI) is an accident that caused at least one day of sick leave (excluding the day of the injury or accident), as the World Steel Association defines it. One day of sick leave means that the injured person has not been able to return to work on their next scheduled period of working or any future working day if caused by an outcome of the original accident. Lost-day rate is defined as more than one calendar day absence from the day after the accident per million working hours.
- Restricted work injury (RWI) does not cause the individual to be absent, but results in that person being restricted in their capabilities so that they are unable to undertake their normal duties.
- Medically treated injury (MTI) has to be treated by a medical professional (doctor or nurse).

- First aid treated injury (FTI), where the injury did not require medical care and was treated by a person themselves or by first aid trained colleague.
- Total recordable injury (TRI) includes fatalities, LTIs, RWIs and MTIs, but FTIs are excluded.
- All workplace accidents include total recordable injuries (TRI) and first aid treated injuries (FTI)

Proactive safety actions

Hazards refer to events, situations or actions that could have led to an accident, but where no injury occurred. Safety behavior observations (SBOs) are safety-based discussions between an observer and the person being observed. Other preventive safety action includes proactive measures.

Sick-leave hours and absentee rate

Sick-leave hours reported are total sick leave hours during a reporting period. Reporting units provide data on absence due to illness, injury and occupational diseases on a monthly basis. The absentee rate (%) includes the actual absentee hours lost expressed as a percentage of total hours scheduled.

Employee benefit expenses

Employee benefit expenses include wages and salaries, termination benefits, social security expenses, pension and other post-employment and long-term employee benefits, expenses from share-based payments and other personnel expenses.

Administrative employees

Administrative employees include all white collar employees that were active as of December 31, 2022. For Code of Conduct eLearning administrative employees include also newly hired managers of operators (hired since January 1, 2022).

Training days per employee

The number of days spent by an employee in training when each training day is counted as lasting eight hours.



Bonuses

A bonus is an additional payment for good performance. These figures are reported without social costs or fringe benefits.

Personnel figures

Rates are calculated using the total employee numbers at the end of the reporting period. The calculations follow the requirements of GRI Standards. The following calculation has been applied e.g.

Hiring rate = $\text{New Hires} / \text{total number of permanent employees by year-end}$

Average turnover rate = $(\text{Leavers} + \text{New Hires}) / (\text{total number of permanent employees by year-end} \times 2)$

Safety indicators include our employees, contractors and visitors.

Days lost due to strikes

The number of days lost due to strikes is calculated by multiplying the number of Outokumpu employees who have been on strike by the number of scheduled working days lost. The day on which a strike starts is included.

Statement of use	Outokumpu Oyj has reported with reference to the GRI Standards 2021 for the period from 01.01.2022 to 31.12.2022.
GRI 1 used	GRI 1: Foundation 2021
Applicable GRI Sector Standard	No applicable GRI Sector Standard

GRI standard	Disclosure	Omission	Location in Annual report 2022	Assured
General disclosures				
GRI 2: General Disclosures				
2-1	Organizational details		Corporate Governance Statement CG 90, back cover	
2-2	Entities included in the organization's sustainability reporting		Scope of the report SR 79	
2-3	Reporting period, frequency and contact point		Scope of the report SR 79, back cover	
2-4	Restatements of information		Scope of the report SR 79	
2-5	External assurance		Scope of the report SR 79, Assurance report SR 87-88	
2-6	Activities, value chain and other business relationships		We are Outokumpu AR 4, Value creation AR 11, Stainless steel market AR 12-16	
2-7	Employees		Our people SR 62-67	x
2-9	Governance structure and composition		Corporate Governance Statement CG 90-103	
2-10	Nomination and selection of the highest governance body		Corporate Governance Statement CG 98	
2-11	Chair of the highest governance body		Corporate Governance Statement CG 91	
2-12	Role of the highest governance body in overseeing the management of impacts		Corporate Governance Statement CG 95-97	
2-13	Delegation of responsibility for managing impacts		Corporate Governance Statement CG 95-97	
2-14	Role of the highest governance body in sustainability reporting		Corporate Governance Statement CG 95-97, Review by the Board of Directors FS 125	
2-16	Communication of critical concerns		Corporate Governance Statement CG 104-108	
2-19	Remuneration policies		Remuneration statement CG 111-113	
2-22	Statement on sustainable development strategy		Review by the Board of Directors FS 124-127	
2-25	Processes to remediate negative impacts		Human rights SR 57, Ethics and compliance SR 74	
2-26	Mechanisms for seeking advice and raising concerns		Human rights SR 57, Ethics and compliance SR 74	
2-27	Compliance with laws and regulations		Human rights SR 57, Ethics and compliance SR 74, Review by the Board of Directors FS 127	x
2-28	Membership associations		Stakeholder engagement SR 70-71	
2-29	Approach to stakeholder engagement		Stakeholder engagement SR 68-73	
2-30	Collective bargaining agreements		In good company SR 67	x

Material topics

GRI 3: Material topics

3-1	Process to determine material topics		Sustainability at Outokumpu SR 29-33	
3-2	List of material topics		Sustainability at Outokumpu SR 29-33	
GRI 201: Economic performance				
201-1	Direct economic value generated and distributed		Key figures AR 5, Value creation AR 11	x
201-2	Financial implications and other risks and opportunities due to climate change		Climate change SR 36-41, Review by the Board of Directors FS 124-128, Risks and opportunities AR 26	x
GRI 203: Indirect economic impacts				
203-2	Significant indirect economic impacts		Stakeholder engagement SR 68, Value creation AR 11, Sustainability data tool (website)	x
GRI 204: Procurement practices				
204-1	Proportion of spending on local suppliers		Sustainable supply chain SR 53	x
GRI 205: Anti-corruption				
205-2	Communication and training about anti-corruption policies and procedures		Ethics and compliance SR 74	x
GRI 206: Anti-competitive behavior				
206-1	Legal actions for anti-competitive behavior, anti-trust, and monopoly practices		Ethics and compliance SR 74, Review by the Board of Directors FS 127	x
GRI 207: Tax				
207-2	Tax governance, control, and risk management		Corporate Governance Statement CG 96	
207-4	Country-by-country reporting		Sustainability data tool (website)	
GRI 301: Materials				
301-1	Materials used by weight or volume		Sustainability data tool (website)	x
301-2	Recycled input materials used		Circularity SR 45-47, Sustainability data tool (website)	
301-3	Reclaimed products and their packaging materials		Stakeholder engagement SR 68	
GRI 302: Energy				
302-1	Energy consumption within the organization		Energy efficiency in focus SR 43-44, Sustainability data tool (website)	x
302-3	Energy intensity		Energy efficiency in focus SR 43-44, Sustainability data tool (website)	x
302-4	Reduction of energy consumption		Energy efficiency in focus SR 43-44, Sustainability data tool (website)	
GRI 303: Water and effluents				
303-1	Interactions with water as a shared resource		Environmental impacts minimized SR 48-50	x
303-2	Management of water discharge-related impacts		Environmental impacts minimized SR 48-50	x
303-3	Water withdrawal	Information on dissolved solids is not available	Environmental impacts minimized SR 48-50	x
303-4	Water discharge	Information on dissolved solids is not available	Environmental impacts minimized SR 48-50	x
303-5	Water consumption		Environmental impacts minimized SR 48-50	
GRI 304: Biodiversity				

304-1	Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas		Environmental impacts minimized SR 48-50	
GRI 305: Emissions				
305-1	Direct (Scope 1) GHG emissions		Climate change SR 36-41	x
305-2	Energy indirect (Scope 2) GHG emissions		Climate change SR 36-41	x
305-3	Other indirect (Scope 33) GHG emissions		Climate change SR 36-41	x
305-4	GHG emissions intensity		Climate change SR 36-41	x
305-7	Nitrogen oxides (NOx), sulfur oxides (SOx), and other significant air emissions		Climate change SR 36-41	x
GRI 306: Waste				
306-1	Waste generation and significant waste related impacts		Circularity SR 45-47	
306-3	Waste generated		Circularity SR 45-47	x
306-4	Waste diverted from disposal		Circularity SR 45-47	x
306-5	Waste directed to disposal		Circularity SR 45-47	x
GRI 308: Supplier environmental assessment				
308-1	New suppliers that were screened using environmental criteria		Sustainable supply chain SR 53-55	
308-2	Negative environmental impacts in the supply chain and actions taken		Sustainable supply chain SR 53-55	
GRI 401: Employment				
401-1	New employee hires and employee turnover		In good company SR 67, Sustainability data tool (website)	x
GRI 403: Occupational health and safety				
403-1	Occupational health and safety managementsystem		Safety SR 59-61	
403-2	Hazard identification, risk assessment, and incident investigation		Safety SR 59-61	
403-4	Worker participation, consultation, and communication on occupational health and safety		Safety SR 59-61	
403-5	Worker training on occupational health and safety		Safety SR 59-61	
403-8	Workers covered by an occupational health and safety management system		Safety SR 59-61	
403-9	Work related injuries	Number of hours worked not reported	Safety SR 59-61	x
GRI 404: Training and education				
404-2	Programs for upgrading employee skills and transition assistance programs		In good company SR 62-67	
404-3	Percentage of employees receiving regular performance and career development reviews		In good company SR 66. Details of gender and employee category not available	
GRI 405: Diversity and equal opportunity				
405-1	Diversity of governance bodies and employees	Information on governance bodies by age groups is not reported. BoD not reported by age group as not reasonable. Other indicators of diversity are not reported.	Review by the Board of Directors FS 127, Sustainability data tool (website)	x

GRI 406: Non-discrimination			
406-1	Incidents of discrimination and corrective actions taken	Corporate Governance statement CG 104-108	
GRI 407: Freedom of association and collective bargaining			
407-1	Operations and suppliers in which the right to freedom of association and collective bargaining may be at risk	Sustainable supply chain SR 53-55, no risk within own operations	
GRI 408: Child labor			
408-1	Operations and suppliers at significant risk of incident of child labour	Sustainable supply chain SR 53-55, no risk within own operations	
GRI 409: Forced or compulsory labor			
409-1	Operations and suppliers at significant risk of forced and compulsory labor	Sustainable supply chain SR 53-55, no risk within own operations	
GRI 411: Rights of indigenous peoples			
411-1	Incidents of violation involving rights of indigenous people	Sustainable supply chain SR 53-55, Human rights SR 57-58	
GRI 413: Local communities			
413-2	Operations with significant actual and potential negative impacts on local communities	Environmental impacts minimized SR 48-50, Stakeholder engagement SR 68-73	x
GRI 414: Supplier social assessment			
414-1	New suppliers that were screened using social criteria	Sustainable supply chain SR 53-55	
414-2	Negative social impacts in the supply chain and actions taken	Sustainable supply chain SR 53-55	
GRI 415: Public policy			
415-1	Political contributions	Outokumpu does not make any donations to political parties or groups, see Code of Conduct https://www.outokumpu.com/en/sustainability/sustainability-downloads , Stakeholder engagement SR 71	x
Company's own indicators			
Resource efficiency	Recycled material content and recycled (steel) content acc. Iso 14021	Circularity SR 45-47	x
Energy	Energy efficiency	Energy efficiency in focus SR 43-44, Sustainability data tool (website), Review by the Board of Directors FS 126	x
Climate change	Science Based Target	Climate change SR 36-41, Sustainability data tool (website)	x
By-products	Slag use rate	Circularity SR 45-47, Sustainability data tool (website), Review by the Board of Directors FS 126	x

ResponsibleSteel content index*

ResponsibleSteel principle	Location in Sustainability Review 2022
1. Corporate Leadership	Sustainability at Outokumpu SR 29-33
2. Social, Environmental and Governance Management Systems	Sustainability at Outokumpu SR 29-33 Sustainability Performance in 2022 SR 34 Sustainable Supply Chain SR 53-55 In a good company SR 62-67 Ethics and compliance in 2022 SR 74
3. Responsible Sourcing of Input Materials	Sustainable Supply Chain SR 53-55
4. Decommissioning and Closure	Not applicable to Outokumpu due to no plans to decommission or close sites
5. Occupational Health and Safety	We operate safely, always SR 59-61
6. Labour Rights	In a good company SR 62-67
7. Human Rights	Sustainable Supply Chain SR 53-55 Impact on human rights SR 57-58
8. Stakeholder Engagement and Communication	Stakeholder engagement SR 68
9. Local Communities	Stakeholder engagement SR 68
10. Climate Change and Greenhouse Gas Emissions	Decarbonizing for the climate SR 36 Energy efficiency in focus SR 43-44
11. Noise, Emissions, Effluents and Waste	Circularity at our heart SR 45-47 Environmental impacts minimized SR 48-50
12. Water Stewardship	Environmental impacts minimized SR 48-50
13. Biodiversity	Environmental impacts minimized SR 48-50

* Outokumpu has not yet been certified by the ResponsibleSteel initiative but this table indicates which part of the Sustainability Review 2022 contains information on sustainability work related to the ResponsibleSteel Principles and related requirements.

Independent practitioner's limited assurance report

To the Management of Outokumpu Oyj

We have been engaged by the Management of Outokumpu Oyj (hereinafter also the "Company") to perform a limited assurance engagement on Selected sustainability information for the reporting period 1 January 2022 to 31 December 2022, disclosed in Outokumpu Oyj's Sustainability Review 2022 and in Outokumpu Oyj's online sustainability tool available on Outokumpu's website.

Selected sustainability information

The selected sustainability information within the scope of assurance covers:

- The economic, social and environmental sustainability indicators as identified in the GRI Content Index.
- EU taxonomy KPIs for climate change mitigation and climate change adaptation as disclosed in Outokumpu Oyj's Sustainability Review 2022.
- All of the indicators in the online sustainability tool available on the Company's website on 2 March 2023. Any changes made to the online tool made after the publishing date are not covered by this assurance report.

Management's responsibility

The Management of Outokumpu Oyj is responsible for preparing the Selected sustainability information in accordance with the Reporting criteria as set out in Outokumpu Oyj's reporting instructions described in Outokumpu Oyj's Sustainability Review 2022, the GRI Standards of the Global Reporting Initiative, Regulation (EU) 2020/852 and Commission Delegated Regulation 2021/2178, as well as own reporting instructions (collectively reporting criteria).

The Management of Outokumpu Oyj is also responsible for such internal control as the management determines is necessary to enable the preparation of the Selected sustainability information that are free from material misstatement, whether due to fraud or error.

Practitioner's independence, other ethical requirements and quality control

We have complied with the independence and other ethical requirements of the International Code of Ethics for Professional Accountants (including International Independence Standards) issued by the International Ethics Standards Board for Accountants (IESBA Code), which is founded on fundamental principles of integrity, objectivity, professional competence and due care, confidentiality and professional behavior.

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

Practitioner's responsibility

Our responsibility is to express a limited assurance conclusion on the Selected sustainability information based on the procedures we have performed and the evidence we have obtained. We conducted our 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" and, in respect of greenhouse gas emissions, International Standard on Assurance Engagements (ISAE) 3410 "Assurance Engagements on Greenhouse Gas

Statements". These Standards require that we plan and perform the engagement to obtain limited assurance about whether the Selected sustainability information is free from material misstatement.

In a limited assurance engagement, the evidence-gathering procedures are more limited than for a reasonable assurance engagement, and therefore less assurance is obtained than in a reasonable assurance engagement. An assurance engagement involves performing procedures to obtain evidence about the amounts and other information in the Selected sustainability information. The procedures selected depend on the practitioner's judgment, including an assessment of the risks of material misstatement of the Selected sustainability information.

Our work consisted of, amongst others, the following procedures:

- Interviewing the senior management of the Company.
- Conducting three site visits; in Finland, Sweden and the United States of America.
- Interviewing employees responsible for collecting and reporting the selected information on sustainability indicators at the Group level.
- Assessing how Group employees apply the reporting instructions and procedures of the Company.
- Testing the accuracy and completeness of the information from original documents and systems on a sample basis.
- Review of the EU Taxonomy related disclosures.
- Testing the consolidation of information and performing recalculations on a sample basis.
- Considering the disclosure and presentation of the Selected sustainability information.

Limited assurance conclusion

Based on the procedures we have performed and the evidence we have obtained, nothing has come to our attention that causes us to believe that Outokumpu Oyj's Selected sustainability information for the reporting period ended 31 December 2022 are not properly prepared, in all material respects, in accordance with the Reporting criteria.

When reading our limited assurance report, the inherent limitations to the accuracy and completeness of sustainability information should be taken into consideration.

Our assurance report has been prepared in accordance with the terms of our engagement. We do not accept, or assume responsibility to anyone else, except to Outokumpu Oyj for our work, for this report, or for the conclusions that we have reached.

Helsinki 28 February 2023

PricewaterhouseCoopers Oy

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