Annual report 2021

Working towards a world that lasts forever

outokumpu

Contents

Annual review

Our Annual report combines Outokumpu's sustainability and financial reporting. Sustainability review has been assured and Financial statements have been audited. Our official Financial statements published according to the ESEF regulation are available at www.outokumpu.com/reports.

In working towards a world that lasts forever, we fight against corrosion every step of the way. Lena Wegrelius heads Outokumpu's corrosion department, employing a dozen specialists.

Sustainability review

Download the Sustainability review as PDF

Governance

Download the Corporate Governance as PDF

Financial year

Download the Review by the Board of Directors and Financial statements as PDF

Annual review

We are the global leader in stainless steel. We are proud to produce the most sustainable stainless steel in the world – we work for the good of the planet and help our customers to reduce their carbon footprint.

We are Outokumpu

What we do, the product that ships out of our facilities, is stainless steel. Our customers use it to construct buildings, plants and bridges, manufacture cars, trucks and trains, produce kitchen sinks and appliances.

Our stainless steel is produced by our experts at our mills in Finland, Germany, Mexico, Sweden, the UK, and the US. Our engineers research and develop it further at our research centers and mills, and our dedicated salespeople and technical experts help and advice our customers in choosing, using, and processing stainless steel. Outokumpu's headquarters is in Helsinki, Finland and our shares are listed on Nasdaq Helsinki.

Our vision is to be the customer's first choice in sustainable stainless steel. Today, our stainless steel contains 90% of recycled material, the most in the entire industry. We also have the lowest carbon footprint, covering all the emissions in our supply chain. By using our stainless steel, our customers save our planet from 10,000,000 tonnes of carbon dioxide – every year. And we do not stop but strive to cut our CO_2 emissions by further 30% by 2030. Our ultimate goal is carbon neutrality by 2050.

This is a company of great people, and we can trust our future to be in good hands because those hands are our own. ■

Video: The world needs things that last – watch designer Stefan Lindfors' views on sustainability

[1] Personnel as full-time equivalent
[2] Compared to the baseline of 2014–2016

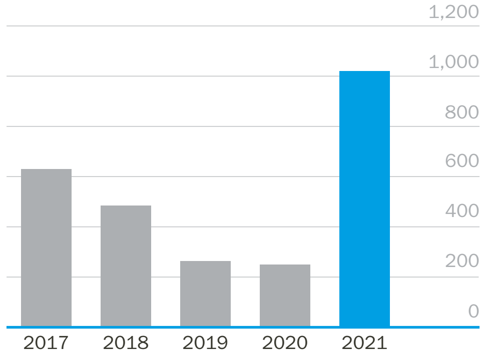
Year 2021 in figures

The year 2021 was a great success for Outokumpu. During the year, our focus has been on our strategic aim of de-risking. We reduced our net debt significantly and delivered our best annual financial results, with all business areas providing solid results. Sustainability was another key focus: we had the strongest safety performance on record and kept our recycled material content on a very high level.

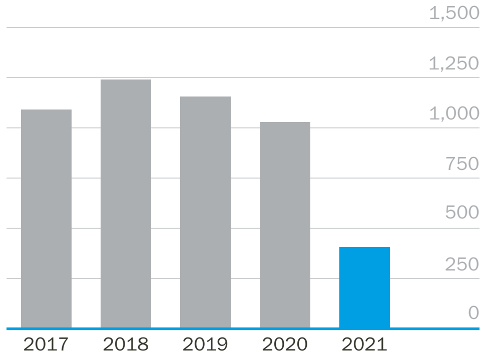
	2021	2020	2019	2018	2017
Financial key figures					
Net sales, € million	**7,709**	5,639	6,403	6,872	6,356
Stainless steel deliveries, 1,000 tonnes	**2,395**	2,121	2,196	2,428	2,448
Adjusted EBITDA, € million	**1,021**	250	263	485	631
Net result for the period, € million	**553**	–116	–75	130	392
Operating cash flow	**597**	322	371	214	328
Net debt, € million	**408**	1,028	1,155	1,241	1,091
Debt-to-equity ratio at the year-end, %	**13.1**	43.6	45.1	45.1	40.1
Environmental key figures					
Recycled content, %	**90.1**	92.5	85.0	84.3	84.1
CO_2 emission intensity, tonnes of CO_2 eq. per tonne steel	**1.60**	1.55	1.61	1.72	1.84
Energy intensity, use in GJ per tonne crude steel	**9.9**	11.0	10.9	10.1	9.3
Use rate of slag, %	**78.6**	77.1	90.8	89.9	91.1
Total landfill waste intensity, tonnes per tonne steel	**0.517**	0.590	0.500	0.472	0.391
Social key figures					
Total recordable injury frequency rate [1]	**2.0**	2.4	3.2	4.1	4.4
Lost-time injuries rate [2]	**1.3**	1.4	1.4	1.7	1.8
Personnel, full-time equivalent	**9,096**	9,602	10,078	10,118	9,748
Personnel	**9,395**	9,915	10,390	10,449	10,141

[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.

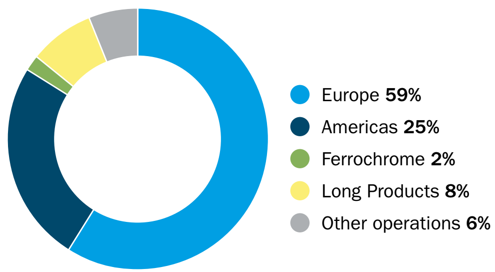
Adjusted EBITDA, € million



Net debt, € million



Sales by business area, € 7,709 million



CEO's review

The year 2021 was a great success for Outokumpu. We made the best result in recent years, reduced our net debt significantly and made even more stringent commitments in sustainability.

In an exceptionally strong market environment, we delivered our best annual financial results in recent history. I am very pleased that Outokumpu's adjusted EBITDA exceeded the remarkable EUR 1.0 billion milestone and amounted to EUR 1,021 million, while net debt decreased to EUR 408 million. Our exceptionally high earnings per share was also a highlight of the past year.

I am proud to say that in 2021 we had the strongest safety performance on record. Our annual total recordable injury frequency rate improved to 2.0. I want to thank all our employees for their continued efforts. Safety is always our first priority, as it has been during these pandemic times.

2021 marked the first year of executing our new strategy. We have executed it determinedly, yet in the strong market, its progress has exceeded our estimations. During the year, our focus has been on our strategic aim of de-risking the company and strengthening the balance sheet by reducing net debt. As a result of the various actions taken throughout the year, we have reduced our net debt by more than EUR 600 million and pushed our net debt to EBITDA ratio to 0.4. Also, credit rating agency Moody's recognized our good development and upgraded Outokumpu's credit rating twice last year. De-risking continues through the first phase of the strategy by the end of 2022: we will continue to reduce the net debt to strengthen the company for the future.

We nearly reached our original EBITDA run-rate improvement target during 2021, as we have now achieved a cumulative impact of EUR 198 million. Therefore, we have increased our

“We have all the confidence for 2022 to reach our targets.”

EBITDA run-rate improvement target to EUR 250 million.

All business areas provided solid results in 2021. Our Europe business area reached an adjusted EBITDA of EUR 485 million, and its deliveries increased by 7% compared to the previous year. In the exceptionally strong market, the Americas business area's adjusted EBITDA rose to its highest level ever, EUR 297 million and deliveries increased by 26%. Also, the Ferrochrome business area increased its adjusted EBITDA to EUR 246 million.

Sustainability has been our key focus area in 2021. In sustainability, we kept our recycled content at a high level at 90% and improved our energy efficiency. We have the smallest carbon footprint in the industry, and customers save the world some 10,000,000 tonnes of CO_2 emissions by using our stainless steel – every year. Outokumpu signed a new deal on three cargo vessels with Langh Ship to reduce CO_2 emissions in transports. Furthermore, we signed a deal with Gasum to increase the share of wind power in our electricity procurement and to meet our emission reduction targets.

Outokumpu's updated and more ambitious climate targets have been approved by the Science Based Targets initiative (SBTi). Our targets are now aligned with keeping global warming below 1.5 degrees. Outokumpu is currently the only stainless steel producer to have its ambitious climate targets approved by the SBTi. We are firmly progressing on our path towards our vision of being the customer's first choice in sustainable stainless steel.

We have also strengthened the monitoring of our supply chain's sustainability. We are committed to the United Nations' Guiding Principles on Business and Human Rights. In particular, we have invested time and resources to better control our supply chain, especially in the high-risk countries.

As the producer of sustainable stainless steel whose carbon footprint is less than 30% of the global industry average, and in terms of global overcapacity in stainless steel especially in Asia, it is important that the global playing field is as level as possible, and that competition is fair. In terms of trade regulation, we were pleased to see that during the year the EU extended safeguard measures for another three years until June 2024. In addition, the EU imposed provisional anti-dumping duties on cold-rolled stainless steel from Indonesia and India. These regulatory measures are important steps to ensure a level playing field in Europe for sustainable stainless steel.

In July, the European Commission provided a proposal for the Carbon Border Adjustment Mechanism (CBAM). The proposal currently includes only scope 1 or direct emissions and, therefore, it does not create sufficient protection for carbon leakage. For stainless steel, it would be crucial that CBAM is applied to the whole carbon footprint – all scopes, that is, scope 1, scope 2 and scope 3.

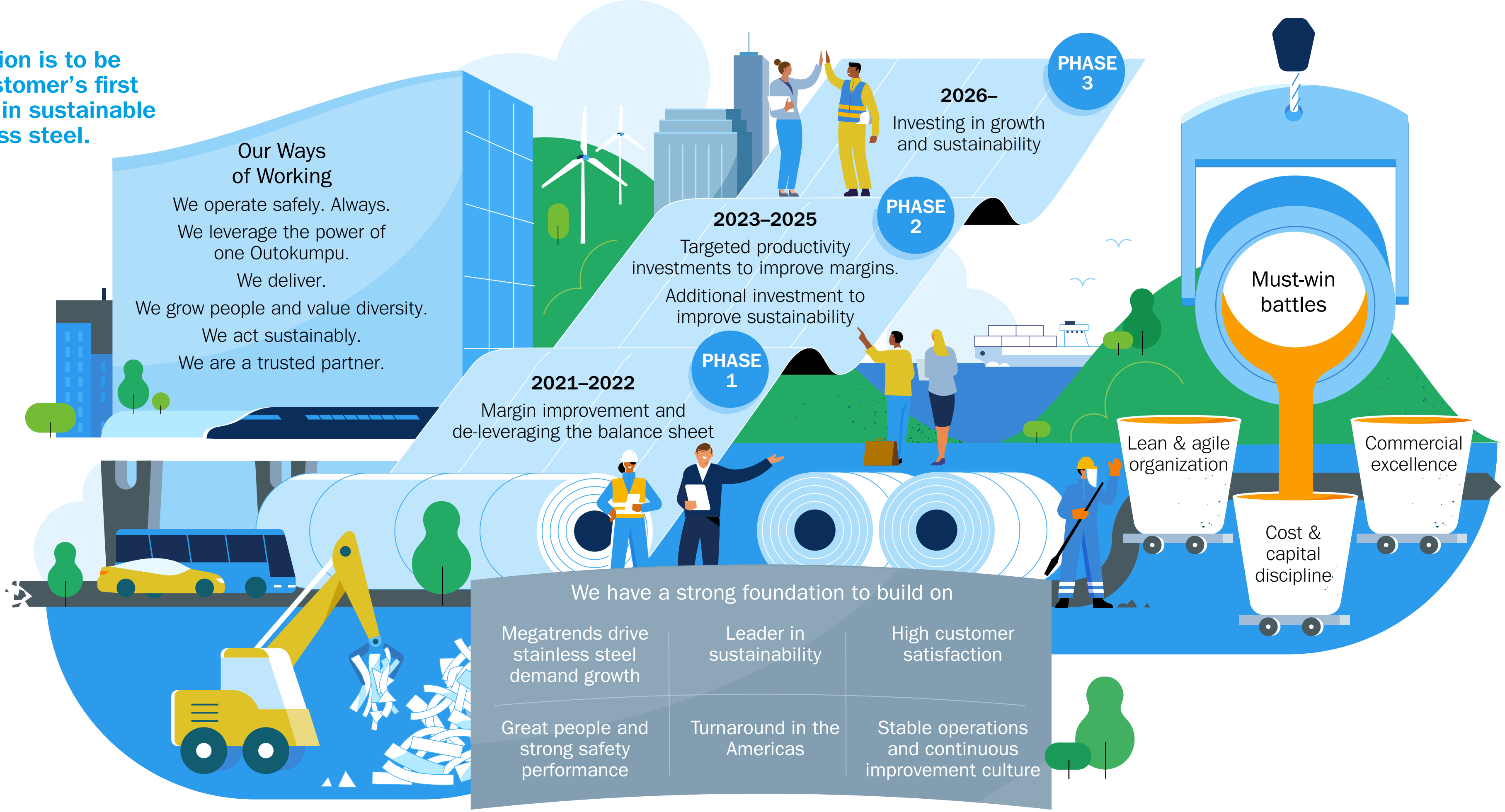
Throughout the year, our mills have been running at full capacity, we increased our annual deliveries by 13% from the previous year, and the strong market environment brought along logistical challenges. Our team members have done a truly excellent job, and I want to thank them for their commitment this year. I also want to thank our customers for all the great cooperation and shareholders for their continued trust in Outokumpu. We have all the confidence for 2022 to reach our targets.

Heikki Malinen
President and CEO

Our progress in strategy

We took determined actions throughout the year 2021 to execute our strategy and delivered great achievements. We benefited from the favorable market environment and exceeded the financial targets we had set for ourselves for the year. Going forward, this determination and strong focus will continue in 2022 to ensure we will reach our targets set by the year end.

Our vision is to be the customer's first choice in sustainable stainless steel.



We launched our new three-phase strategy at the end of 2020. During the first phase, which is set to complete by the end of 2022, we wanted to strengthen our balance sheet and de-risk the company before entering the next phases of the strategy. The strategy is built on our strong foundation, starting with megatrends driving stainless steel demand, our people as our asset, and our stable operations as well as continuous improvement culture.

Three clear improvement areas in the first phase of the strategy

When building the strategy, Outokumpu found three focus areas in which to improve performance in the first phase of the strategy: lean and agile organization, cost and capital discipline, and commercial excellence.

In the lean and agile organization stream, the target has been to create cost savings by restructuring and reducing total employee headcount by approximately 1,000. The total targeted employee reductions of 1,000 was to be completed in full mostly by the end of 2021 and now the company has moved towards agility. Outokumpu's aim is a full-time equivalent number of personnel below 9,000 during 2022.

In the cost and capital discipline stream, the focus has been on increasing our raw material efficiency, maintenance optimization, and strict asset management as well as keeping our annual capital expenditure within EUR 180 million.

In the commercial excellence stream, our target has been to improve product mix in all business areas, grow in the selected segments and leverage the leadership that we have in specialty grades.

Excellent progress in reaching our financial targets

With diligent execution in the three focus areas, we aim to reach the financial targets we set for the first phase of the strategy, both by the end of 2022.

The first target was to improve the EBITDA run-rate by EUR 200 million. During 2021, we were able to improve our EBITDA run-rate more than we had estimated one year ago and reached an improvement of EUR 198 million, which is 79% of our total target: as we have recognized new improvement areas, we are now aiming at EUR 250 million EBITDA run-rate improvement.

The second financial target we set for ourselves was to push the leverage ratio, or net debt to EBITDA ratio, to below 3, meaning that our net debt could only be three times as much as our EBITDA. We were able to reach this target already during the first half of 2021 and pushed this ratio further down to 0.4 by the end of the year. The directed share issue which we completed in May contributed positively as with the proceeds we paid some of the more expensive loans. We also redeemed our senior secured fixed rate notes due in 2024 already at the end of 2021. Although our leverage ratio target has been reached ahead of time, we will continue to deleverage throughout the first phase of the strategy.

Much of the EBITDA run-rate improvement in 2021 came from delayering the organization. We have reduced the organizational levels at Outokumpu. At the same time, we had to make a tough decision to reduce the number of employees by approximately 1,000 people to decrease our cost base and increase our competitiveness. These measures have now been nearly completed. At the end of the year, we had 9,096 employees as full-time equivalent on our payroll.

Our continuous improvement culture is demonstrated in the many good examples and success stories from cost and capital discipline and commercial excellence. For instance, in Europe, we signed a deal with Langh Ship for new cargo vessels traveling between Finland and Terneuzen, being able to both reduce our shipping costs and CO_2 emissions at the same time. Across Outokumpu, a melt shop benchmarking activity resulted in an operating model allowing the company to optimize the use of raw material alloys in the melting process. In the Tornio melt shop, our operators solved an over-alloying issue, finding saving potential in alloying elements.

In Mexico, we found, for example, new applications and customers for our stainless steel grades in the solar power industry which was looking for a local, reliable source. We capitalized on our technical expertise, for instance helping a customer to reduce their down time by supplying coils that had already been welded together. Going forward, most of the impact on our financial targets will come from the measures within cost and capital discipline and commercial excellence.

We were able to improve our EBITDA run-rate more than estimated and reached our leverage ratio target ahead of time.

Next phases

We are now strengthening the foundations of the company, and once we have deleveraged our balance sheet further, we will move onto the next phases of strategy. Deleveraging continues by the end of 2022 and in 2023–2025, we will strengthen the core of our business: making targeted investments in productivity so that we can further improve our profitability. At the same time, we will make additional investments to improve our sustainability performance. Beyond 2025, our strategy is to invest in growth and sustainability, which will bring us towards our vision to be the customer's first choice in sustainable stainless steel. ■

Highlights

Managing the COVID-19 pandemic

Safety is a key priority at Outokumpu and protecting the health and safety of the employees in the global COVID-19 pandemic continued in 2021.

The effects of the pandemic were twofold. Outokumpu had various safety measures in its sites and offices, while the rebound from the 2020 slowdown showed as increased deliveries and improved performance. The financial impacts of COVID-19 related mainly to the market rebound, and its impact on prices, order books and utilization rates were stronger than estimated. On the other hand, various restrictions have been in place, as the company has continued to do its utmost to safeguard the employees – working remotely, following social distancing as well as limiting traveling, face-to-face meetings, and visitor access to only the absolutely business critical instances.

Towards the end of 2021, the COVID-19 pandemic moved on to a point where the crisis was no longer steered centrally at the Group level. Instead, the situation is now managed at the local level within the company guidelines and local country rules. Nevertheless, the COVID-19 pandemic still remains a risk going forward.

How do our people feel?

2021 we once again asked our personnel for their opinions in the Organizational Health Index (OHI) survey. After two exceptional years, our overall result in this global employee survey remained on a high level at 68, although it was slightly weaker than in 2019.

After the tough decisions made when launching our new strategy to delayer the organization, we are pleased to see that our company and employees have managed through these recent exceptional times this well. Since we started the survey, we can see remarkable improvement, as our score started at 50 in 2016.

As the situation varies from country to country, development actions will also vary by location. Special care will be given to the sites where the figures are lowest.

Read more on our people

A good year led to increased targets

Outokumpu was able to improve its adjusted EBITDA more than expected during 2021. We also reached our debt reduction target in just one year, pushing our net debt to adjusted EBITDA ratio to 0.4.

This excellent progress led to us raising the bar: we increased of our financial targets from the original run-rate improvement of EUR 200 million to EUR 250 million by the end of 2022. Reducing net debt will continue during the first phase of our strategy.

Read more on our strategy progress

We work to keep the climate change within 1.5 degrees

We updated our sustainability strategy during the year and set even more stringent climate targets than before. We are the only steel company that has a climate target in line with keeping global temperature warming within 1.5 degrees, approved by the Science Based Targets initiative.

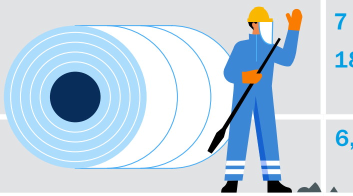
Outokumpu was previously committed to the 2.0 degrees level and we are on track to reach this target set for 2023, as we have cut our CO_2 emissions by 14.3% in the past five years. Going forward, we intend to cut our CO_2 emissions by further 30% by 2030 compared to the baseline of 2020.

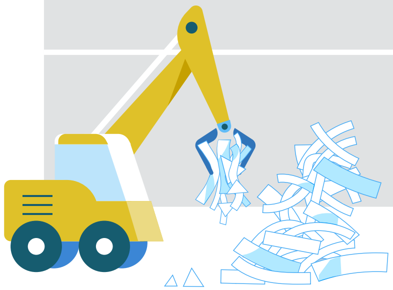
Read more of our climate targets

Value creation

Our operations impact society and environment in many ways. We contribute to several United Nations' sustainable development goals either through the way we operate or through our products.

Inputs	Outokumpu	Outputs and impacts	Sustainable development goals we impact
649,681 tonnes alloys 519,186 tonnes slag formers 274,286 tonnes coke	7,709 million euros of sales	2,395,000 tonnes of stainless steel delivered 515,000 tonnes of ferrochrome produced 1,574,244 tonnes of slag	Responsible production Decent work and economic growth
2,561,238 tonnes of recycled steel	90.1% of recycled material content in our products 111,242 tonnes of recycled metals	10 million tonnes of estimated avoided CO_2 emissions by using our stainless steel 2 million tonnes of estimated avoided CO_2 emissions by using our ferrochrome	Climate action Responsible production
4,794 million euros of materials and supplies 879 million euros of services	120 million euros in environmental costs and investments	6,084 million euros of operating costs 7 million euros paid taxes 180,000 euros of sponsoring	Climate action Responsible production Partnership for goals Decent work and economic growth
180 raw material suppliers	9,096 employees (full-time equivalent)	6,700 other suppliers (50% local)	Partnership for goals Decent work and economic growth
4,641 GWh of electricity used (80% low carbon, of which 15% renewable) 700 GWh of process gas 2,804 GWh of primary fuel used	2.6% improvement in energy efficiency 123,027 tonnes of recycled and reused waste 99% of dust captured	1,256,219 tonnes of direct CO_2 emissions 603,554 tonnes of indirect CO_2 emissions of electricity 3,397,148 tonnes of other indirect, mainly upstream CO_2 emissions 465,000 tonnes of waste landfilled 230 tonnes of dust	Affordable and clean energy Responsible production
	Total recordable injury frequency rate 2.0 98,411 training hours and 12 million euros of training costs Development discussion % of 98 OHI participation rate 86% and overall score 68	711 million euros of total employee benefit expenses Annual average salary 59,448 euros	Decent work and economic growth





Stainless steel market

The long-term outlook for stainless steel consumption remains positive due to the increasing need for long-lasting and sustainable solutions to the world's most critical challenges. Outokumpu is the undisputed market leader in Europe and strong number two in the Americas.

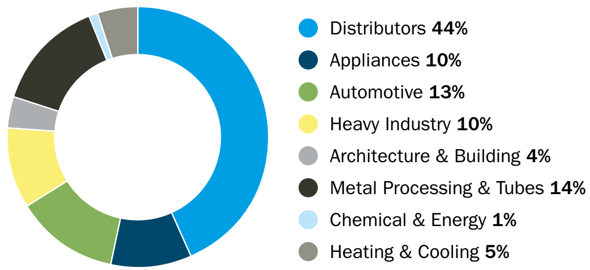
Oculus, the new WTC Transportation Hub in New York City, suggests a bird taking flight. This structure is created by Outokumpu's lean duplex stainless steel.

Megatrends drive the demand for sustainable solutions

Global megatrends – such as urbanization, mobility, economic and population growth, and climate change – are the main growth drivers for the stainless steel industry. The need to develop sustainable solutions that are durable and can be reused at the end of their lifecycle is apparent, as the megatrends drive the demand for economic, social, and environmental sustainability.

Our commitment and contribution to sustainability are embedded throughout our value chain from procurement and production to customer deliveries. We have the lowest carbon footprint in our industry, and we are the leader in the circular economy as the recycled content in our stainless steel is the highest in the industry – at over 90%. Mitigating climate change by reducing our carbon footprint is a clear focus area, and we aim to reduce our environmental impact through, for example, energy efficient production and by using low-carbon electricity. We are continuously

Industry segments in Europe 2021



Source: Stainless steel flat products by volume of the Europe business area, January 2022.

looking for ways to improve the sustainability of our products and processes even further.

Stainless steel is sold either directly to end users or to stainless steel distributors, tube makers, and processors, such as steel service centers, who resell the products to end users. In 2021, 56% of our business area Europe's stainless steel flat product quantities was sold directly to end-user customers. The remaining approximately 44% were delivered to distributors that stock and process stainless steel to serve end users. In the Americas business area, distributors have a higher share of two-thirds of the total quantities.

Global market with a few big players

Outokumpu operates in the global stainless steel market. Our world-class assets, comprehensive product portfolio and proven expertise form a sound foundation for our strategy execution and future success. In 2021, the market for cold-rolled flat products totaled approximately 30.3 million tonnes. (Source: CRU) Outokumpu's global market share was approximately 5.5%. (Source: CRU and Outokumpu estimates) Outokumpu is the market leader in Europe, given our cold-rolled market share of approximately 29%. (Source: EUROFER) In the USMCA region, our market share stands at 24%, making Outokumpu the clear number two in the Americas. (Sources: American Iron & Steel Institute, StatsCan, Canacero) Focusing on the US market, Outokumpu's share amounts to around 22%. (Sources: American Iron & Steel Institute)

The stainless steel industry has been burdened by overcapacity in recent years, especially in Asia. In addition to Outokumpu, the largest stainless steel producers worldwide include Asian companies Tsingshan, Delong, Baosteel*, TISCO* and POSCO as well as European-based Acerinox and Aperam. The global stainless steel production capacity of slabs increased in 2021 by roughly 3% to 59.6 million tonnes. To adjust to changing trade restrictions within Asia and Europe, both Tsingshan and Delong have shown flexibility in switching from slab to billet production and vice versa. The global utilization rate was assessed to have increased

Major stainless steel producers

Million tonnes	2022	2021
Tsingshan	**13.8**	9.8
Delong	**5.9**	2.9
Baosteel*	**5.2**	2.0
TISCO*	**4.5**	4.5
POSCO	**3.3**	3.3
Acerinox	**3.3**	3.3
Outokumpu	**3.2**	3.2
Guanxi Chengde	**3.0**	3.0
Aperam	**3.0**	3.0

Source: Stainless steel production capacity of slabs, CRU November 2021.

* Subsidiaries of Baowu Steel.

Business area	Europe	Americas	Ferrochrome	Long Products
Market share	29% [1)] (EU30)	24% [2)] (USMCA)	3% [3)]	
Production facilities	Tornio, Finland Avesta, Degerfors and Nyby, Sweden Terneuzen, the Netherlands Dahlerbrück, Dillenburg and Krefeld, Germany	Calvert, Alabama, the US San Luis Potosí, Mexico	Kemi and Tornio, Finland	Sheffield, the UK Degerfors and Fagersta, Sweden Richburg, South Carolina, the US
Largest customer segments	Distributors Automotive Appliances Heavy industries	Distributors Appliances Automotive Pipes and tubes	Stainless steel producers	Distributors Metal processors Heavy industries Tubes
Main competitors	Aperam, Acerinox, Acciai Speciali Terni	NAS, Cleveland Cliffs (AK), ATI	Glencore, Samancor, ERG	NAS, Cogne, Valbruna

1) EUROFER.
2) American Iron & Steel Institute, StatsCan, Canacero.
3) ICDA.

to around 80% in 2021, up from 72% in 2020 induced by the recovery from the COVID-19 lows. As the production of stainless steel is capital intensive, producers generally aim for continuously high capacity utilization in order to maintain and improve profitability. (Source: CRU.) Several Asian producers also manufacture carbon steel, which can be a substitute product for stainless in some cases, while European stainless steel manufacturers focus on the production of sustainable material. (Source: CRU)

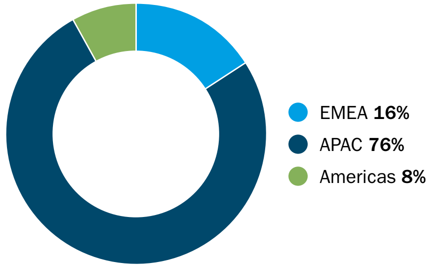
Strong market environment in 2021

Global consumption of stainless steel has recovered strongly throughout 2021, supported by successful vaccination programs and supportive fiscal and monetary policy. Due to robust private consumption and high demand for durable goods, segments like Appliances and Automotive have benefited from high underlying demand. Further end-use segments like Construction & Architecture or Heavy Industry, which suffered from a sharp decline in demand during COVID-19, have performed well this year. The production of stainless steel producers has increased year-on-year to meet the high demand, but extremely strong order books have anyhow still caused lead times to increase to multi-year highs. Moreover, reported distributor inventories were also below historical averages. Long lead times from Asian producers, logistical bottlenecks and high freight costs have added to the constrained supply situation and caused customers to prefer regionalized sourcing.

Especially in Europe, imports from third countries were limited particularly in the first half of 2021 by the above-mentioned external factors, like surging freight costs, container shortages and high domestic demand in third countries. However, in 2021, there were still no signs of easing market distortions in some stainless steel producing countries outside the EU. As a result, and to mitigate from these distortions like dumping, state subsidies or weaker sustainability performance, the EU has taken some important steps in the process of creating a fair competitive environment between the European and third country producers.

First, in May, the EU found Indonesia and India had been selling cold-rolled stainless steel products to the EU market at dumped prices and consequently imposed provisional anti-dumping duties on these countries, which were made definitive for five years later in November. The decision by the EU in June to renew the steel safeguard measures for another three years was also very well justified, as the abundant overcapacities in Asia and the US Section 232 tariffs remain unchanged after three years when the safeguards were originally imposed. Also, in September the EU published the decision to renew the current anti-dumping duties on cold rolled from China and Taiwan at the existing levels for another five years, until September 2026. Outokumpu welcomes these actions as steps in the right direction but still insists for more assertive application of the EU's trade defense measures at their full potential to level the playing field in order to achieve a fair competitive environment between the European and third country producers.

Regional distribution of stainless steel apparent consumption in 2021



Source: CRU, November 2021

In February 2021, the EU also initiated an investigation into the alleged subsidies by the governments of Indonesia and India, when exporting stainless steel cold-rolled products to the EU market. In this proceeding the EU will have a chance to impose definitive anti-subsidy duties on these countries by March 2022. Among the ongoing trade proceedings, Outokumpu is also following closely the WTO dispute settlement between the EU and Indonesia regarding various measures by Indonesia concerning nickel, in which the final report is expected in the fourth quarter of 2022.

On top of trade-related developments, the European Commission provided a proposal for the Carbon Border Adjustment Mechanism (CBAM) in July. The proposal currently includes only scope 1 emissions and, therefore, it does not create sufficient protection for carbon leakage. For stainless steel, it would be crucial that CBAM is applied to the whole carbon footprint (scope 1, scope 2 and scope 3).

The secret to Tokyo's low water leakage rate

Water losses are a big issue faced by utilities across the globe. One such utility, the Tokyo Water Board was losing about 15–20% of its potable water to leakage. However, the city managed to cut leakage dramatically after it developed a long-term strategy that included using stainless steel service pipes.

By 2013 the utility had slashed leakage from 15.4% to 2.2%, despite a larger population. The new pipes also helped reduce the maintenance budget substantially.

Peder Claesson, Head of Project sales, says: "The water board found stainless steel to be the most cost-effective option for over 100 years, despite a higher initial investment cost. Its lifecycle cost is only 25% of the lifetime cost of alternative materials, considering the latter's need for regular maintenance and replacement about every 20 years. And while the projected life is 100 years, stainless steel pipes may last much longer."

Global apparent consumption for stainless steel flat products amounted to 39.3 million tonnes in 2021, an increase of 10.1% from 35.7 million tonnes in 2020. The demand in Americas and APAC increased by 25.5% and 10.8%, respectively, while EMEA only increased by 8.5%. (Source: CRU)

In 2021, global stainless steel production amounted to 58.9 million tonnes and increased by around 14% from the previous year 2020, which was heavily hit by the COVID-19 pandemic. The drop in output was pronounced in most regions, while output only grew in Indonesia and remained on the same levels compared to 2019 in China. On the one hand, this demonstrates the continuation of the rapid capacity build-up in Indonesia and on the other, China's prompt recovery from the crisis caused by the COVID-19 pandemic. (Source: CRU)

Market recovery throughout 2021 and long-term market outlook remains positive

Following the sharp recovery in 2021, the long-term outlook for stainless steel demand remains positive, but is expected to normalize in the upcoming years. Global megatrends, such as urbanization, climate change, and increased mobility, combined with the growing global demand for energy, food, and water, are expected to support the future growth of stainless steel demand. In 2021, global steel production amounted to 1,912 million tonnes of which approximately 3% was stainless steel (Source: CRU, Worldsteel).

The demand for stainless steel products is impacted by global, regional, and national economic conditions, levels of industrial investment activity and industrial production. In 2021, the strong COVID-19 rebound and augmented raw material prices have led to increased stainless steel spot prices.

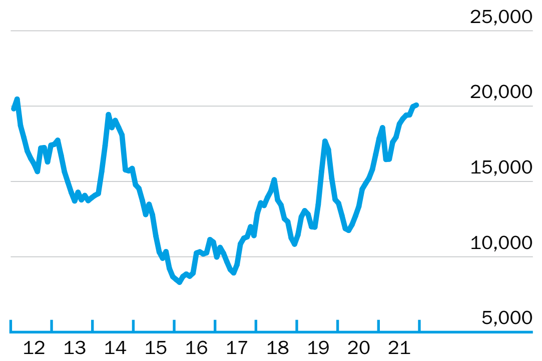
Stainless steel and raw material prices in 2021

Stainless steel price*, EUR/t

Source: CRU January 2022

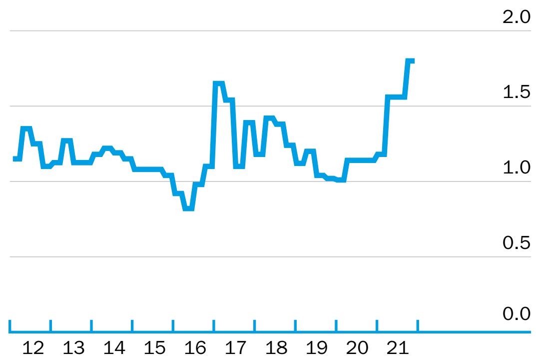
* Stainless steel reference spot price for cold-rolled 304 2mm sheet in Europe.

Nickel price, USD/t



Source: LME settlement, monthly average prices.

Ferrochrome price, USD/lb



Source: LME settlement, monthly average prices.

Sustainability review

Outokumpu is a company of good people, working towards a world that last forever. Our people and their expertise is what separates us from other companies. Also, our stainless steel has the lowest carbon footprint on the market. Last year, we processed 2.6 million tonnes of recycled steel and 111,000 tonnes of other recycled metals into stainless steel, and our customers saved the world from some 10 million tonnes of carbon dioxide emissions by using our stainless steel.

Download the Sustainability review as PDF

outokumpu

Sustainability at Outokumpu

Sustainability is at the heart of our business and integrated in our strategy.

Stainless steel is used in many sustainable applications, like solar power production, because of its superb properties e.g. in durability and recyclability.

Outokumpu's sustainable stainless steel contributes to a world that lasts forever. Sustainable solutions that last forever are needed to solve the challenges created by population growth, urbanization and climate change.

Our product is at the very core of our sustainability approach. Stainless steel is a superb material for sustainable solutions as it is 100% recyclable, efficient and long-lasting. The cornerstone of our business is enabling growth and innovation through sustainable stainless steel solutions, and 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. As the industry leader in sustainability, we provide a full picture of the total carbon footprint of our products taking into account all indirect emissions including raw materials. We also lead the industry in terms 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. Our carbon footprint is the lowest in the industry when all scopes of emissions are considered.

Updated sustainability strategy

During 2021, we took steps to further strengthen our sustainability agenda, and our sustainability strategy was updated to reflect the growing importance of sustainability and the possibilities it offers to our business. Our sustainability strategy is based on three factors: environmental, social and economic, which all need to be in balance.

As 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 Targets initiative's (SBTi) 1.5 °C climate ambition. The commitment translates into greenhouse gas emission reduction of 42% in per tonne stainless steel by 2030 from a 2016 base year covering direct and indirect emissions as well as those of our supply chain. Our long-term target is to achieve carbon neutrality in our own operations by 2050.

Our reporting is based on material topics

Outokumpu conducts regularly 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.

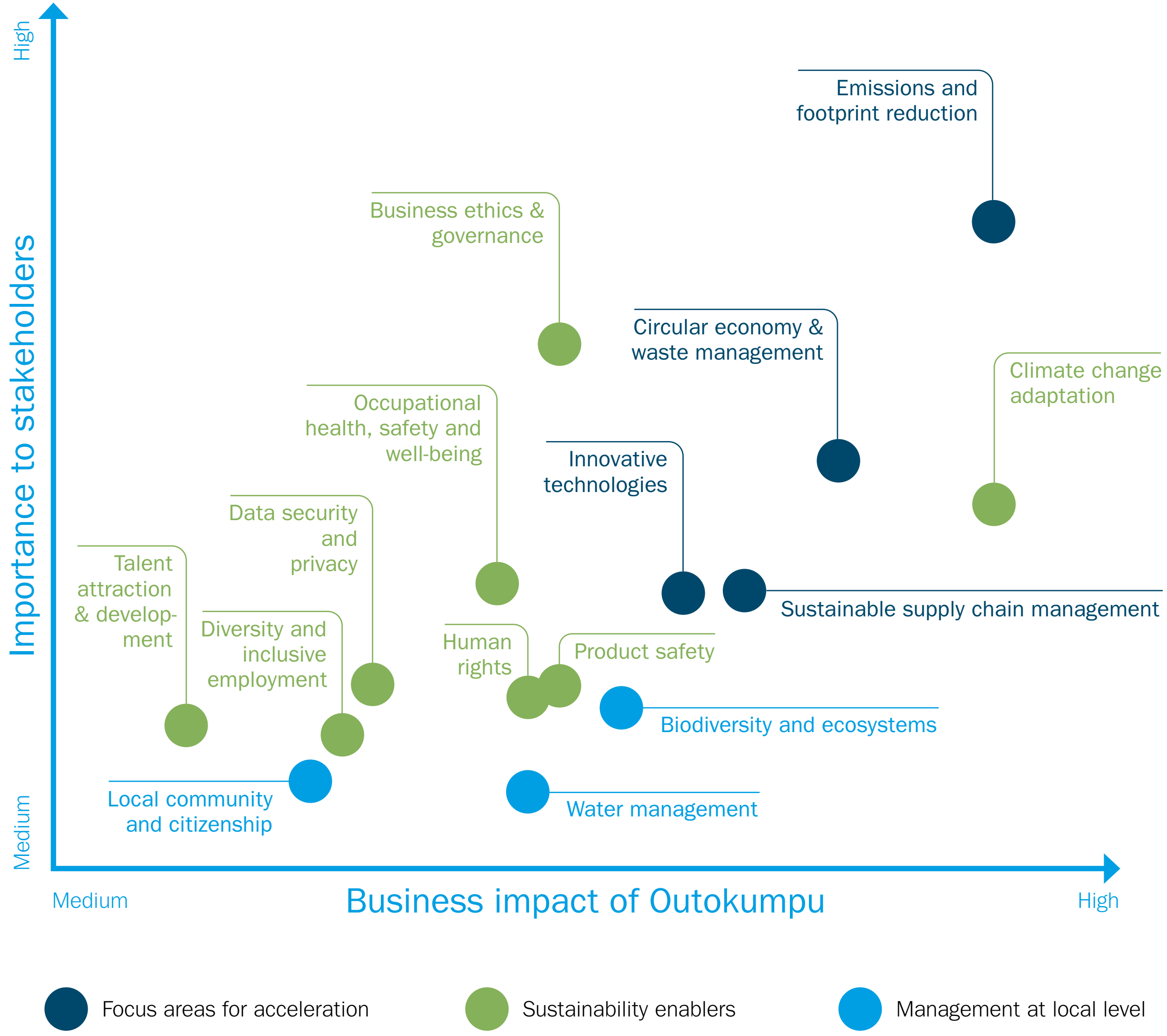
The analysis is applying double materiality, meaning both the impact of and on Outokumpu's business were assessed. As a basis for the materiality analysis, an external advisor conducted an extensive data study of the emerging trends in the steel industry and compared these trends with the material topics 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 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 lower level of potential for differentiation. Topics defined for management at local level have value creation potential from execution on 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



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, Corporate Responsibility Policy and the Policy on Environment, Health, Safety and Quality (EHSQ). We expect our business partners and suppliers to follow similar standards. All of our policies are available at outokumpu.com.

All of Outokumpu's 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, UN Global Compact and ILO Declaration on Fundamental Principles and Rights at Work. In 2021, Outokumpu began to implement 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 Vice President – Sustainability who reports to Chief Technology Officer & Group Sustainability. 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 are conducted in a responsible manner and that monitoring, data collection and reporting are duly carried out.

In 2021, Outokumpu established a new ESG Advisory Council to support continuous improvement in sustainability. The council consist of four external advisors:

- Olli Dahl, PhD (Technology), Professor, Environmental Technology, Aalto University
- Lucas Joppa, PhD (Ecology), Chief Environmental Officer, Microsoft
- Sirpa Juutinen, Independent Sustainability Advisor
- Julia Woodhouse, Board member, member of the Audit Committee, Outokumpu

The council's role is to challenge and comment the company's ESG strategy and actions as well as facilitate dialogue between Outokumpu and its stakeholders.

During 2021 an internal, cross-functional ESG core team was also established. The team supports the implementation of the sustainability strategy giving executive proposals and draft decisions to the Outokumpu's management who will then implement necessary actions. The team includes members from Group sustainability, procurement, communications, compliance, HR and safety functions.

Sustainable Development Goals in our focus

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

In 2021, our focus on the SDGs was realigned according to our updated materiality analysis. Our main focus is on the following six goals: affordable and clean energy, decent work and economic growth, industry, innovation and infrastructure, responsible consumption and production, climate action and partnerships for goals.

Read more about our impact on the SDGs

Outokumpu in COP26

Outokumpu was invited to participate in the Vision 2045 summit in connection with the COP26 meeting in Scotland in November 2021. The agenda of the summit was formed around the UN's Sustainable Development Goals.

Based on a new materiality analysis conducted during 2021, Outokumpu updated its focus on the SDGs and selected six goals that are most relevant either through the way we operate or through our products: affordable and clean energy, decent work and economic growth, industry, innovation and infrastructure, responsible consumption and production, climate action and partnerships for goals.

"We have a strong track record in sustainability, but we have to also work with our partners and suppliers to enable our work towards a world that lasts forever," says **Stefan Erdmann**, CTO and Group Sustainability.

As a part of our participation, a short documentary film was made to explain how Outokumpu contributes to global sustainability and to the United Nations' Sustainable Development Goals.

See the documentary

Sustainability performance in 2021

Outokumpu has set ambitious goals and key sustainability performance indicators. The company also follows up and measures other selected economic, social and environmental indicators.

All sustainability figures are available on the sustainability data tool on Outokumpu's website

Active participation in our employee survey

We achieved our target for the Organizational Health Index survey participation rate.

More on our people

TARGET **>80%** / RESULT **86%**

Work-related injuries continued to decline

Our total recordable injury frequency rate (TRIFR, per million working hours) continued to decline and was 2.0 compared to 2.4 in 2020.

More on safety and health

TARGET **<2.2** / RESULT **2.0**

Significant improvement in energy efficiency

The improvement in energy efficiency was supported by digitalization projects and higher volumes than the year before.

More on energy efficiency

TARGET 2030 **3.00**/ STATUS **3.15**
MWh per tonne

No significant environmental incidents

Outokumpu's target is to have no significant environmental incidents, and the company has had no such incidents for many years.

More on our environmental impact

TARGET **0** / RESULT **0**

Recycled material content on a high level

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

More on resource efficiency

TARGET **92.5%** / STATUS **90.1%**

Reduced CO_2 emissions intensity

In 2021, our science-based climate target was updated to align with the 1.5°C climate ambition.

More on our actions on climate change

TARGET 2030 **42%** / STATUS **15%**

Working towards a 1.5 °C future

Outokumpu contributes to climate change mitigation by offering sustainable stainless steel products that are durable, long-lasting, and endlessly recyclable. We also work continuously to minimize our own carbon profile and have established ambitious science-based targets.

Ice fishing by our Tornio mill in northern Finland. Our climate target is in line with keeping the global warming within 1.5 degrees.

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, helping our customers to reduce their carbon footprints. We have committed to reducing our emissions even further throughout the whole value chain.

Ambitious goals to mitigate climate change

In 2021, Outokumpu launched a new sustainability strategy and more ambitious climate targets to further strengthen our position as the industry leader in sustainability. As part of the new sustainability strategy, Outokumpu increased its greenhouse gas emission reduction target and committed to the Science-Based Targets initiative's (SBTi) 1.5 °C climate ambition.

Outokumpu's updated science-based target is to reduce scope 1, 2 and 3 greenhouse gas emissions by 42% per tonne stainless steel by 2030 from a 2016 base year. This target was approved by the Science Based Targets initiative in December 2021.

Reporting and target setting was further developed, and the new target covers over 95% of scope 1 and 2 and over 95% of scope 3 emissions as required in the new SBTi standard. In the previous target about 80% of scope 3 emissions were included. The target is in line with the short-term Business Ambition of 1.5 degree objectives. In the long-term, Outokumpu is committed to reaching carbon neutrality in own operations by 2050.

Origins of emissions

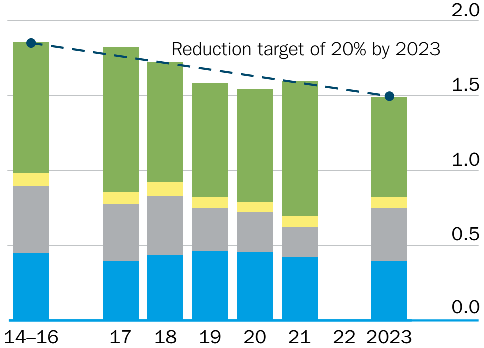
The direct greenhouse gas emissions from Outokumpu operations are limited to CO_2 emissions. These emissions come directly from production (scope 1), indirectly from the use of electricity (scope 2) and from upstream emissions mainly from the use of materials (scope 3).

Direct emissions originate from the carbon content of our raw materials and from the use of fuels. Our production has increased by 10.5% compared to baseline, but direct emissions have increased only by 3.5% by improving energy efficiency, replacing fossil fuels with lower emission options, digitalization and the positive impact of high production volumes.

Indirect emissions in scope 2 are caused by the use of electricity and could be reduced

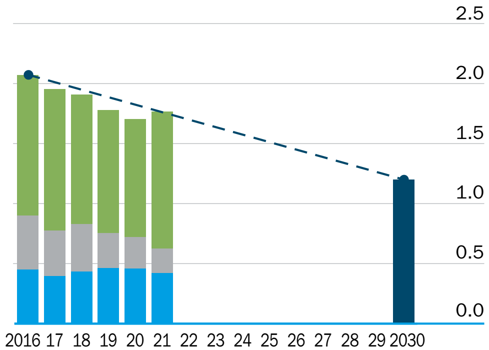
Target for science-based target criteria

Outokumpu's CO_{2eq} emission intensity, tonnes of CO_{2eq} per tonne steel



New approved target for science-based target criteria

Outokumpu's CO_{2eq} emission intensity, tonnes of CO_{2eq} per tonne steel



The new reporting condition of the SBTi resulted in a recalculation of the baseline and in higher emission intensity figures.

by about 50% with the low-carbon electricity strategy. Scope 3 emissions increased by 7.5% compared to the base year. The increase was less than production increase. 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.

Other indirect emissions for steel production are mainly upstream emissions from material use of for example ferroalloys (except ferrochrome which is included in direct and indirect emissions of scope 1 and 2) as well as lime and dolomite, transportation and to a lesser extent from some other scope 3 emissions. Emissions arising from the externally used carbon monoxide and external services are included in scope 3 emissions.

At the moment, there are no estimation methods for the complex downstream emissions of stainless steel available. Case studies from consultants indicate CO_2 net savings of steel use from life cycle assessment.

Toward a lower 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 in our operations. Increasing the recycled material content in our stainless steel and improving resource efficiency are key factors in reaching lower CO_{2eq} 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 CO_{2eq} emissions into purchase decision making and working on innovations across industries to discover new ways of reducing CO_2 emissions.

In 2021, the total specific CO_{2eq} emissions were reduced by 14.3% compared to the baseline of 2014–2016. Key drivers for reduced emissions were the increased energy efficiency and maintaining a high level of recycled material content. Energy efficiency was especially improved with digitalization of processes at our site in Tornio, Finland. Travel restrictions due to the COVID-19 pandemic lowered business travel emissions by 75% compared to pre-pandemic levels.

In 2021, Outokumpu consumed overall 29,300 TJ of primary fuels and electricity with a slight increase due to much higher production. The overall energy intensity improved significantly from 11.0 to 9.9 GJ per tonne crudes steel.

See all data on CO_2 emissions in the sustainability data tool on Outokumpu's website

Climate commitment to science-based targets

Outokumpu is the only stainless steel company committed to the Science Based Targets initiative (SBTi). The initiative considers companies' greenhouse gas reduction targets science-based if they are in line with the level of decarbonization required to keep the global temperature increase below 1.5°C.

Outokumpu's previous science-based target for 2016–2023 was to reduce scope 1, 2, and 3 greenhouse gas emissions by 20% per tonne of stainless steel from a 2014–2016 base period.

This target follows the well-below 2°C scenario convergence criteria of the steel industry's decarbonization approach and the electricity decarbonization approach, where the specific emission reduction target is 95% by 2050.

Outokumpu's targets were renewed during 2021. This year we report the existing target development to show the performance of last years and the development of the new science-based target for the next decade. The updated science-based target is to reduce scope 1, 2 and 3 greenhouse gas emissions by 42% per tonne stainless steel by 2030 from a 2016 base year.

Low-carbon roadmap

Outokumpu has developed its roadmap to reach the set 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 2021, an internal instruction for calculating the CO_2 impact of projects was implemented and a total of 190 improvement projects were identified to have an impact on CO_2 reduction.

The expectation of business-as-usual scenario is a 0.5% yearly reduction in energy intensity by implementation of energy efficiency projects. Furthermore, the energy intensity performance

How are we fighting climate change

Outokumpu committed to a more ambitious Science Based Targets climate initiative to keep global warming within 1.5 degrees. Our head of sustainability Juha Erkkilä explains our climate target.

By how much have you already reduced the carbon footprint so far?

At the end of 2020 we had already reduced our CO_2 emissions by 17%, so we had nearly reached our science-based target of cutting our CO_2 emissions by 20% from 2014–2016 levels and that is why we decided to increase our ambition. We have reduced our overall CO_2 emissions from 5 million to 4 million tonnes since 2016. Reporting on carbon footprint is not anything new to Outokumpu; we have done it for several decades and reported all scopes since 2016. We have the lowest carbon footprint in the industry, and our customers save our planet from 10,000,000 tonnes of carbon dioxide by using our stainless steel – every year.

What can you still do?

There is still plenty to be done. Our next step is to further reduce our total carbon footprint by some 30% by 2030 compared to the 2020 level. This target is now being approved by the Science Based Targets initiative, the highest standard in credible climate targets. Outokumpu is the only stainless steel company with an approved Science Based Target which we should be proud of, especially since we have already delivered on these targets in plan. We can achieve this new target by using recycled materials, further improving energy and material efficiency, increasing the use of renewable and low carbon energy, improving yield, utilizing waste heat, taking into account the carbon footprint of each of our suppliers and selecting the right suppliers, reducing the carbon footprint of transport, replacing coke with biomaterials and liquefied natural gas with biogas and other fossil-free heating methods such as electrification.

What about carbon neutrality?

We have said that we will reach it in our own operations by 2050. At the same time, we have also set a reduction target by 2030 for the carbon footprint of our suppliers, and we will work with them to reach that goal. The ways to reach carbon neutrality are essentially the same as those in cutting the emissions by 30%. Using hydrogen – as in the production of carbon steel – is not an option in stainless steel as we are not reducing iron ore in our processes, but we have used electric arc furnaces for years already and are now investigating replacing coke with biomaterials. Coke is the biggest factor in our own direct emissions, it is used as a reducing agent to remove oxygen from chromite ore. We have already developed and tested the use of bio-based materials, and the results indicate that coke could be replaced with bio-based materials that could fit directly into the current production assets – but as said, that is still under investigation. We are also working on carbon-free ferrochrome manufacturing and we are confident that we can make our operations carbon neutral.

of cold rolling mills is expected to reach the best performance of the last years by 2023.

The strategy to further reduce CO_{2eq} emissions of electricity is to expand the low-carbon electricity supply, invest in renewable energy projects and buy certificates. In 2021, Outokumpu bought guarantees of origin for 0.5% of electricity used in the EU area from the energy producers.

Implementation of higher grade of digitalization shall confirm further yield, energy and material efficiency improvement for the company's operations which directly impacts the CO_2 emissions.

In the Tornio mill, the majority of direct CO_2 emissions originate from coke which is used as a reductant in the ferrochrome production. Carbon monoxide is a side-stream from that reduction process. It is recycled as a heating fuel in ferrochrome and stainless steel production and about one third is sold outside. The use of carbon monoxide creates CO_2 emissions that are allocated according to the use either in ferrochrome, stainless steel or external use. For the short-term target a significant share of fossil coke is to be replaced by bio coke and would reduce a notable amount of CO_2 emissions in Tornio. In the long run, direct reduction for ferrochrome could replace completely the use of coal-based reductants.

Most direct CO_2 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 as replacement of propane by natural gas where reasonable and plans to use carbon neutral bio-fuels in some operating sites.

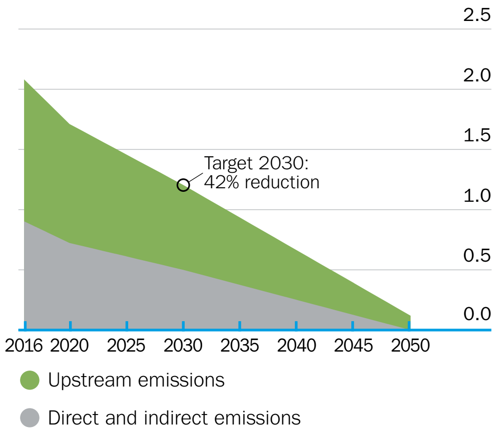
A further option to reduce CO_2 emissions in the atmosphere is the Carbon Capture and Storage/Utilization (CCS/CCU). Studies with external partners are ongoing.

Indirect and transport emissions

Over 60% of the greenhouse gas emissions correlates to the scope 3 emissions mainly coming from material use 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 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. Recycling is followed by the key performance indicator of recycled material content. For the roadmap an increase of recycled material use is estimated and ideally would end up in a mainly circular stainless steel production.

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



The transition to the 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 the communities to realize the projects together. Further transport emissions reductions will be implemented in the short-term target period by using three new vessels that use liquefied natural gas instead of heavy fuel oil.

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.

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.	SR 4 Sustainability at Outokumpu; FS 6
	b) Describe management's role in assessing and managing climate-related risks and opportunities.	SR 4 Sustainability at Outokumpu; FS 6–7; GC 15–16
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.	SR 6–10 Climate change; FS 11; CG 24
	b) Describe the impact of climate-related risks and opportunities on the organization's businesses, strategy, and financial planning.	SR 6–10 Climate change; FS 11; CG 24
	c) Describe the resilience of the organization's strategy, taking into consideration different climate-related scenarios, including a 2°C or lower scenario	SR 6–10 Climate change; FS 11; CG 24
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.	SR 6–10 Climate change; FS 6–7, 11; CG 15–16, 24
	b) Describe the organization's processes for managing climate-related risks.	SR 6–10 Climate change; FS 6–7, 11; CG 15–16, 24
	c) Describe how processes for identifying, assessing, and managing climate related risks are integrated into the organization's overall risk management	SR 6–10 Climate change; FS 6–7, 11; CG 15–16, 24
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.	SR 6–10 Climate change; FS 8
	b) Disclose Scope 1, Scope 2, and, if appropriate, Scope 3 greenhouse gas (GHG) emissions, and the related risks.	SR 6–10 Climate change; FS 8
	c) Describe the targets used by the organization to manage climate related risks and opportunities and performance against targets.	SR 6–10 Climate change; FS 7–8

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, to 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 pollution. The trajectory for emissions in the sustainable development scenario of IEA is consistent with reaching global "net-zero" CO_2 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 of the SDS includes the possible CO_2 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. 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

The climate change risks have been analyzed on today's situation, as well as on medium and long-term time scale. The physical risks were estimated by the Atlas of the Human Planet of the EU's Joint Research Center from 2017 and 2019. According to these sources, our company's operation sites are not exposed to or have mitigated relevant physical risks due to climate change. Extreme weather conditions can have a limited impact on operations. Water risk was further assessed on medium and long-term time scale by the Aqueduct program from World Resource Institute for 2030 and 2040.

Only limited change in the risk categories of operation sites can be observed. Especially the site in San Luis Potosí, Mexico, situated in an arid area, will be under future water risk increase. The water management of this site is in focus and will be further evaluated on future water stress.

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.

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 life-cycle 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 a 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 on high alloy steel with low-carbon footprint that customers are increasingly demanding.

Investors are looking for financing sustainable projects or investing 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

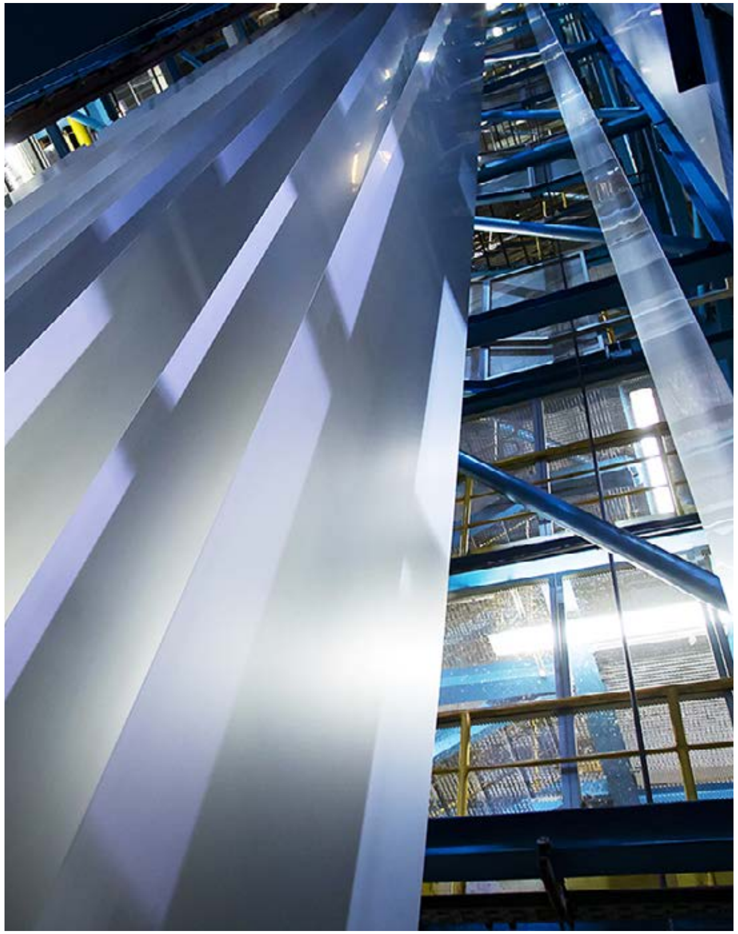
81% of Outokumpu's all direct CO_2 emissions fall under an emissions trading system (ETS). The main risks of the started trading phase 2021–2030 of the emissions trading system to Outokumpu involves the pass-through costs of allowances to the electricity price. The system has maintained free allocation to avoid carbon leakage. The free allocation decreased according to the lower benchmarks and lower cost pass through factor. Outokumpu forecasts to have adequate amount of the EU emission allowances until the end of this decade. However, future decisions on for example EU ETS including the carbon border adjustment mechanism (CBAM), may have an impact on this forecast.

Allowance prices increased significantly and 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.

European Commission is preparing carbon border adjustment mechanisim and plans to phase out the emissions trading system. The discussed proposal is not considering the stainless steel special conditions as a high price level and the high impact of the scope 2 and scope 3 emissions. There is a high risk that the carbon leakage avoidance measure in the trading system will be removed but not overtaken by the planned carbon border adjustment mechanism for stainless steel industry. ■

Energy efficiency in focus

Improving the energy efficiency of our operations is one of the main drivers to achieve our ambitious climate targets.

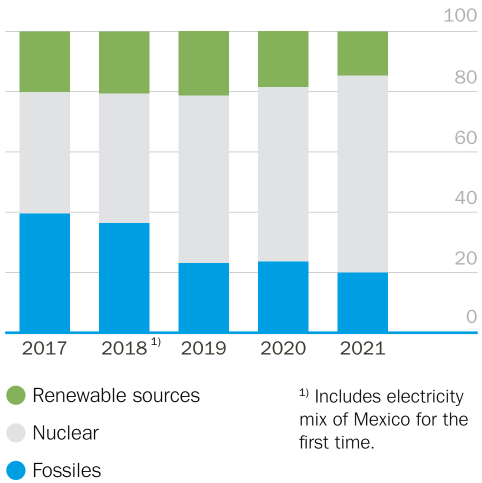


In our mill in Krefeld, the waste heat generated during the operation of the bright annealing line is utilized to generate heat in other parts of the mill. It is often small measures for energy efficiency and climate protection which in total contribute significantly to make our production more sustainable.

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.

Origin of electricity, %



[1] Includes electricity mix of Mexico for the first time.

Energy efficiency improved significantly

In 2021, our energy intensity per tonne stainless steel was reduced by 10%. The improvement of energy efficiency, calculated as a sum of different process steps including ferrochrome, was 2.6% compared to the baseline 2018–2020. The reached energy efficiency improvement corresponds to a yearly saving of 0.18 million MWh in 2021. In 2021, the energy efficiency target was helped by digitalization projects in Tornio and higher volumes compared to the previous year.

Outokumpu's target is to achieve an improvement of energy efficiency by 0.5% each year by 2030, reported as improvement compared to base-period of 2018–2020. In 2021, energy efficiency was 3.15 MWh/t against the target of 3.26 MWh/t. Additionally, cold rolling mills are expected to reach the level of best performance of the last seven years by 2023. The energy efficiency target for 2030 is set to reach 3.00 MWh/t.

The biggest energy-saving potential lies in the optimization of yield. Yield refers to how much sellable products we can make of the metal raw materials added to the process. Energy reduction and efficiency plans are included in environmental management systems at all our sites.

Toward 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 2021, 80% 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, combined heat and power as well as nuclear power. In 2021, Outokumpu signed two deals to increase wind power in electricity procurement by securing 10-year wind power agreements with Gasum in Finland.

As primary energy sources, we use natural gas, propane, or other fuels, such as diesel. Fossil fuels cover about 80% of our total fuel consumption. Outokumpu does not consume fuels from renewable sources in production processes today, but we utilize our own recovered carbon monoxide process gas which accounts for 20% of our total use of fuel. Process gases and waste heat are also used to heat buildings on sites.

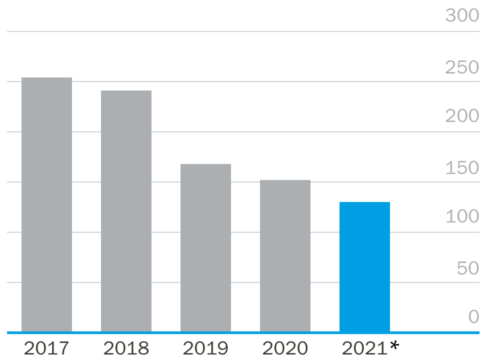
For example, the combined heat and power plant in Tornio produces heat for the Tornio site out of recovered process gases, and in Dahlerbrück, Germany, we have our own hydropower plant to generate some 10% of the electricity needed in the production. Outokumpu is a shareholder in a wind power park in Tornio and in the Fennovoima nuclear power plant project in Finland. Fuel switch to lower carbon emission fuels is ongoing. Natural gas is in use at our sites in Germany, Mexico, the US, the UK and Finland. We still have some improvement potential left in Sweden where we are actively studying options for alternative fuels.

See more details in the sustainability data tool on Outokumpu's website

Energy used in operations

Gigawatt hours, GWh	2021	2020	2019
Electricity	**4,641**	4,371	4,490
Carbon monoxide gas	**700**	625	670
Natural gas	**2,106**	2,019	2,011
Propane	**546**	508	562
Diesel, light and heavy fuel oil and other	**153**	159	186
Energy	**8,145**	7,682	7,919
Energy use in GJ per tonnes crude steel	**9.9**	11.0	10.9

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



* 0.5% of electricity use in EU market is coming with guarantees of origin from ownerships in power production

Increasing the share of wind power

In 2021, Outokumpu and Gasum signed two new 10-year power supply agreements for renewable wind power. The contracted wind power energy covers almost entirely the electricity consumption of Outokumpu's Kemi mine. According to the agreement, deliveries will begin in the summer of 2023.

The agreement is a step towards achieving our emission reduction targets. Increasing the share of low-carbon electricity is one of the most important ways to achieve carbon neutrality by 2050.

"With the new agreement, we can further increase the already high share of low-carbon electricity in our production. The wind power agreement is a natural continuation of good cooperation with Gasum. We are currently working together on the LNG terminal in the Port of Tornio, which has enabled us to replace propane in our production with liquefied natural gas," says **Mika Orpana**, Head of Energy and Utilities, General Procurement at Outokumpu.

Operating at the core of the circular economy

Stainless steel is a durable material that fits perfectly into the circular economy. Recycling saves resources, and stainless steel is made of recycled materials. At the end of its life cycle, stainless steel is fully recyclable, without any quality degradation.

Our most important raw material is recycled steel, pictured here in our scrap yard in Avesta, Sweden. Increasing the recycled material content of our stainless steel is the most efficient way for us to reduce our overall environmental footprint.

In a way, 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 manufacturing process to replace natural resources.

Highest recycled material content in the industry

Recycled steel from both stainless and carbon steel is our most important raw material. Increasing the recycled material content of stainless steel is the most efficient way for Outokumpu to reduce the overall environmental footprint.

The recycled steel content of our stainless steel, defined according to ISO 14021, was 86.3% in 2021. This includes pre- and post-consumer scrap. Including the use of recycled metal from our waste streams, the recycled material content of our products was 90.1% in 2021 against our target of 92.5% for 2021. The result was impacted by the low availability of steel scrap. We aim to reach and maintain the high level of 92.5% until 2023.

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

Waste management

Tonnes	Generated	Diverted from landfill	Landfill
Non-hazardous waste	**1,509,257**	**1,115,902**	**393,356**
Scales	12,697	12,697	0
Slag	336,862	0	336,862
Tailing sands	1,069,265	1,069,265	0
Other waste	90,434	33,940	56,494
Hazardous waste	**147,772**	**76,390**	**71,382**
Steelmaking dust	73,794	56,182	17,612
Oily sludge	9,346	8,543	803
Regeneration & hydroxide sludge	35,334	8,711	26,624
Neutralization sludge	22,919	0	22,919
Other waste	6,379	2,954	3,425

are continuously looking for best ways to recycle the metals of our melt shop dust. Dust recycling increased especially at our site in Calvert, the US. These side streams are either treated on site or by an external facility for recycling in our melt shops. Metal recycling is the main driver of the reduction of the upstream material emissions (scope 3).

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.

Recycling as much as possible

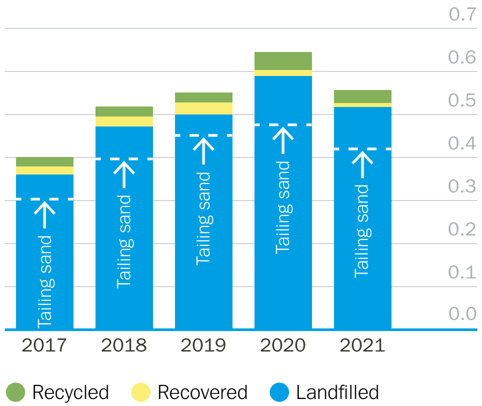
In our production, all production material streams are studied carefully to find the means of fully recycling, reusing, or selling them as by-products. Our approach to reaching lower waste amounts is twofold: we aim to reduce the total volume of landfill waste from our own operations and increase the proportion of materials sold as by-products.

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. Therefore, we decided to set a target for waste (other than slag) going to the landfill to be reduced by 0.5% per year. In 2021, all waste to landfill per tonne stainless steel was reduced from 0.59 tonnes to 0.52 tonnes.

The amount of tailing sands from the mining operation slightly increased in 2021 compared to the previous year, as the production of chrome concentrate increased. Waste management is in our focus and we reuse, recycle and recover as much material as reasonable. Scales and metals from precipitator 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

Total waste development, tonnes per tonne steel



Turning slag into by-products

Outokumpu sold or used 1.24 million tonnes of slag as the main by-product of operations. Slag is an essential material in the steel melting process, and it is made from lime or other natural minerals.

Outokumpu has developed slag-based mineral products for road construction, refractory, concrete production and for water treatment. The use of our slag by-products reduces the amount of landfilled waste, saves virgin materials, and leads to lower CO_2 emissions. For example, in road construction, slag use is an environmentally and economically sustainable solution.

In 2021, Outokumpu established a company-wide working group to develop value-added products of slag and other sidestreams.

In 2021, the use rate (including use, recovery, and recycling) of all slag was 79.0%. The remaining share of slag was sent to landfill. The use rate depends on the local market for construction materials and on the acceptance of secondary material instead of virgin materials.

Circular economy in action in Tornio

The modern stainless steel industry is a prime example of circular economy in action. In fact, Outokumpu's Tornio mill is Europe's largest material recycling center. Tornio site processes annually over 1 million tonnes of recycled steel, corresponding to around 1.4 million scrapped cars.

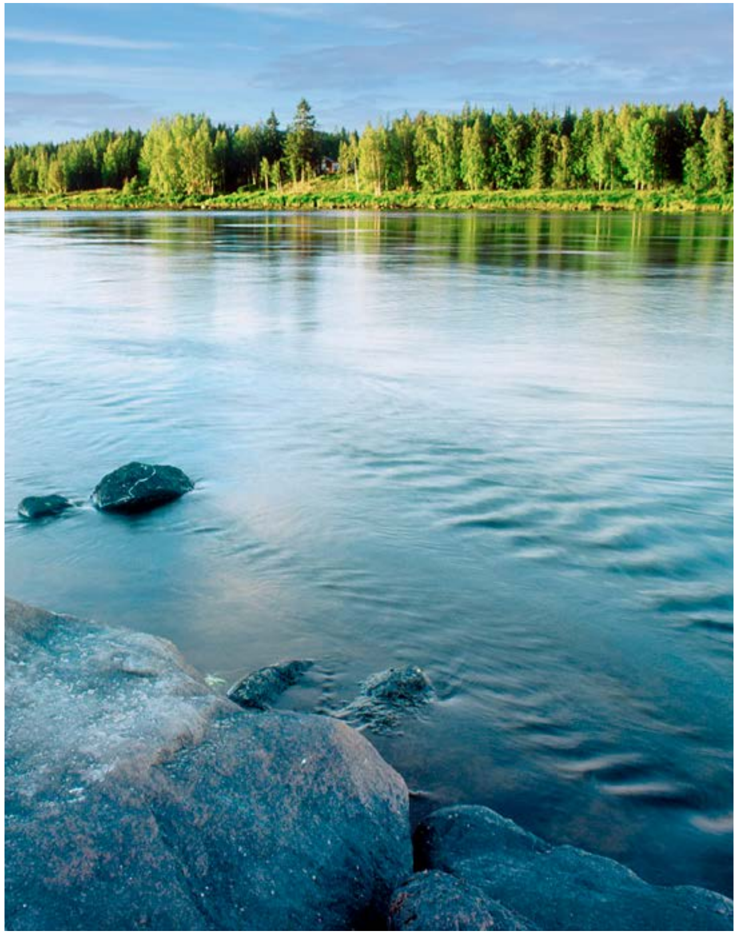
"When you buy a new washing machine you may get your old pot back in a totally new form. Your good old friend from the kitchen may have ended up to Outokumpu Tornio mill and been melted into recycled steel and further used by a washing machine manufacturer as part of a brand-new product", explains **Niklas Wass**, Executive Vice President, Operations, business area Europe.

In addition to recycled steel, side streams from the production, such as dust from smelting and scales from rolling are recovered and reused as much as possible.

Other by-products are also utilized to the fullest. For example, the slag generated as a by-product of Tornio's ferrochrome production can be utilized almost completely in road construction insulation or in concrete production.

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.



One of the main attractions in northern Finland is the Tornio river with its thriving ecosystem and economy. It is one of Europe's largest salmon rivers.

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.

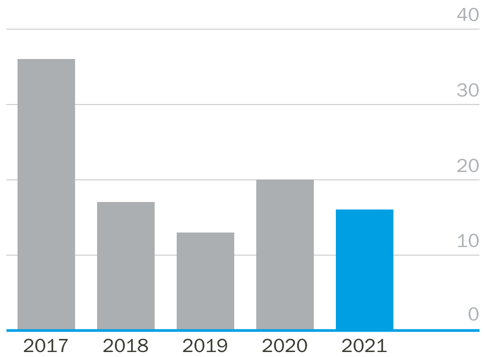
Environmental compliance

Our environmental network follows closely 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 2021, there were 16 permit breaches*, but all were temporary and did not have a significant impact on the environment. Outokumpu reported each incident to environmental authorities, carried out corrective actions immediately or resolved the incidents together with the authorities. No environmental damage was detected.

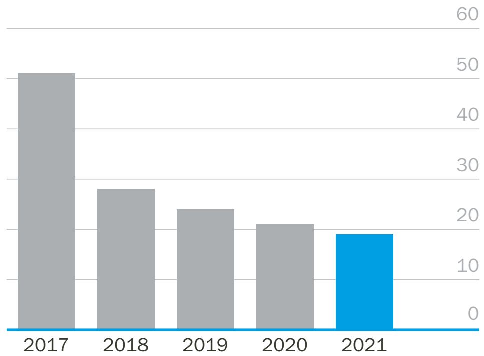
As our main raw material is recycled steel, we take all possible precautionary measures to check the input material for any unwanted content, such as mercury and radioactive contaminated material. In 2021, there were

* One case was reported after the end of the reporting period.

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.

eight sources detected. Five of them could be separated from scrap supply, three were input in the process. All of the incidents were dealt with in accordance with authority guidance and did not cause exposure. 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 230 tonnes in 2021. A large share of the particles, 183 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 withdrawal and discharges

Million m³	2021	2020	2019
Surface water	**32.3**	46.1	45.4
Sea water	**13.1**	n/a	n/a
Municipal water	**1.2**	1.1	1.2
Groundwater	**2.3**	2.6	2.4
Rainwater	**1.9**	2.4	1.8
Water withdrawal by source	**50.7**	52.2	50.7
Water discharges by type and destination			
Cooling water out	**14.5**	13.2	13.4
Wastewater out	**21.1**	22.1	22.4
Discharge to surface water	**13.3**	20.9	21.1
Discharge to sea water	**6.7**	n/a	n/a
Emissions to water			
Metal discharges to water, tonnes	**30**	44	39
Nitrogen in nitrates, tonnes	**1,220**	1,070	1,046

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 and nitrates. The discharge is measured and supervised by the authorities. Out of the 16 permit breaches that occurred in 2021, six cases were minor non-compliances in wastewater. They were coordinated with authorities, immediately removed and analyzed.

Wastewater treatment depends on the contamination of the wastewater. The water is treated directly in the water circle at the process step and before discharge. 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 the 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. The impact was screened by the percentage of withdrawn water compared to the river flow on a yearly basis in 2020. None of the sites had an impact on the river, meaning the withdrawal was below 5% at all sites. The river water quality in Avesta, Sweden, remained unchanged with a very limited impact according to an impact study on the river Dalälven.

Outokumpu operates a cold rolling mill in San Luis Potosí, Mexico, in a dry, arid area, where groundwater is a scarce resource for people. The groundwater withdrawal accounts for about 0.27 million m³ and the freshwater discharge to municipal waste water system was at about 0.07 million m³. Water recycling and treatment at this site are especially ambitious to minimize the groundwater impact. According to the water risk assessment, future water stress change will be further evaluated.

Limited impacts from the mine

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 concentrator plant on the surface level. Furthermore, a significant amount of 1.0 million m³ of rain and snow melting waters were collected in the process in 2021. The Kemi mine discharges 2,980,000 m³ water from the area, including rainwater, whereas the water intake from the municipal supply is only 19,200 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 has not been 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.

Environmental impact assessment process continued at the Kemi mine in 2021. In the process, the mine is looking to find more sustainable processes related to material recovery.

Areas of high biodiversity value

Site	Site area in km^2	% of total owned land
Calvert, US	4.69	18.8%
Dahlerbrück, Germany	0.063	0.3%
Kemi, Finland	9.16	36.7%
Tornio, Finland	6	24.0%

Biodiversity

Outokumpu is committed to supporting biodiversity and takes it in consideration in its decision-making. The main way for Outokumpu to contribute to maintaining biodiversity globally is through the reduction of greenhouse gas emissions. 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. 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 80% of the total owned land.

Outokumpu's site in Tornio, Finland is located near Natura protected water areas. No risk to the protection basics of those areas have been identified according to Natura assessment conducted in 2020. The Natura assessment has taken into account the effects of operation on the protection criteria for Natura sites in the vicinity of the Tornio industrial area on the Finnish and Swedish sides. Some very rare biotopes have been found just by the mill area as well as some protected animals, such as a frog species and otters.

The Kemi mine is adjacent to two Natura protected peat and wetland areas but no indication, claim or report of any negative impact of mining activities on biodiversity have been identified. In 2021, a Natura assessment was done to the nearby Kirvesaapa Natura area. The assessment noted that the current production has no significant impacts to the area. Also an ecological survey conducted during 2020–2021 found several different habitat types, vegetation and bird faunas in the nature around the mine area with no impacts from the mine. The Kemi mine cooperates with local ornithological society to monitor the local biodiversity. During 2021, the Kemi mine and Tornio operations have both done fish plantings in addition to permit obligations to increase biodiversity.

In Dahlerbrück, Germany a protected area is partly located on the company's property. There are e.g. endangered deciduous forests and natural silicate rock biotype with some endangered animal habitats and plant species such as crinkled hairgrass and fern.

In Calvert, Alabama, the US, some 80 hectares of the property is defined as wetland including some restrictions on land use. The site management has identified as a biodiversity aspect that part of the wetland area is home to a wide array of wildlife, like wild turkeys, bears, fox squirrels, gopher tortoises and snakes, among other species.

The rich birdlife makes the Kemi mine area unique

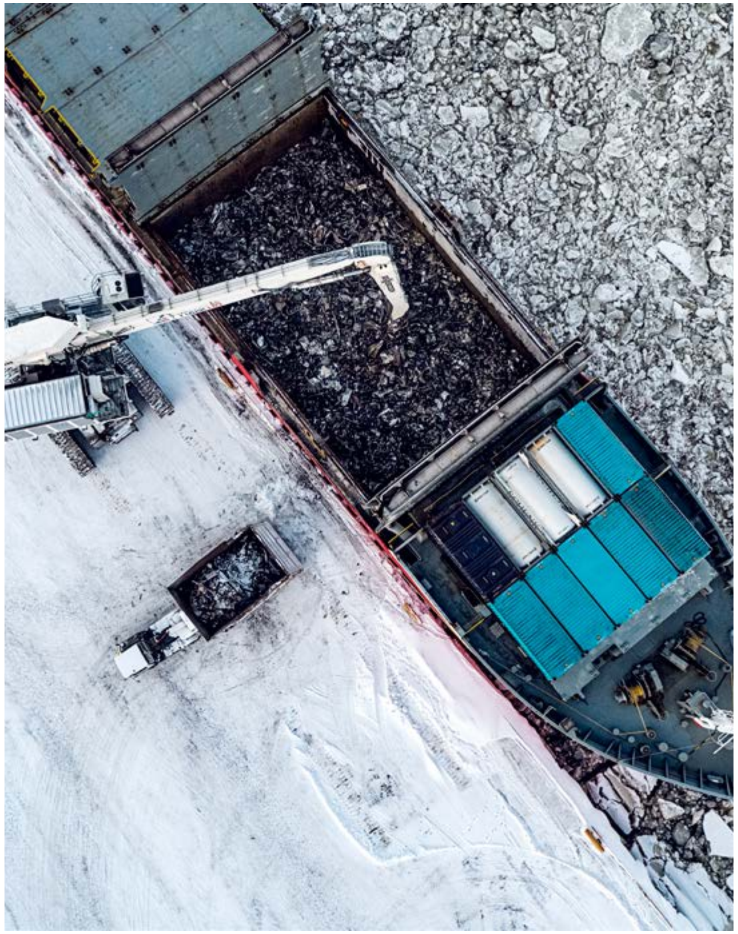
The unique ecosystem of the Kemi mine area has created a diverse environment for different bird species. The area is popular with local bird watchers, and Outokumpu's cooperation with the local bird watch association Xenus has continued for decades.

The association monitors the birds in the area and organizes various bird tours for its members. "The basin area of the Kemi mine is very rich in birds," says **Pentti Rauhala**, the association's long-time member, who has been actively monitoring the birds in the mining area since the 1950s.

"During the breeding season, we visit the area almost daily. You see something great almost every time," says Rauhala. Various waterfowl, ducks and waders are the most common bird species in the area and, for example, herons nest in the area.

Strengthening our sustainable supply chain

Sustainability is at the heart of our business and our stakeholders require assurance that the materials for their applications are procured and produced in an ethical and responsible manner.



We are 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 on our suppliers, too.

Outokumpu's supply chain activities are guided by our Code of Conduct, Supplier Requirements and our Corporate Responsibility Policy. Outokumpu is also committed to the Modern Slavery Act, the United Nations Guiding Principles on Business and Human Rights (UNGP) and we are implementing the UN's Protect, Respect, and Remedy Framework, as well as the OECD Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict Affected and High-Risk Areas.

Strict requirements on ourselves and our suppliers

As our customers require a lot from us, we place the most stringent requirements on ourselves, and we require the same from our suppliers. All suppliers and subcontractors are expected to comply with our Code of Conduct and meet our Supplier Requirements, which require our suppliers to respect and protect human rights as set forth in the ILO's Declaration on Fundamental Principles and Rights at Work, the International Bill of Human rights, and specifically the rights of particularly vulnerable groups, such as indigenous peoples.

Suppliers are required to have processes and policies in place that ensure the health and safety of their employees, the protection of the environment, and the selection of sub-suppliers that also fulfil our requirements.

By accepting Outokumpu's Supplier Requirements, our suppliers agree to answering self-assessments and to being audited on site. Outokumpu's suppliers are onboarded and monitored in accordance with our Know Your Business Partner Instruction.

In 2021, Outokumpu had around 6,880 suppliers. In our significant production units, around 50% of the spend was made on local suppliers.

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.

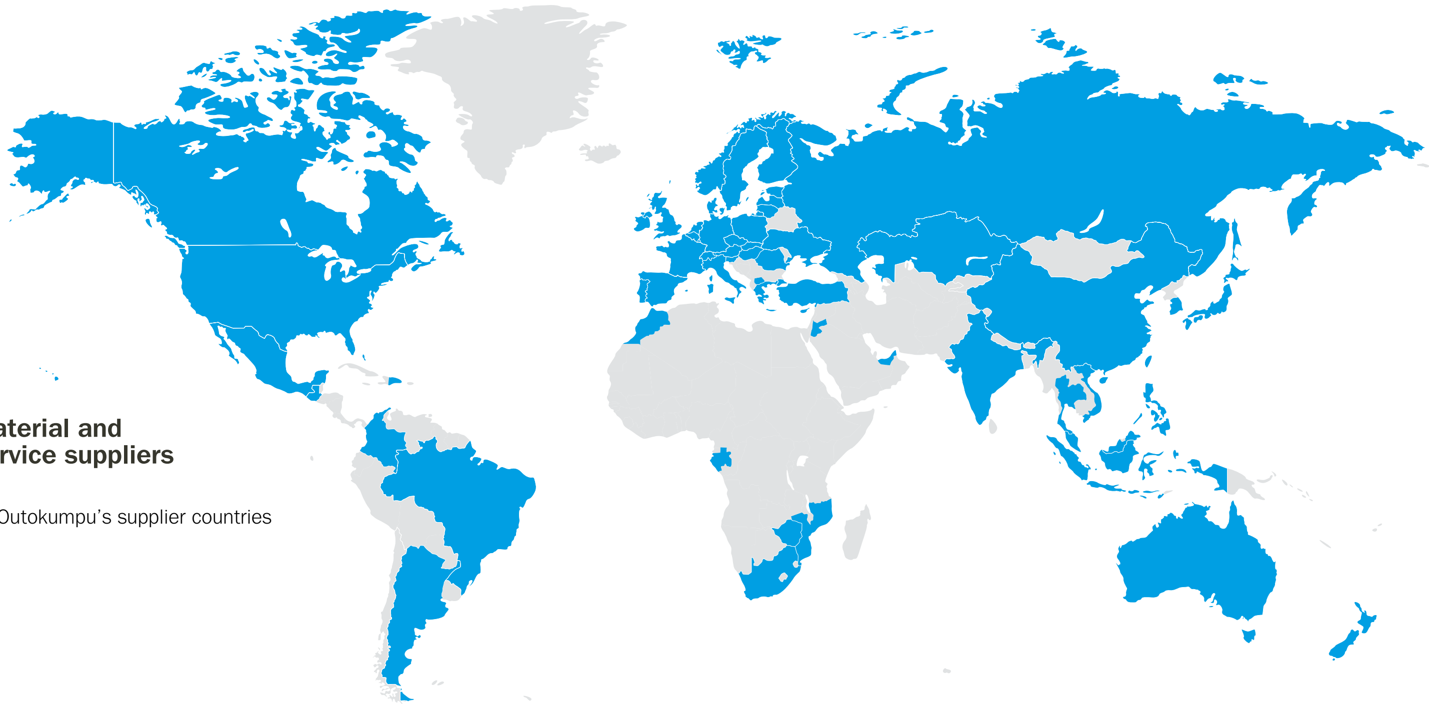
A year of accelerated progress

2021 was a year of acceleration for Outokumpu's sustainable sourcing practices. During spring, Outokumpu's Code of Conduct and the Supplier Requirements were updated, adding important sustainability elements and requirements for our suppliers. General procurement engaged in a project assessing their key suppliers with an updated self-assessment. During autumn, raw material procurement employed a supplier sustainability manager, signed a contract with supplier sustainability assessment platform EcoVadis, extended the supplier evaluation scorecard with sustainability and continued the collection of supplier and product specific CO_{2eq} emission intensities for selected products. Towards the end of the year, resources in the supplier sustainability management team in raw material procurement were increased with three additional positions in the team.

Outokumpu also engaged with an external partner to assess the situation at one of its Brazilian suppliers, after a report published by the Finnish NGO Finnwatch in February 2021. In addition, Outokumpu conducted the human rights risk assessment in accordance with UNGP together with a third-party advisor, assessing the risks that Outokumpu imposes on human rights, both with its own operations, as well as with its purchasing activities. Read more about the human rights risk assessment in Human rights management section in this report.

Raw material procurement

Our most important raw material is recycled steel, which primarily originates from Europe and the US where our melt shops are located. The main alloying element, chromium, originates from our own chrome mine that differentiates us from our competitors. Our mine in Kemi, Finland is the only chrome mine in the EU and we produce ferrochrome for all our steel melt shops and for sale. We are one of the few companies in the stainless steel industry with an integrated production – covering the production from the mining of chromite and ferrochrome production to the melting, hot rolling, cold rolling, and finishing of stainless steel. In 2021, Outokumpu had around 180 raw material suppliers in 52 countries.



Risk-based approach

Onboarding and monitoring of raw material suppliers follows a risk-based approach. The countries in which our suppliers operate are mapped against country-based risk indices, against the countries listed in the Dodd Frank Act Section 1502, as well as conflict-affected and high-risk areas (CAHRAs) as published by the European Union. 100% of our raw material suppliers were assessed with this risk-based approach. In 2021, 21 of Outokumpu's raw materials suppliers operated in countries with an increased risk, covering 22% of the total spend on raw materials.

Sustainability self-assessments

It is our target to assess all our active raw material suppliers regularly with sustainability self-assessments. In autumn 2021, we partnered with supplier sustainability platform EcoVadis to evaluate the sustainability performance of our raw material suppliers in depth and on a regular basis. 19 suppliers had valid scorecards in 2021, with an average rating score of 51 (scale 1–100), covering 33% of the spend. The suppliers not yet assessed were prioritized for assessment in 2022 using a risk- and spend-based approach.

Visits, on-site audits, and impact assessments with sustainability focus

Suppliers are selected for visits and on-site audits with sustainability focus based on a number of criteria, including their risk level, their results from the due diligence process during onboarding, their EcoVadis performance, spend and potential sustainability-related incidents.

2021 was still affected by restrictions to travelling due to the COVID-19 pandemic. During the autumn, one supplier was audited by certified Outokumpu personnel due to a radioactivity-related incident. The audit concluded with very good results, highlighting only a few improvement potentials. As a consequence of Finnwatch's report on Outokumpu's supply chain in February 2021, one supplier from Brazil was subject to a focused on-site impact assessment. The assessment was conducted by a third party specialized in sustainability and human rights and accompanied by an Outokumpu representative.

For 2022, several more impact assessments for suppliers in high-risk countries are planned and will be conducted together with third-party experts. Allegations have been raised related to one of our suppliers in Guatemala and the impact assessment has been started in 2021 and will include a visit to Guatemala in early 2022. During the assessment we do not only visit our supplier, but we also engage with external stakeholders, such as the affected communities, NGOs or other institutions.

Supplier performance evaluation and improvement support

During 2021, 16 of Outokumpu's raw material suppliers were evaluated towards their overall performance, covering 61% of the spend. The average score was 89 (scale 1–100). The evaluation focused on four areas: procurement, quality, technology, and logistics. Towards the end of the year, Outokumpu's raw material procurement extended its supplier performance evaluation. In addition to the four existing areas, the sustainability performance of a supplier is considered in the evaluation. The sustainability performance is measured with a number of criteria, including the score reached in the EcoVadis self-assessment. The new criteria will be in use from 2022 onwards.

Conflict minerals

The term "conflict minerals" refers to minerals originating from conflict-affected and high-risk areas. Especially tin, tantalum, tungsten, and gold (the "3TG"), but also cobalt are linked to risks in the supply chain. Those risks include the risk of contributing to or being associated with significant adverse impacts, including serious human rights abuses and conflict. Outokumpu adds tungsten and cobalt to a small number of its products. Outokumpu takes into account the OECD Due Diligence Guidance on Responsible Supply Chains of Minerals from Conflict Affected and High Risk Areas. New and existing suppliers of tungsten and cobalt are requested to provide information on their supply chain using the reporting templates of the Responsible Sourcing Initiative. In 2021, all suppliers of tungsten and cobalt provided the reporting templates, and no tungsten or cobalt originated from conflict-affected and high-risk areas.

Capacity building

During 2021, capacity building in the areas of social and environmental issues within raw material supply chains took place in form of five trainings related to the topics sustainable procurement strategy, CO_2 emissions, supplier management including sustainability, EcoVadis concept, and human rights. 50% of category managers and buyers participated in all trainings, and everyone participated in at least one of the trainings. The average participation rate was 71%.

General procurement

General procurement supplies all of the materials and services regarding all of the production sites in Europe. General procurement purchases production consumables, energy and utilities, process and auxiliary equipment, spare parts, general supplies, maintenance, and other services and transportation.

In 2021, the general procurement had approximately 6,700 suppliers in 49 countries. 256 suppliers have been qualified as key suppliers, and they cover over 60% of the total spending.

Risk-based approach

The general procurement applies a risk-based approach in supplier management. 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. This ensures that the suppliers comply with the Outokumpu Supplier Requirements and can provide conforming products or services on a consistent basis.

When introducing a new supplier, the supplier needs to confirm by signing a letter of confirmation that they fulfil the Outokumpu Supplier Requirements, Code of Conduct and ethical principles.

Suppliers from major sanctioned countries as well as countries with limited regulatory quality, rule of law, control of corruption and environmental performance may cause a higher supplier risk. Therefore, supplier qualification prior to supplier approval and periodic requalification of the existing suppliers in risk countries is required.

Risk countries are defined as major sanctioned countries as per Know Your Business Partner Instruction. Countries are classified as high, medium, or low risk categories. The compliance and sustainability teams are consulted for defining the risk countries.

In 2021, financial screenings for 145 new and existing suppliers were conducted in general procurement. Of the screened suppliers, four are located in medium or low risk countries, which are defined in the Know Your Business Partner Instruction. Screening is always carried out for new suppliers as well as for existing suppliers when risks are identified, for example in a financial credit or management change. In addition, the master data team carries out compliance screening as a part of the onboarding process for all new suppliers, and the compliance team does periodic screenings for all active suppliers as well as conducts case-by-case enhanced screenings, as required.

Sustainability self-assessments

General procurement makes self-assessments to evaluate suppliers. The self-assessments include auditing the transparency of the supplier's production chain from the suppliers' raw materials to the delivery of finished products and it covers the areas of ethics and sustainability, occupational health and safety, environmental management, quality, supply and production control, supply chain and supplier management and company management. The self-assessment questionnaire is available on Outokumpu's website.

Self-assessments are carried out for key suppliers on a regular basis as well as for new and existing suppliers when quality, production, sustainability, or similar kinds of risks or claims have been identified. If there have been many claims for the same supplier during a short time period, it is always considered imperative to carry out a self-assessment and an on-site assessment.

In 2021, the general procurement function executed an extensive self-assessment program. Approximately 220 self-assessment questionnaires were sent out to our key suppliers. By end of the year, 182 answers had been received and evaluated. The assessment reports are shared with the suppliers, and corrective actions for non-conformities as well as improvement opportunities are agreed upon. A remarkable number of good practices were also noted in the evaluations. This was a quantum leap forward in quality and sustainability management with our key suppliers, which is one of the strategic focus areas for 2022. In addition to the key supplier self-assessments, a couple of other self-assessments have been carried out regarding the quality or reputational risk or when a new supplier was introduced in 2021.

Visits and on-site audits with sustainability focus

Due to the COVID-19 pandemic, no on-site audits were conducted during 2021. As a continuation for self-assessments, on-site audits will be continued when the pandemic situation allows for it. Suppliers for on-site assessments are selected based on the results of the self-assessments. Both self-assessments and on-site audits are used as continuous improvement tools and for fostering closer and more open relationship between the suppliers and Outokumpu.

Supplier performance evaluation and improvement support

To drive the continuous improvement of suppliers, the key suppliers' performance is regularly evaluated by scorecards to identify improvement opportunities. Suppliers are assessed by using the following criteria: technology, quality, supply, cost, safety, environment, and financial risk. The performance evaluation is carried out together with the stakeholders from the production and led by the category manager. The results are used for defining the improvement actions with the supplier. The supplier performance assessment was carried out for 54 key suppliers in 2021, with an average rating score of 3.6 (on a scale of 0 to 5).

Capacity building

Workshops about the self-assessments have been arranged for the category managers relating to the self-assessment results, evaluation criteria and minimum requirements in the self-assessment categories including ethics, sustainability, and human rights. ■

Summary of actions in sustainable raw material sourcing taken in 2021 and planned for 2022

2021	
Commitment to the UNGP	• Commitment to the United Nations' Guiding Principles of Business and Human rights (UNGP) • Policy review to reflect this commitment • Renewed Code of Conduct and Supplier Requirements with emphasis on human rights • All personnel trained on the renewed Code of Conduct
Human rights / UNGP implementation	• Human rights risk assessment with Deloitte in accordance with the UNGP completed • Capacity building on human rights in procurement • Engagement of external experts for assessing suppliers' human rights impacts • Identification of high-risk suppliers for on-site assessment program with external experts
Supplier requirements and onboarding	• Renewed Supplier Requirements with emphasis on human rights • Amendment to the Supplier Requirements for raw material suppliers • Integration of sustainability into our supplier evaluation • Review of suppliers' onboarding process and intensified human rights due diligence
Supplier monitoring	• Increased resources in supplier sustainability • Development of incident management process • Engagement of sustainability platform EcoVadis to assess suppliers • Supply chain mapping extended to beyond our direct suppliers • Collection of supplier-specific CO_2 emission intensities for selected raw materials started • Three on site-visits after the ease of travel restrictions • Preparation for next human rights impact assessment including site visit in Guatemala

2022	
Human rights / UNGP implementation	• Finalization of Human Rights Policy • Integration of human rights risk assessment and due diligence process into existing risk management • Definition of actions for identified salient human rights risks, including learnings from on-site assessment in Brazil • Intensified human rights due diligence to be implemented in the supplier onboarding process • Assessment program for identified high-risk suppliers together with external experts
Supplier requirements	• Development of the Outokumpu Supplier Code of Conduct • Contract review to ensure that all contracts cover sustainability elements
Supplier monitoring	• Continue collection for supplier-specific CO_2 emission data • Increase the number of suppliers into EcoVadis rating system • Evaluate suppliers with new evaluation template including sustainability • Increase number of on-site visits, audits and impact assessments

Working in sustainable supply chain

A Finnish NGO, Finnwatch, reported problems with our ferronickel supplier, the Brazilian mining company Vale. Hannah Stratmann, Supplier Sustainability Manager at Outokumpu, takes us through the case.

What happened?

Finnwatch reported problems with Vale's Onça Puma mine in Brazil and criticized our supply chain monitoring. We took the information seriously and immediately started to investigate the issue.

What have you done during the year to act on the situation?

A lot. Immediately after the report, we decided to let an external partner conduct an independent impact assessment into Vale's Onça Puma mine in Brazil. This assessment was completed during 2021. We also developed and described a process for ESG incidents, to make sure that reported cases are handled with appropriate attention and actions.

On top of that, we have enhanced our entire supplier monitoring. We have reviewed our Supplier Requirements and set a stronger focus on social responsibility and human rights, including the UN Guiding Principles on Business and Human Rights. We integrated sustainability as a criterion in our supplier evaluation and we started to map our supply chain beyond our direct contract partners.

We also conducted the human rights risk assessment in accordance with the UNGP, together with experts from Deloitte. The assessment focused not only on Outokumpu's own activities, but also on the risks within our supply chain.

What has the biggest change been?

Maybe the biggest change has been that Outokumpu has now partnered with supplier sustainability platform EcoVadis to evaluate the sustainability performance of our raw material suppliers on a regular basis. The results of the ratings are considered in our supplier scorecards, together with procurement performance, quality, logistics and technology. They are also an input to our on-site audit planning – with easing travel restrictions we are going to pick up our activities in this area.

Might there be more cases like Vale?

We do have other suppliers in high-risk countries in our supply chain. Therefore, we started last year a human rights impact assessment program to investigate our raw material suppliers in high-risk countries. We started with Brazil and now continue with Guatemala, with other countries to follow. We will be supported by the external experts that supported us in Brazil.

Have you visited Vale and the mine?

Yes, we have been in dialogue with Vale and affected people. We have met with Vale, the Xikrin indigenous people and several institutions in Brazil in December 2021, together with an independent expert. We discussed with the Xikrin indigenous people to hear their opinions on the process and learn about their lives and their problems. We also got very positive feedback and were invited back. Actually, we were told that it was the first time that a European customer showed up there and showed interest in the indigenous people directly.

What is the purpose of these visits?

As a customer, it is our responsibility to ensure that our suppliers have effective processes and actions in place to protect the environment and human rights. If the assessment comes to the conclusion that the processes and/or mitigation actions of a supplier can be improved, we seek to agree on these improvements together with the supplier. To make sure that the actions are really effective, we may define indicators that can be monitored over time, and we ask our supplier to communicate those indicators to us.

What remains to be done?

Monitoring suppliers is not a project but continuous work for us. In 2022, we will continue to increase engagement with our suppliers, and I am happy to announce that my team will be strengthened with additional resources. Together we will for example finalize the review of our onboarding process and put a higher emphasis on human rights due diligence. We have also started an human rights impact assessment program for suppliers in high risk countries together with the same independent expert that supported us with the investigation in Brazil. We will for example visit one supplier in Guatemala, where we are also going to investigate the potential impacts of the company on indigenous communities and other external stakeholders.

Proactive focus on safety

At Outokumpu, we operate safely always. We believe that continuous strong safety performance correlates with improved quality and operational efficiency. Everyone at Outokumpu has the right to a safe and healthy working environment.

Oihana Ramos started as Outokumpu's Head of Health and Safety at the end of 2021. "My experience in safety is originating from the mills, working side-by-side with operations and maintenance. Safety has always been the main priority also in my previous roles."

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.

Proactive safety measures

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.

Our safety network which comprises of 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.

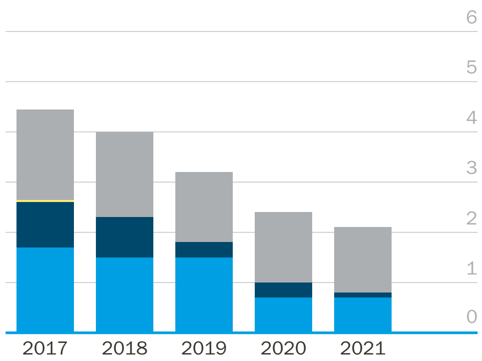
Quarterly safety themes

In late 2020, quarterly safety themes were launched at Outokumpu. Each quarter, a specific theme is selected, highlighting the most important issues in safety. The quarterly themes reflect the areas in safety where we have the most room for improvement. These focus areas have been determined based on analysis of previous accidents and their causes.

By setting out improvement objectives for the specific themes each quarter, sites can review their practices and share findings and best practices with other sites. Sites are also encouraged to come up with ways to involve employees to highlight the importance of each theme and cascaded key learnings throughout the organization.

In 2021, the first quarter safety theme was hand safety, as hands and fingers continue to be the body parts with most injuries. The theme for second and third quarter focused on contractor control. The theme was introduced over the summer maintenance period where outputs of the theme could be implemented and measured to gain maximum effect. The safety theme for the fourth quarter focused on reviewing our acid handling procedures to incorporate all acids and the hazards and

Work-related injuries*



* Per 1 million working hours.

risks associated with managing dangerous substances.

Improved safety despite the COVID-19 pandemic

In the start of the pandemic in 2020, Outokumpu took several rigorous safety measures on the Group level to mitigate the negative effects of the COVID-19 pandemic on people and operations. The implemented measures were proven to be effective with very limited impact on our operations while maintaining the health and safety of our employees.

During 2021 and with the roll-out of the vaccinations, the focus in the management of the pandemic was transferred from the Group-level crisis management team to local crisis teams who implement site-specific rules and instructions according to the regulations and recommendations of local authorities.

In Germany and the Calvert site in the US, Outokumpu established vaccination centers for our employees during 2021. In Calvert, the center offered vaccines also to the neighboring communities in the rural area where access to vaccines was limited.

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 2.0 against the target of <2.2 (2.4). Group LTIFR (lost time injuries per million working hours) was 1.3 against the target of <1.2 (1.4).

The rate of all work-related accidents (total recordable injuries and first aid treated injuries per million working hours) was 11.9 (13.7).

Proactive safety action frequency was 8,185 (5,353). This includes reported hazard observations, SBOs, and other preventive safety actions per million working hours.

Health and wellbeing

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 (2020: 0). The total absentee rate was 3.1% (3.3%).

Work-related injuries by region, accident and employee type

	Group	BA Europe	BA Americas	BA Long Products	BA Ferrochrome	Employees	Contractors
TRIFR [1]	2.0	2.2	1.8	1.1	3.3	2.0	2.3
LTIFR [2]	1.3	1.5	1.0	0.0	2.2	1.2	1.3
Total recordable injuries [3]	45	26	11	2	6	33	12
Fatalities	0	0	0	0	0	0	0
Lost time injuries	28	18	6	0	4	21	7
Restricted work injuries	2	1	0	0	1	0	2
Medically treated injuries	15	7	5	2	1	12	3

[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.

Hand safety in focus

Quarterly safety themes for 2021 were launched with the theme of hand safety, as hands and fingers continue to be the body parts with most injuries. For example in 2020, over half of all recordable accidents involved injuries to wrists, hands or fingers.

As a part of the theme in 2021, all sites implemented the Hands Are Not Tools program. For example, in Krefeld, Germany, the program was started by identifying the ten most hazardous manual tasks that could lead to hand injury. For these tasks controls were put in place immediately to lower the risk, while technical solutions were planned to replace manual tasks with automated processes to eliminate the risks completely.

As a part of the safety theme, other sites came up with their own safety innovation as well. In Tornio, Finland, operators produced their own safety videos demonstrating how to prevent hand injuries with new tools. In Calvert, the US, team members were encouraged to focus on hand safety at home too and discuss the theme with their families. To support the discussions at home, a handout for children to fill in could be printed. Top 15 submissions were selected and given gift cards as a prize.

Building the best work environment

2021 was heavily impacted by the continuing pandemic and the strong rebound in demand. We are looking ahead to how we can develop the company going forward and promote diversity, equity, and inclusion. We want everybody to feel comfortable and engaged to work at Outokumpu.

Even during the pandemic, approximately 70% of our team members have continued to work at our mills. Working in a closed bubble has become routine.

A year of closed bubbles and remote work

During the pandemic our priority has been to ensure the health and safety of our team members. Countless actions have been taken, starting with global and local guidelines on social distancing, hygiene and cleaning, travel bans as well as limiting face-to-face meetings and visitor access.

Thanks to the continuous effort and commitment of our operators – working in several shifts 24/7 – our mills have been running at high capacity throughout the year, and we have been able to deliver top-quality stainless steel to our customers. Working in a closed bubble and restricting social contacts has become routine at our mills, even with a heavier workload and very strong demand for stainless steel – approximately 70% of our team members have worked continuously at the mills.

To protect our employees and business and avoid further infections, we have encouraged remote work whenever possible. Towards the end of the year, we prepared for a hybrid working model, which aims for a balanced combination of office work and remote work and emphasizes trust and flexibility.

The company's premises are the primary place of work for all personnel. However, employees, whose tasks are suitable for remote work will have the possibility to work remotely. We want to be as flexible as possible but also maintain the good elements of working together, acknowledging that face-to-face work in the office is important for workplace well-being, team spirit, collaboration and connecting to company and its priorities. We have created a common framework for remote work for our operations; however, as the situation varies by country, local guidelines are to be followed.

Building more dialog during the pandemic

To map the personnel's views on future steps for the company, internal webinar discussions were hosted by members of the Outokumpu Leadership Team in the second quarter. Altogether 19 company-wide virtual sessions were arranged in English, Finnish, Swedish, and German. These Our Way Forward webinars were very well received, attracting over 1,000 team members to discuss the progress of our strategy as well as market development. Team members were also able to share their views on how work should be organized in practice after the pandemic when we take the company forward together. We started the webinars with team members working in the office. The plan

Bringing our Ways of Working to live

Amidst the COVID-19 restrictions, at our sites we have engaged our teams to bring our Ways of Working to live through team disucssions. In Degerfors, Sweden, kicking off our Ways of Working in practice included conducting a series of workshops with teams in shifts, where we asked: "What do our Ways of Working mean for your own team?"

During the workshops, all six elements of Ways of Working were communicated, and participants were encouraged to work on examples from their daily work.

"We have had good initial discussions with operators. The workshop is a good opportunity for employees to reflect on what Ways of Working mean for them. The participants have been active and contributed to the discussion," said **Albin Karlsson**, who heads the team at the cutting lines.

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.

is to continue staff meetings at the production facilities as the pandemic eases.

Embedding Ways of Working into daily work

Our Ways of Working steer our journey toward our vision of being our customer's first choice in sustainable stainless steel. We have outlined the Outokumpu Ways of Working to clarify and define the way we need to work together.

To embed the Outokumpu Ways of Working into our daily work, our teams have been empowered to start discussions on what the Ways of Working mean in our every-day business and to observe how we conduct ourselves in relation to these six fundamental elements. By creating a joint understanding of how we work together, and especially recognizing behavior supporting our Ways of Working, we are better equipped to evaluate necessary areas of improvement.

For example, in relation to being a trusted partner, special attention was paid to compliance in line with the launch of our renewed Code of Conduct. To raise knowledge and awareness of ethics and compliance topics and to start discussions on ethical dilemmas that we might face during our daily activities, we introduced ethics and compliance-related case scenarios that managers can go through and discuss with their teams. These case scenarios covered, for instance, sustainable business practices and the importance of knowing our business partners.

Going forward, our teams will work together to identify improvement areas and recognize successes. By emphasizing the significance of changing conducts and behaviors in relation to the productivity and well-being of team members, we are encouraging our team leads to recognize also small changes, ideas, and actions to improve the alignment in our Ways of Working.

Long-term development in organizational health

Our global employee survey Organizational Health Index (OHI) was conducted in September–October 2021. The OHI survey is an important part of Outokumpu's development towards a truly high-performing organization, and we will continue the work to improve our results in organizational health. Moreover, these regular surveys support our Ways of Working by creating a common understanding concerning our consistency in our daily behaviors and actions.

Our employees' thoughts and feedback are important in creating our future together, as our ambition is to build the best work environment for all of us at Outokumpu. Our world-class participation rate – even during the pandemic – demonstrates the strong engagement of our team members with the company. With a response rate of 86% and over 19,000 open-ended answers, the survey makes visible our employees' views all over the world and provides a comprehensive picture of the company to develop both organizational health and performance.

The overall company score in the survey was 68. After two exceptional years, we consider the overall result positive, although slightly weaker than in 2019. Looking further back, we can see great improvement in our organizational health, as our index score started at 50 in 2016. With a score of 68 in 2021, we are still in the second quartile against all industry benchmarks.

However, across our sites, business areas, functions and locations, the differences in the results have increased. The result in the business area Europe was slightly weaker than in 2019, and also in the business areas Ferrochrome and Long Products the results decreased, whereas in the Americas both response rate and the result improved. Group functions' results are substantially better compared to the site results.

The OHI survey encourages us towards long-term development and addresses underlying issues which must be understood before shifts in behavior and culture can be realized to drive organizational health. Even small changes in mindset or behavior can have a great impact and they are needed to improve our organizational health: everyone's input is necessary.

To support our teams in their discussions regarding the results of the OHI survey, we have created a new online game. When discussing the results and defining the necessary development actions, we stress that change is not a top-down exercise. Organizational health improves efficiently and sustainably when you drive it from top to bottom, bottom to top and side to side.

As before, with the help of the survey results we will identify our strengths and development areas. To drive improvement, a number of initiatives will take place according to the local areas which need development. As a whole, the OHI survey of 2021 provides a baseline for future development and, based on the survey findings, we will develop our people strategy for the coming years.

Promoting diversity, equity, and inclusion

Our new sustainability strategy launched in May takes us further with our environmental, social, and governance (ESG) foundation. Sustainability is integral to our strategy, including global activities on diversity, equity, and inclusion. During 2021, we prepared activities for the following years to promote diversity, equity, and inclusion within the Group at all levels globally.

We take pride in the diversity of our team, which is made up of people living across several continents and of many different nationalities, cultures and backgrounds, religions, genders, sexual orientation, and age groups.

For example, in the Americas we have established a Diversity, Equity, and Inclusion initiative to ensure our team actively reflects diversity and to provide a work environment that promotes equality and inclusion. The initiative is led by the Americas Management Team. The aim is to attract and retain the best talent through growth and development while yielding positive results in the organization's success measures. To increase transparency, we share the demographics for our recruiting efforts with our Team Member Networking Groups.

In 2022, to support creation of a work environment that allows all team members to contribute and develop, we will conduct a global inclusion survey and create awareness of the topic throughout the organization. We want all team members to feel welcome and that they are equally heard and have equal opportunities. We believe that by making this company as diverse as possible, we encourage different points of view, different talent, and benefit from different life experiences, thus making us a much stronger organization.

Improving leadership

We believe it is essential that leaders are equipped to perform at the top level in their role. To make this possible, we are improving our leadership by implementing the Leadership Pipeline program. Our Step-Change in Leadership Excellence program develops leaders at all levels, bringing clarity to the expectations of the role and pushing accountability forward in the organization in a coherent way.

During the Leadership Excellence program leaders practice how they can create value in leadership roles and what the main responsi-

Strengthening marginalized voices

To shed light on underrepresented groups and provide a positive platform to ensure these underrepresented voices are amplified we have implemented a Diversity, Equity, and Inclusion initiative in the Americas.

The goal of the initiative is to ensure that our team actively reflects the diversity in the communities we serve and offer a work environment that promotes equality and inclusion. To provide an outlet for strengthening marginalized voices, networking groups were created to focus on African American, Latin and Hispanic, and female team members. The groups welcome all employees who are passionate about the cause, regardless of their ethnicity and gender. Together the groups work toward the common goal of engaging and empowering team members to use their voices in a proactive way.

bilities are in leading people, whether they are leading other individuals, other leaders, or a function. Empowerment is linked with leadership development activities, incorporating the idea of helping others to succeed and gaining results through others. This mindset generates more role clarity, well-being, and tools to focus on adding value.

Across our organization, management teams have participated in multiple Team Excellence workshops, in which the teams learn to function as a cohesive unit, with a clear team purpose and vision, aligned priorities and key deliverables in alignment with the company strategy. This Team Excellence program is part of our Step-Change in Leadership Excellence program, and it will be offered to teams also during 2022. So far, over 20 teams have participated in these Leadership Excellence workshops, supporting team improvement activities globally.

The associated Leading Leaders and Leading Others training modules enable individual leaders to complete the transition into the leadership role that needs to be executed to add the most value to their team and the organization. The Leadership Pipeline methodology is also implemented in our License to Lead shift-leader program, which is targeted at first-line managers in operations.

By investing in leadership development and strengthening our leadership capabilities, we can significantly impact our business performance and organizational health. To assess the effects of the extensive leadership training, we plan to conduct an external assessment on impact measurement.

Developing our talents and future leaders

The key target of our talent management is to ensure we remain competitive and flexible in how we promote and develop our future leaders. The ambition of this initiative is to ensure we have enough successors within Outokumpu. We have established several processes and programs to build and future-proof our talent and succession pipeline and to secure our competitive advantage in the future.

Our talent management team has defined the roadmap for the coming years, and our more rigorous talent management process aims at ensuring that we attract and hire, develop, and deploy graduates who have the potential to go beyond the role that they are carrying out today, and who have the drive to grow internationally. In our international and process-driven organization, key roles require international and cross-functional experience accompanied by excellent leadership skills.

We have established extensive programs and development opportunities to grow our talents and different talent pools: young talents, those with high potential, and top leadership. For example, our global Form your Future program sets the basis for international career growth at Outokumpu, whereas our International Talent Project initiative provides young talents with an opportunity to work on important projects in cross-functional and global teams along with a possibility to grow their networks and understanding of the company and stainless steel across borders and functions.

During 2021, we have continued to improve and harmonize our HR processes to bring about efficiency and a better end-user experience for managers and employees. As part of this process, a harmonized recruitment process was launched in Europe & APAC at the beginning of the year. The process was designed to help us work more efficiently, increase productivity, and provide a better experience for our recruiting managers and candidates. The harmonization translates also into process improvements and greater clarity.

Building capabilities

Despite the on-going COVID-19 restrictions and limited options for arranging face-to-face training sessions, we continued with training and coaching efforts to further increase the skills sets of our team members to enable the best execution of our goals. Again, we were able to maintain a fair number of training and development measures despite the social distancing restrictions and travel guidelines.

Building on the experience, training, and materials from the previous year, we supported our own subject matter experts and managers by enhancing their virtual training skills. We have also recognized the need to support teams and team members working and meeting remotely, especially those in the matrix organization. The provision of tools and support will carry on into 2022.

During the year we continued to train and certify colleagues across our sites as Lean Six Sigma Green Belts and Black Belts to support and facilitate continuous improvement in our operations. For example, in Terneuzen, the Netherlands, we applied lean and agile methods and practices in Green Belt training,

Growing talent

International Talent Project initiative provides our young talents with an opportunity to demonstrate their strengths and capabilities, practice working in cross-functional and international teams, and grow their networks.

All talents are matched with a challenging business project outside of their own function. Taking talents out of their comfort zone and letting them work in areas new to them allows to gain new perspectives and grow their experience.

The teams worked passionately, and from start to finish virtually, on their projects, participating also in project management training. In October, participants finally met face-to-face and shared the outcomes of their projects with other participants, project leads, and senior leader sponsors. All teams received good feedback and the project outcomes will be implemented in respective functional areas.

E-bikes offered to employees in Finland

The well-being of our employees and protection of the environment are important for Outokumpu. When both aspects can be combined, we don't hesitate to take action.

During 2021, Outokumpu decided to support employees in Finland to acquire bicycles as an employment benefit, which is supported by the government. Specifically, e-bikes were made available to order for employees. The bicycle can be used for commuting between home and work but in the spare time too.

The acquisition of bicycles also supports Outokumpu's sustainability goals and our commitment to reducing carbon emissions.

Cycling and outdoor activities refresh the mind and increase endurance both at work and in leisure time. Commuting helps to achieve the minimum amount of health exercise recommended and reduces daily sitting. It also reduces CO_2 emissions when replacing commuting by car.

starting with online sessions for theory training as well as coaching sessions.

As our Code of Conduct was revised in 2021, our employees were trained on the topic during the year. To encourage our team members to improve their project management skills, we offer several options to get acquainted with methods and tools for running projects and managing change successfully. We are also piloting a program for young and internationally-oriented production workers, and we are building a global onboarding program for new joiners.

In Sweden, we trained approximately 1,400 people in relation to our digital transformation project Chorus, including the ERP renewal. The training sessions on the tools and processes, for instance, were completely virtual, and the attendance rate was over 90%.

In 2021, a total 91% of Outokumpu employees participated in training sessions and programs. The amount of training days continued to be lower compared to pre-pandemic levels, despite the significant increase in online training, but in 2021 we saw an increase compared to 2020. During the year, the overall number of training and development days amounted to 12,301 (2020: 9,978) and 98,411 hours (2020: 79,825). Average training hours per employee was 10.5.

Setting and achieving targets

The core of our performance management is the My Performance Commitment process (MPC). The systematic MPC process ensures the setting and achieving of individual performance and behavior targets aligned with

Our people by region

	2021	2020	2019
Finland	**2,394**	2,517	2,502
Germany	**2,043**	2,326	2,555
Sweden	**1,794**	1,888	1,975
The United Kingdom	**469**	502	560
Other Europe	**750**	747	727
Europe	**7,450**	7,980	8,319
The United States	**1,011**	1,010	1,064
Mexico	**804**	786	859
South America	**80**	84	87
Americas	**1,895**	1,880	2,010
Asia/Rest of the world	**50**	55	61
Group total	**9,395**	9,915	10,390

This table presents the number of personnel, while elsewhere in the report we use full-time equivalent personnel.

the company strategy. It also provides tools to discuss development needs and to ensure managers and employees understand their tasks and how they contribute to business targets and the strategy.

In 2022, we will incorporate our Ways of Working and the Leadership Pipeline methodology in the behavior evaluation of My Performance Commitment development discussions to ensure consistent behavior and provide tools for managers to assess performance and development as well as to ensure high-quality and consistent leadership.

The My Performance Commitment process is documented in our common HR platform. In 2021, 98% of employees in applicable countries had a regular performance development discussion with their respective 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.

Outokumpu's remuneration principles and framework was largely unchanged from the year before: incentive plans remained the same. Salary budgets were set at very moderate market-based levels observing the overall market situation. For the excellent work and stretch during the year of 2021 we are rewarding all our employees with an extra payment along local agreements. Our long-term incentive programs continue to focus on emphasizing shareholder value creation and ownership culture and setting a performance culture through the Group and business area-level target setting. The commitment to our strategy is reflected in the incentive programs within Outokumpu. In 2022, we will introduce sustainability targets into our incentive plans.

Simplified and delayered organization

As part of cultivating a lean and agile organization, de-layering and reorganization of the organization continued in 2021. We have built a simplified and flat structure with clear roles and responsibilities, thus creating a high level of individual accountability. We aim to have an organization with people and teams who are capable of reacting quickly and adapting to the changes in the market environment.

In 2021, the number of employees decreased by 506 globally, after Outokumpu completed employee negotiation processes at the end of 2020. The target was to create cost savings by restructuring and reducing the total employee headcount by up to approximately 1,000 mostly by the end of 2021. As a result of the negotiations, Outokumpu reduced the employee headcount by 250 in Finland, 230 in Germany, and 170 in Sweden, with further personnel reductions in the company's European and Americas based operations. The total targeted employee headcount reduction of 1,000 was almost reached by the end of 2021, with 90% of the measures completed. Outokumpu's aim is a full-time equivalent number of personnel below 9,000 during 2022.

After personnel negotiations, we support our employees in finding new roles where possible. People can receive transition assistance, which takes the form of job search, CV writing, interview skills and options for training.

To ensure a greater understanding of the company and the competitive situation in which we operate we are committed to informing and consulting our employees and their representatives. In Europe, continuous collaboration with the personnel takes place in a joint consultative body, Personnel Forum, which is an information channel between our personnel and corporate management. Personnel Forum appoints the Group Working Committee, which is responsible for the cooperation between management and employees. In the committee, eight members represent employees and four represent the management. Normally, Personnel Forum meets once a year. However, in 2021, we were not able to arrange Outokumpu Personnel Forum due to the pandemic. Additionally, the Group Working Committee was heavily affected by COVID-19, and the committee was able to convene face-to-face only once, in November 2021. The other three official meetings were held virtually, and these were arranged in February, May, and August.

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 2021, 78% of the Group's employees were covered by collective agreements (2020: 79%). In total, 16 days in 2021 were lost due to strikes (2020: 2,496).

Meet the third stainless generation

The manufacturing of stainless steel is a great profession. Some of our team members have this skill in their bloodline.

Samuel Öfverberg worked as a summer trainee on the slitting lines at our Tornio site. In the same cold rolling plant where his father works, and his maternal grandfather before them, while his mother works in our Finance team. "On a railroad a stone's throw away from our home I've seen coils since I was a kid but now it's been great to see for myself how stainless steel is produced – and how my family has earned our bread for decades. It is fascinating!"

Toni Niskala spent the summer of his life at our cold rolling plant in Tornio driving a forklift to load containers for the shipping of coils and sheets to our customers. His grandfather worked for decades in the cold rolling plant in maintenance – also the specialty of Toni's father, who works on the rolling, annealing and pickling line 5. "It's been nice to see that I can handle a task that requires great precision, whether my shift is at night or day. Also, my workmates are the best."

Stakeholder engagement

Our biggest impact in the world is stainless steel that we produce and our expertise in it – a sustainable product with a long service life. We recognize that our operations have an impact both on a local level and to a wider society.

Before focusing on stainless steel, Outokumpu had several mines. In 2021 we continued to monitor our own mine sites, taking samples according to our obligations as well as on a voluntary basis. Our team and local authorities visit here one of the old mines in Hammaslahti, Finland.

We are a reliable and trusted partner towards all our stakeholders, our customers, employees, investors, suppliers and the communities we operate in. Maintaining a dialogue with different stakeholder groups is an important aspect in Outokumpu's vision to be the first choice in sustainable stainless steel and for understanding what our stakeholders expect from us. Outokumpu conducts regularly materiality analyses to keep up-to-date on our stakeholders' expectations, and the latest one was conducted in 2021, and continues regular dialogue with its various stakeholders.

Read more about our suppliers in the supply chain section of this report.

Customers

Outokumpu is known in the market for the high quality of its products as corrosion resistance, the widest product portfolio on the market, and our technical expertise in stainless steel. Outokumpu has a strong customer base spread across the globe and balanced over a range of industries. Together with our customers, we find new application areas where stainless can make a positive impact. Our customers construct buildings and build infrastructure, produce energy, and manufacture appliances and cars, for instance. Most of our customers are located in areas where we have our own production in Europe and in the Americas. We have also a global sales and service center network covering all the main continents. Our web shop serves our customers in Germany, Italy and their neighboring countries.

Customers are more and more interested in environmental aspects and carbon footprint of their products and their entire value chain. Outokumpu has the lowest carbon footprint and highest recycled content in the industry. Our customers save our planet from 10,000,000 tonnes of carbon dioxide by using our stainless steel – every year. All our products have independently certified environmental product declarations so that our

Calvert adopted a stretch of highway

Sustainability is at the core of all our operations, and in Calvert this goes beyond the mill. Taking care of our local community is a big part of who we are at Outokumpu. Our Americas team has started two new programs that allows team members to help take care of our local environment to keep it clean and litter-free but also enhance the beauty of Alabama.

Outokumpu has partnered with Alabama PALS to adopt a mile of the stretch of Highway 43 leading to our mill, and each month team members volunteer to clean the highway of any trash and debris. A new on-site recycling program began this year to encourage recycling everyday items like plastics, paper and aluminum.

customers can calculate the carbon footprint of their products.

Outokumpu collects feedback from its customers as a part of sales process. Our customers are mostly satisfied or very satisfied with their business relationship with us and considered a quick reaction to requests, understanding customer needs and easy reach our strength. Our one improvement areas is delivery performance which we have not been able to improve during 2021 with the market rebounding from the COVID-19 lows. In 2021, customer cooperation continued mainly with new remote forms, but towards the end of the year we were also able to resume some travelling and face-to-face meetings with customers when allowed by the local pandemic situation and even exhibit in a fair for the first time in two years.

Communities

Outokumpu's production sites are often located in relatively small towns, so we are a significant member of those communities and, in many cases, one of the few big private-sector employers in the area. We recognize that our decisions might have a major impact on communities, our personnel and local suppliers and service providers.

Our sites have regular discussions with local community representatives on employment, environment, energy, or sponsoring. In addition to the community officials and representatives, we maintain continuous cooperation with local schools and universities, NGOs, our neighbors, and other companies. Ongoing permit processes or other environmental issues are discussed with local stakeholders. We organize open-door events at our production sites for neighbors. Based on feedback and participation in the recent years, these events have been successes. Our mills received a lot of good and constructive feedback as well as some helpful ideas on how to reduce environmental impacts on the surrounding communities. In 2021, cooperation continued mainly remotely because of the pandemic to safeguard both our employees and the communities we operate in.

Based on the dialogue with neighboring communities and discussions with authorities in connection with environmental permit processes, no significant negative impacts on local communities have been identified.

Many of our production sites have long and interesting histories: some of our sites in Finland, Germany, Sweden and the UK have been in use by the metal industry and integral parts of their local communities for decades or even centuries already. For example, in Avesta, Sweden, the renovation of our former, centuries-old production site Koppardalen, received excellent feedback for preserving local cultural history.

In the past, Outokumpu has operated mines both in Finland and elsewhere. At the beginning of the 2000s, the company decided to focus on stainless steel. Currently, Outokumpu operates only one mine, the Kemi chrome mine, which is an integral part of our stainless steel production. In 2021, Outokumpu continued to monitor its old mine sites, both those where the company still has obligations and those where they have ended. Outokumpu visited most of the company's old mines at least once, taking samples according to the obligations as well as on a voluntary basis. In 2021, two minor environmental permit breaches were observed: in Hammaslahti annual average of leachate pH value and in Kotalahti annual average of leachate iron concentration didn't meet the environmental permits' requirements.

Information on old mines

List of Outokumpu's operating sites

Non-governmental organizations

Non-governmental organizations or NGOs are important stakeholder groups for Outokumpu as they can provide an external view on how large companies like Outokumpu are impacting the nature and society and what are the expectations towards us. This type of dialogue has been very fruitful to bring understanding to both sides of the table on the urgency, actions and policies around climate change. One recurring topic are ongoing permit processes and other environmental issues which are continuously discussed with environmental NGOs.

In February 2021, a Finnish NGO Finnwatch published a report which critically assessed Outokumpu's supply chain sustainability monitoring and the company's purchasing. For us, the Finnwatch report was an important reminder of the importance of responsibility throughout our supply chain, and we continued dialogue with Finnwatch throughout the year. During 2021, we took countless actions to further develop the monitoring of the suppliers and to increase the transparency of its sourcing. We partnered with supplier sustainability platform EcoVadis to evaluate

Environmental bridge

The city of Södertälje in Sweden needed to replace a wooden bridge that had reached its end of life – after only 20 years of use. The city now wanted a bridge with long service life and minimal maintenance, as closing the highway for repairs is expensive.

Stål & Rörmontage, a Swedish company that works closely with Outokumpu, has developed an interesting concept called the Environmental Bridge – essentially, a maintenance-free bridge with a lifetime of well over 100 years. They have now installed six of these bridges in Sweden, including the one in Södertälje made of Outokumpu's Forta LDX 2101 duplex stainless steel.

"Miljöbron, as we call the Environmental Bridge in Swedish," says **Lars-Åke Persson**, Marketing Director at SRM, "offers very substantial benefits in terms of both the environment and public finances. To have a bridge that lasts much longer than traditional structures made of either carbon steel or wood, and has lower maintenance costs and lower environmental impact in terms of painting and coatings, is clearly beneficial to society."

the sustainability performance of our raw material suppliers on a regular basis, updated our Supplier Requirements and Code of Conduct, and reviewed our policies, terms and conditions and actions according to the UN Guiding Principles on Business and Human Rights. Outokumpu also set up its own advisory council on environmental, social and governance topics.

Associations, memberships and public affairs

Outokumpu is a member of international organizations and confederations, including International Chamber of Commerce (ICC), Eurofer, International Chromium Development Association (ICDA), EUROALLIAGES and EUROSLAG and is actively involved in and supports their work. Outokumpu provides relevant information to decision-makers and experts relating to 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 Germany, Sweden, Finland, France, Italy, the Netherlands, the UK, the US and Australia. These cooperation organizations advance industry views and contribute to national legislation. Outokumpu is 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.

Our public affairs practice is to communicate via industrial associations like Eurofer towards governing bodies and regulators. In these organizations, Outokumpu participates in different working groups whose aim is to provide expertise to help decision-makers. In these forums, members share best practices and obtain benchmark data relating to, among other things, the environment, R&D, product life cycles, product and chemical safety, and occupational safety. Members also contribute their own data for use in official industry or authority reports, such as ICDA's safety and sustainability reporting. In 2021, Outokumpu's membership fees and other contributions to the associations amounted to EUR 2.0 million.

Sponsoring and support

In sponsorships, Outokumpu prioritizes connections to stainless steel, sustainability, talent, and education. 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. Local sponsorship follows the same guidelines, and locally we have sponsored for instance artworks by donating stainless steel, significant local projects, and sports associations. Outokumpu does not take part in or otherwise support political activities, whether they are local or national. In 2021, Outokumpu spent approximately 180,000 euros in sponsoring.

Outokumpu supports research related to its field of industry and maintains close cooperation with educational institutes. Apprenticeships have been offered to local colleges and student placements have been made available in the form of one-year programs, and schoolchildren and local students have been introduced to our operations.

Outokumpu has also been among the founders of a number of national technology, research and educational funds. These funds support and promote university-level research and teaching and business opportunities. Examples of these type of funds are the Technology Industries of Finland Centennial Foundation and the Fund for the Association of Finnish Steel and Metal Producers.

Investors and shareholders

Outokumpu's share is a so-called people's share in Finland, with households and private persons owning more than a quarter of the shares outstanding. The largest shareholder Solidium Oy, an investment company owned by the Finnish state, reduced its ownership in Outokumpu during the year and owned at the year-end 15.5% of the shares outstanding. The share of international institutions increased to 31.7% in 2021.

In May, Outokumpu completed a private placement of 40,500,000 new shares to institutional investors and raised EUR 209 million. Deleveraging and strengthening the balance sheet are the key targets of Outokumpu's new strategy, and the company used the proceeds of the directed share issue to prepay loans from financial institutions. The directed share issue was completed to strengthen our balance sheet and to reduce our net debt. The reduction of net debt, prepayment of the more expensive loans, and improved credit rating significantly decreased Outokumpu's financial costs, which benefits all our shareholders.

Outokumpu continued the regular and active communication with the investors and analysts throughout 2021. One of the key topics we discussed with the investor community has been the strong COVID-19

Principal shareholders on December 31, 2021

	Shares	%
Solidium Oy	70,793,208	15.50
Varma Mutual Pension Insurance Company	17,133,403	3.75
Ilmarinen Mutual Pension Insurance Company	12,010,453	2.63
The Social Insurance Institution of Finland	9,298,652	2.04
Elo Mutual Pension Insurance Company	5,112,988	1.12
State Pension Fund	4,400,000	0.96
Mandatum Life	3,940,232	0.86
Danske Invest Finnish Equity Fund	3,610,000	0.79
Säästöpankki Kotimaa – Equity Fund	3,565,110	0.78
Nordea Life Assurance Finland Ltd.	2,892,912	0.63
Equity Fund Evli Finland Select	2,150,000	0.47
Säästöpankki Small Firms – Equity Fund	2,096,815	0.46
Säästöpankki Interest Plus – Equity Fund	2,087,784	0.46
Helander Hannu-Jukka	1,984,470	0.43
Sinituote Oy	1,643,560	0.36
OP Life Assurance Company Ltd.	1,467,550	0.32
OP-Finland Small Firms Fund	1,447,691	0.32
Nordea Bank Abp	1,307,556	0.29
Nordea Pro Finland Fund	1,283,306	0.28
Baan Roelof Ijsbrand	1,237,567	0.27
	149,463,257	**32.72**
Nominee accounts held by custodian banks	143,428,839	31.39
Treasury Shares	4,302,471	0.94
Other Shareholders	159,679,881	34.95
Total	**456,874,448**	**100.00**

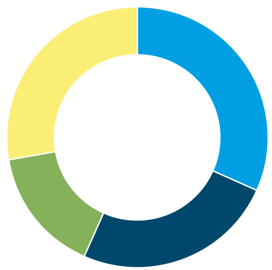
rebound and exceptionally favourable market environment, including the strong demand for stainless steel and increased prices. Other key topics in the discussions have been the progress of our strategy execution, directed share issue completed in May 2021, topics related to the balance sheet, capital allocation, Asian imports and trade defense measures.

Due to the ongoing and prolonged COVID-19 pandemic, almost all meetings and road shows were virtual, as was the Capital Markets update held in May 2021. Outokumpu also held its Annual General Meeting in its headquarters in Helsinki, Finland in March under special arrangements. During the year, Outokumpu arranged eight virtual roadshows in Europe and in the US and met investors at three virtual industry seminars and conferences. In total, 72 one-on-one meetings and conference calls were held with our investors during the year.

Outokumpu's shares are listed on the Nasdaq Helsinki Large Cap list under the trading code OUT1V and incorporated into the Finnish book-entry securities system. In addition to Nasdaq Helsinki, Outokumpu's shares are also traded on various alternative platforms.

The total share capital was EUR 311 million at the end of the year 2021. All shares in Outokumpu carry equal voting and dividend rights. During 2021, the total number of shares outstanding increased by 40,500,000 as a

Shareholders by group on December 31, 2021



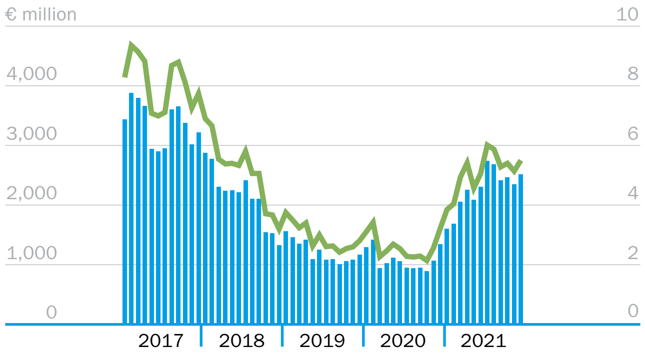
[1] Solidium Oy is wholly owned by the Finnish state

result of the directed share issue completed in May. On December 31, 2021 the total number of Outokumpu shares was 456,874,448, and Outokumpu held then 4,302,471 of treasury shares (Dec 31, 2020: 4,372,236 shares).

In 2021, Outokumpu's share price was EUR 6.01 at its highest and EUR 3.36 at its lowest (2020: EUR 4.44 at its highest and EUR 2.08 at its lowest). The share price closed at EUR 5.50 at the end of the year, so it increased 70.8% from the closing price of 3.22 at the end of 2020. The market capitalization was EUR 2,513 million at the end of the year, compared to the EUR 1,341 million in the end of the previous year.

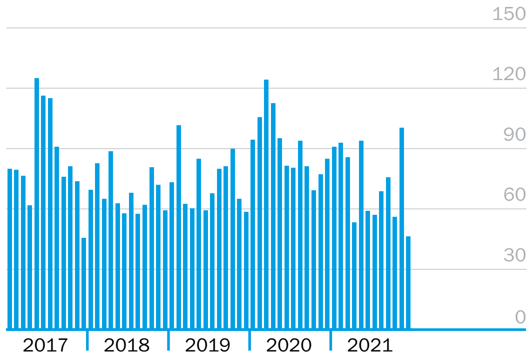
During 2021, the average daily trading volume in Outokumpu shares on Nasdaq Helsinki was 3.5 million shares. 880 million Outokumpu shares were traded in total on Nasdaq Helsinki during the year, and they represented a value of EUR 8,734 million (2020: 1,101 million shares with a value of EUR 5,325 million).

Market capitalization and share price development



Source: Nasdaq

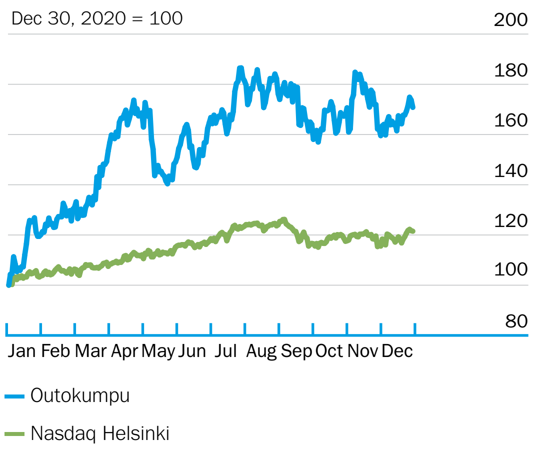
Monthly trading volume, million shares



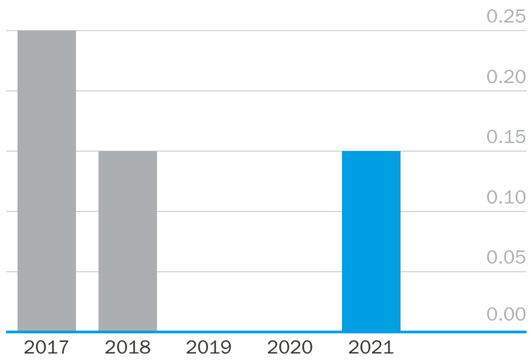
Includes trading on Nasdaq Helsinki.

Source: Nasdaq

Outokumpu share price development in 2021, %



Dividend/share, €



The dividend for 2021 is a proposal by the Board of Directors.

Research and development

R&D, as part of the Technology and Group Sustainability team, ensures that our partners inside and outside of Outokumpu receive exceptional value through leading technical expertise. Shaping the future by developing breakthrough innovations as well as enabling a sustainable future is part of the R&D mission.

Launch of R&D strategy

In 2021 a new R&D strategy was introduced, building on the Outokumpu strategy and Outokumpu Ways of Working. R&D Must Win Battles are "Sustainable production process technologies" and "Future products and customer applications", which are addressed with eight R&D programs. The R&D team continued working in the three R&D centers located in Avesta in Sweden, in Krefeld in Germany and in Tornio in Finland focusing on execution of the R&D programs. In 2021, Outokumpu's R&D expenditure totaled EUR 14 million, 0.2% of net sales (2020: EUR 21 million and 0.4%, 2019: EUR 17 million and 0.3%).

Sustainable production process technologies

In 2021 Outokumpu joined a three-year research program Towards Carbon Neutral Metals (TOCANEM) financed by Business Finland. The research program is an important step in Outokumpu's roadmap towards carbon neutrality. It enables Outokumpu to study and develop necessary technologies needed to reach ambitious climate targets and to support Outokumpu's industry leading position in sustainability. Within this program fundamental research necessary for implementing and developing technologies that will help Outokumpu to reduce CO_2 emission is ongoing. The utilization of BioCoke instead of fossil coke for FeCr production is one key topic, as well as optimized pickling processes to avoid or minimize use of hazardous hydrofluoric acid (HF). In order to accelerate our process development and to improve the process capabilities modeling tools are widely used.

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 lying on the Pro product family for demanding end-use and offering sustainable solutions for high customer satisfaction. To expand our product portfolio of high-alloy materials, Therma Alloy 800/800H and 800HT were developed to market launch. In order to develop stainless steel materials for cost efficient solid oxide cell technologies Outokumpu joined a three year research project with partners along the value chain and universities. The project is financed by Sweden's innovation agency Vinnova.

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 both national and international collaborative R&D projects and programs. For instance, Outokumpu is involved in European Partnership for Clean Steel – Low Carbon Steelmaking in Horizon Europe funding program.

On board! Towards carbon neutral metals

Outokumpu has joined a three-year research program, Towards Carbon Neutral Metals (TOCANEM) as part of a consortium of multiple metal industry companies and universities in Finland. The research program is an important step in Outokumpu's roadmap towards carbon neutrality.

Juha Erkkilä, Head of Sustainability at Outokumpu, says: "The program supports fundamental research necessary for implementing and developing technologies that will help Outokumpu to reduce CO_2 emission intensity across all direct and indirect scopes. Teaming up with a consortium will allow the use of the best research resources and provide access to technologies outside of our current capabilities."

The project is part of the implementation of national and EU level low-carbon roadmaps. In Finland, the largest CO_2 reduction potential in the industrial sector lies in metals production.

Ethics and compliance

Outokumpu is committed to conducting business with high integrity. Responsible and ethical business practices concern everyone at Outokumpu. To secure this commitment, Outokumpu has a group-wide ethics and compliance program in place. The program is a key tool in building a sustainable ethics and compliance culture and helping employees to comply with laws and regulations as well as internal rules and to make sound, ethical decisions as part of their daily work.

During 2021, the implementation of all elements of the ethics and compliance program continued efficiently in close co-operation with the leadership, business areas, and group functions. The roles and responsibilities of ethics and compliance governance bodies were reviewed and partly updated, which included extending the network of compliance contact persons and establishing a new global network to further drive the implementation of Outokumpu's data protection program. Furthermore, interaction with management teams and managers in business areas and group functions was emphasized through trainings and engaging communications.

Outokumpu's Code of Conduct is the core element of Outokumpu's ethics and compliance program, as it sets the standards for what is the right thing to do. That means acting honestly, responsibly, and in an ethical manner in everything we do. The revision of the Code of Conduct was finalized in 2021, and the emphasis was especially placed on Outokumpu's commitment to the UN Guiding Principles on Business and Human Rights. The revised Code of Conduct was launched in May 2021 with mandatory Code of Conduct eLearning for all Outokumpu employees. The eLearning was completed by 89% of Outokumpu's employees in 2021. In addition, engaging Code of Conduct-related webinars and other internal and external communications were made to various stakeholders.

Outokumpu adheres strictly to competition laws and regulations and is continuously putting significant efforts into this area. In 2021, multiple actions were taken to remind and educate employees about the importance of competition law rules. As part of this work, process improvement was made and documentation updated, various training events were held and communications concerning the competition law rules were made globally. The senior management of the company was closely involved in these activities, highlighting the importance of complying with competition laws and regulations as well as enhancing the company's policies on this topic.

During 2021, actions were also taken in the other identified key risk areas. Outokumpu has a Know Your Business Partner Instruction detailing the main principles and rules related to establishing and monitoring relationships with business partners and managing risks related to such parties. In 2021, specific trade compliance-related communications were delivered, and Know Your Business Partner eLearning was conducted again for all administrative employees. The eLearning achieved a completion rate of 100%. Third-party risks were further mitigated by process improvements and organizing training events on the topic of trade compliance for targeted groups. Further emphasis was also placed on data protection through process improvements, the update of documentation, and trainings. In addition, engaging communications on various topics regarding ethics and compliance, such as anti-corruption, were delivered throughout the year.

Ethics and compliance risks, including risks related to corruption, are assessed and reviewed annually and described in the Key risks section in the Annual report. Information regarding our misconduct reporting can be found in the review by the Board of Directors, Corporate Governance statement, and on the website. ■

* The completion rate of the Code of Conduct eLearning has been calculated based on the number of employees to whom the training has been assigned to, which differs from the headcount figures elsewhere in this report.

Doing the right thing

Anna-Maija Heinonen, Head of Compliance, talks about the meaning of responsible and ethical business practices.

It is said that Outokumpu conducts business with high integrity. What does this mean?

Acting with a high level of integrity is crucial for Outokumpu as a trusted partner. Trust is the key in conducting business in a responsible and ethical manner. Our customers and other stakeholders trust that we are playing by the rules and making sound, ethical decisions when working with them. They trust us and it is critical that we keep that trust by acting in the right way. At Outokumpu, responsible and ethical business practices are everyone's responsibility and every single act matters.

What have been the key achievements within ethics and compliance during 2021?

We have worked efficiently to further implement Outokumpu's ethics and compliance program in close co-operation with leadership, business areas and group functions. In 2021, we have especially emphasized that responsible and ethical business practices are owned by everyone at Outokumpu. In order to foster this message throughout the organization, we have held various training events on different topics regarding ethics and compliance, such as competition law compliance, provided engaging communications, such as through ethics and compliance-related case studies, and strengthened the discussion on the importance of ethical decision-making as part of our daily activities. We have also worked closely with several functions, such as with the sustainability team on ESG topics and with the internal audit on the review and update of Outokumpu's internal investigations operating model in light of the EU Directive on whistleblower protection. In addition, a remarkable effort on this topic has been the revision and launch of our Code of Conduct for all Outokumpu employees globally.

What has changed in the Code of Conduct?

The revised Outokumpu Code of Conduct was launched successfully, both internally and externally, in May 2021. The revised Code of Conduct reflects Outokumpu's current business practices, stricter global compliance requirements, and our commitment to various international declarations and principles, such as the UN Guiding Principles on Business and Human Rights. In addition, the updated Ethical Principles have been fully integrated into the Code of Conduct and the whole document has been organized on the basis of Outokumpu's new Ways of Working. Furthermore, we have emphasized the responsibility of managers, added case examples, and highlighted the importance of speaking up in case there are any concerns.

How has the revised Code of Conduct been taken by the employees?

The Outokumpu Code of Conduct is applicable to all employees, and we also expect that suppliers comply with our Code of Conduct and Supplier Requirements. It has been great to see that Outokumpu's employees have been actively part of the revision and launch of the Code of Conduct globally, and how meaningful they see responsible and ethical business practices and our Code of Conduct. It has also been a significant effort to get employees trained on the Code of Conduct. Again, this has been achieved through joint efforts and close co-operation with colleagues from various functions at Outokumpu.

Human rights at Outokumpu

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.

Salient human rights issues

Risks related to: / Affected human rights:	Right to equality	Health & safety	Right to rest and leisure	Right to environment	Freedom from discrimination & other rights related to minorities	Freedom from slavery	Children's rights	Indigenous rights
Supplier monitoring and on-site assessments	■	■	■	■	■	■	■	■
Truck drivers' working conditions	■	■	■					
Human trafficking in trucks or other parts of the supply chain	■	■				■		
Workplace attractiveness	■				■			
Greenhouse gas emissions of our own and suppliers' operations contribute to climate change		■		■				

■ Human right affected

□ Human right not affected

Human rights are addressed in several publicly available company documents: Outokumpu's Code of Conduct, our Corporate Responsibility Policy, our Supplier Requirements, and our Modern Slavery Statement. A stand-alone Human Rights Policy and a Supplier Code of Conduct are in preparation and expected to be published during 2022.

Outokumpu is committed to the UN Guiding Principles on Business and Human Rights (UNGP) and fully honours 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. Outokumpu promotes diversity and condemns discrimination and intolerance of all kinds. Outokumpu complies with international labour treaties and condemns all forms of forced labour or use of child labour. There is a freedom of association at Outokumpu.

Outokumpu also expects its customers and suppliers to respect internationally recognized human rights, and they must strive to avoid causing or contributing to adverse human rights impacts through their own activities and seek to prevent or mitigate adverse human rights impacts linked to their operations through business relationships.

The CEO has the 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 – Group Sustainability who is responsible for the management of ESG risks. In 2022, the integration of human rights risk management into the existing risk management of Outokumpu will be led by the Head of Supplier Sustainability Management, as most of the identified high human rights risks are connected to Outokumpu's sourcing activities.

Learnings and development in 2021

In 2021, Outokumpu committed to the UNGP. In addition to investigating the potential human rights impacts of a supplier in Brazil after the report by Finnish NGO Finnwatch, we started to implement the UNGP by drafting a human rights policy and conducting a human rights risk assessment to identify our potential and actual impacts on human rights and our most salient human rights issues. A second case of potential human rights infringements at one of our suppliers in Guatemala was brought to our attention towards the end of the year, which confirmed the urgent need for effective management of human rights risks.

Identification of salient human rights issues

In 2021, we carried out workshops with internal stakeholders to identify the most salient human rights risks. In addition, external experts also reviewed Outokumpu's public and internal documents. Also, the report of Finnwatch on Outokumpu's human rights due diligence and the views of the supplier and the indigenous community affected were considered in the process.

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. As a result of the human rights risk assessment, we identified the most salient human rights issues.

Management of salient human rights issues

Management of salient human rights issues requires the involvement of stakeholders. When analysing the results of the human rights risk assessment, it was found out that many actions had already been done to prevent human rights infringements, especially related to for example safety and environmental protection. In 2022, the salient human rights risks will be checked for existing mitigation actions that need to be linked to the human rights risks. Risks without or with insufficient mitigation actions will be defined and implemented.

Risks related to salient human rights issues

Supplier monitoring and on-site assessments

As can be seen, most of Outokumpu's salient human rights issues are linked to sourcing activities, which includes both the production of the materials purchased, as well as their transport. If supplier monitoring and on-site assessments are conducted insufficiently, all listed salient human rights are at risk. Another important area is the due diligence that our suppliers conduct on their suppliers and business partners. For example, if this due diligence is insufficient, there is a risk that sub-suppliers of our suppliers are involved in money laundering, terrorist funding or corruption, infringing the right to equality and our strict zero-tolerance policy for these types of misconduct.

Truck drivers' working conditions

In our business, goods need to be transported. This is valid for the materials that we purchase, the materials that we sell, as well as transport between our own production sites. Truck driver's working conditions and the potential infringement of their right to equality and their right to rest and leisure are an issue that many companies, including Outokumpu, face.

Human trafficking in trucks or other parts of the supply chain

Not only truck driver's rights are an issue than many companies face, but also human trafficking in international truck transport is a topic that needs to be addressed. Human trafficking is a world-wide problem that comes in many shapes and sizes, harming adults and children in countries rich and poor alike. Therefore, also for us in Outokumpu it is important to pay attention to this risk, as also trucks that transport Outokumpu's raw materials and finished products could be misused for this purpose.

Workplace attractiveness

Outokumpu is a stainless-steel producer with an own ferrochrome mine. Traditionally, the steel and mining industry is a male-dominated one. There is a risk that females or minorities may feel uncomfortable or fear that Outokumpu is not an attractive place to work at.

Greenhouse gas emissions of our own and suppliers' operations contribute to climate change

Both our own operations, as well as the operations of our supplier emit greenhouse gases, which contribute to global warming and climate change. Climate change and its increasing frequency of extreme weather events, natural disasters, raising see levels, floods, heat waves, droughts, desertification, and water shortages threaten human rights, for example the right to life (health & safety), and the right to environment.

Access to remedy

All stakeholders can raise their concerns to Outokumpu in various ways, including through our SpeakUp channel. SpeakUp is an externally operated channel to report breaches of the Outokumpu's 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.

Read more about human rights management at Outokumpu

Scope of the report

Outokumpu has published its sustainability review as part of the Annual Report 2021. Sustainability information is also available at www.outokumpu.com/sustainability.

Outokumpu Oyj reports on the material developments of continuing sites and changes in 2021 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 2021, including Sustainability Review, was published in March 2022.

Outokumpu's report has been prepared in accordance with the GRI Standards: Core option according to the GRI Standards reporting requirements. The materiality assessment from 2021 and continuous communication with stakeholders were the basis for the decision on material topics and relevant disclosures.

Full GRI disclosure

The independent practitioner's assurance report on the limited assurance conclusion is available on page 43 in the Sustainability Review. The Financial Statements 2021 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; Sheffield, the UK and Tornio, Finland.

Environmental responsibility

Outokumpu's climate change target is based on science and approved by the Science Based Target initiative. The target includes CO_{2eq} intensity of direct and indirect emissions of electricity and upstream emissions. Emissions are consolidated on production control.

CO_{2eq} emissions of electricity are calculated and monitored by the emissions factor of Outokumpu's electricity mix of 130 kg CO_{2eq}/MWh (2020: 152 kg CO_{2eq}/MWh), given by the electricity supplier for the used electricity and calculated as weighted average. It includes 0.5% 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 2019 or 2020 if available.

CO_{2eq} 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 30% from supplier specific emissions and 70% 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 63% 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 a study (EEA/ACC/18/001/LOT1) 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 CO_{2eq} reports of the service provider.

Upstream transport was assessed on data of environmental product declaration of 2020 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 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 2021, waste is reported as generated, diverted from landfill and landfilled. Information on onsite and offsite treatment and landfill were not available. Waste treated is counted as landfilled waste.

Customers' CO_2 savings are calculated with the difference of world's stainless steel footprint of 6.12 tonnes CO_{2eq} per tonne crude steel with 40% scrap recycling and 30% of nickel pig iron production and Outokumpu's footprint of 1.77 tonnes CO_{2eq} 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.

Training costs

Training costs include external training-related expenses such as participation fees. Wages, salaries and daily allowances for participants in training activities are not included, but the salaries of internal trainers are included.

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 = New Hires / total number of permanent employees by year-end

Average turnover rate = (Leavers + New Hires) / (total number of permanent employees by year-end × 2)

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.

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 2021 to 31 December 2021, disclosed in Outokumpu Oyj's Sustainability Review 2021 and in Outokumpu Oyj's online sustainability tool available on Outokumpu's website.

Selected sustainability information

The scope of our work was limited to assurance over the information summarized below. The information covers Outokumpu Oyj, as indicated in the Outokumpu Oyj's Sustainability Review 2021 and in Outokumpu Oyj's online sustainability tool. We have not been engaged to provide assurance on any information relating to prior reporting periods or to any other information in the Outokumpu Oyj's Sustainability Review 2021 and in Outokumpu Oyj's online sustainability tool.

The economic, social and environmental sustainability indicators covered within the scope of assurance include Topic-Specific Disclosures as well as General Disclosures. The Topic-Specific Disclosures are a combination of GRI Standards Disclosures and the Company's own disclosures. The assured indicators disclosed within the Outokumpu's Sustainability Review 2021 have been identified in the Company's GRI Standards Content Index, which is available on the company's website. All of the disclosures in the online sustainability tool have been assured.

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 reporting instructions described in Outokumpu Oyj's Sustainability Review 2021 and the GRI Standards of the Global Reporting Initiative. 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". The Standard requires 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 a representative of senior management of the Company.
- Conducting three video interviews with sites 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.
- 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 2021 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 2 March 2022

PricewaterhouseCoopers Oy
Authorised Public Accountants

Tiina Puukkoniemi
Partner, (KHT)
Sustainability Assurance and Reporting Lead

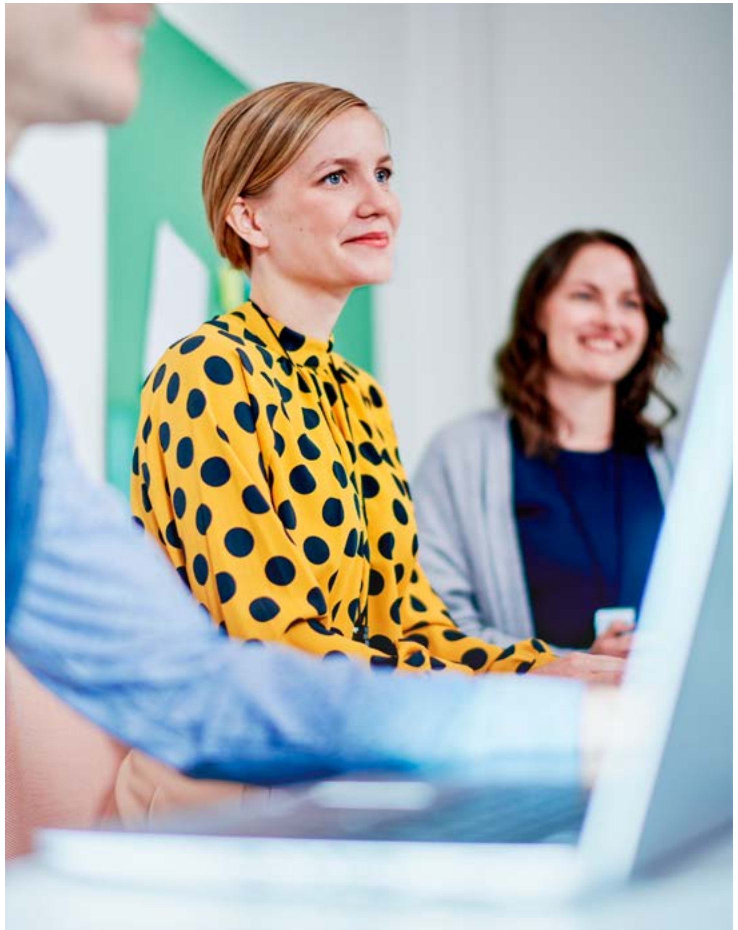
Janne Rajalahti
Partner, (KHT)

Governance

This Governance section includes Outokumpu's Corporate Governance Statement, Remuneration Report as well as information on key risks.

Download the Corporate Governance as PDF

Corporate Governance Statement 2021



Outokumpu Oyj, the Group's parent company, is incorporated and domiciled in Finland. Its headquarters are located in Helsinki.

Regulatory and structural framework

Outokumpu Oyj, the Group's parent company, is a public limited liability company, listed on Nasdaq Helsinki and incorporated and domiciled in Finland. In its corporate governance and management, Outokumpu Oyj complies with the laws and regulations applicable to a Finnish public company, the company's Articles of Association and the Corporate Governance Policy approved by the company's Board of Directors.

Outokumpu follows the Finnish Corporate Governance Code, effective as of January 1, 2020. The Finnish Corporate Governance Code is issued by the Finnish Securities Market Association and adopted by Nasdaq Helsinki.

The governing bodies of the parent company Outokumpu, i.e., the General Meeting of Shareholders, the Board of Directors, and the President and Chief Executive Officer (CEO), have the ultimate responsibility for the management and operations of the Outokumpu Group.

The latest Corporate Governance Statement and other updated corporate governance information can be found on the Group's Corporate Governance website.

The General Meeting of Shareholders convenes at least once a year. In accordance with the Finnish Companies Act, the General Meeting of Shareholders is the highest decision-making body of the company. The Act provides that certain important decisions such as amendments to the Articles of Association, approval of the financial statements, increasing or decreasing share capital, decisions on dividends, and the election of the Board of Directors and the auditors, are the exclusive domain of the General Meeting of Shareholders. In addition, the Annual General Meeting makes advisory resolutions on the Remuneration Policy and the Remuneration Report.

Composition and operations of the Board of Directors December 31, 2021

All Board members are independent of the company and its significant shareholders. Board of Directors' CVs are also available at our webpages

Kari Jordan

Chairman of the Board of Directors
b. 1956, Finnish citizen
M.Sc. (Econ.), Vuorineuvos (Finnish honorary title)

Outokumpu Board member 2018–
Chairman of the Board 2018–
Chairman of the Remuneration Committee

Work experience
CEO: Metsäliitto Cooperative 2004–2017
President and CEO: Metsä Group 2006–2018
Chairman: Metsä Board Corporation 2005–2018
Chairman: Metsä Fibre Oy 2006–2017
Chairman: Metsä Tissue Corporation 2004–2017
Executive Vice President and Member of the Group Executive Management: Nordea AB and predecessors 1994–2004
Member of the Board of Management: OKOBANK 1987–1994
Vice President: Citicorp Investment Bank Ltd 1986–1987
Several management positions: Citibank Plc 1981–1986

Positions of trust
Vice Chairman of the Board of Directors: Nordea Bank Abp 2019–
Chairman of the Supervisory Board: Varma Mutual Pension Insurance Company 2015–2019
Vice Chairman of the Board: Nokian Tyres Plc 2018–2021
Chairman of the Board: Finland Chamber of Commerce 2012–2016
Chairman of the Board: Finnish Forest Industries Federation 2009–2011
Vice Chairman of the Board: Confederation of Finnish Industries (EK) 2009–2011, 2013–2014

Holds several positions of trust in foundations and non-profit associations.

Eeva Sipilä

Vice Chairman of the Board of Directors
b. 1973, Finnish citizen
M. Sc. (Econ.), CEFA

Outokumpu Board member 2017–
Vice Chairman of the Board 2020–
Chairman of the Audit Committee

Work experience
Chief Financial Officer and Deputy to the CEO: Metso Outotec 2020–
Chief Financial Officer and Deputy to the CEO: Metso Corporation 2016–2020
Executive Vice President and Chief Financial Officer: Cargotec Corporation 2008–2016
SVP, Investor Relations and Communications: Cargotec Corporation 2005–2008
VP, Investor Relations: Metso Corporation 2004–2005
Investor Relations Manager: Metso Corporation 2002–2004
Equity Analyst: Mandatum Stockbrokers (part of Sampo group) 1999–2002
Associate Consultant: Arkwright AB, Stockholm, Sweden 1997–1998

Positions of trust
Supervisory Board member: Varma 2021–
Board member (2012–2016) and Audit Committee Chairman (2014–2016): Metso Corporation
Board member: Basware Corporation 2010–2013

Heinz Jörg Fuhrmann

Member of the Board of Directors
b. 1956, German citizen
PhD, Metallurgy, University of Berlin, Germany
Master's Degree, Metallurgy, RWTH Aachen University, Germany
Honorary Professor, RWTH Aachen University, Germany

Outokumpu Board member 2021–
Member of the Remuneration Committee

Work experience
Chief Executive Officer: Salzgitter AG 2011–2021
Vice Chairman, Executive Board: Salzgitter AG 2007–2011
Chief Financial Officer: Salzgitter AG 2001–2011
Executive Board Member: Salzgitter AG and Preussag Stahl AG 1996–2001
General Representative and Head of Central Corporate Planning: Preussag Stahl AG 1995–1996

Positions of trust
Member of the EIB Group Climate and Environment Advisory Council: 2021–
Chairman of the German Steel Industry Employer's Association 2020–
Member of the Presidential Board: Federation of German Industries (BDI) 2018–2021
Member of the Senate (2014–2016) and Chairman of the Senate: Fraunhofer Society 2016–
Member of the Supervisory Board: Aurubis AG 2009–2021
Member of the Supervisory Board: TÜV Nord AG 2008–
Member of the Supervisory Board: Öffentliche Versicherung Braunschweig (Insurance) 2002–

Kati ter Horst

Member of the Board of Directors
b. 1968, Finnish citizen
M.Sc. (Econ.), MBA (International Business)

Outokumpu Board member 2016–
Member of the Remuneration Committee

Work experience
Executive Vice President, Head of Stora Enso Paper, member of the Group Leadership team 2014–
Senior Vice President, Paper Sales, Printing and Living: Stora Enso 2013–2014
Senior Vice President, Office Paper Sales, Printing and Reading: Stora Enso 2012–2013
Director, Customer Service Centre West, Publication Paper: Stora Enso 2010–2012
Several managerial positions in the paper business, 1996–2010
Business analyst, Jaakko Pöyry Consulting, Singapore 1994–1996

Positions of trust
Member of the Supervisory Board: Wienerberger AG, May 2021–
Board member: Climate Leadership Coalition 2019–
Board member (2017–), Vice Chair (2019–2020) and Chair (2020–): EURO-GRAPH asbl
Board member: Finnish Forest Industries Federation 2015–

Päivi Luostarinen

Member of the Board of Directors
b. 1955, Finnish citizen
LL.M., University of Helsinki, Finland

Outokumpu Board member 2021–
Member of the Audit Committee

Work experience
Ambassador of Finland: London 2015–2019
Ambassador of Finland: Berlin 2011–2015
Director General, Europe: Ministry for Foreign Affairs of Finland 2008–2011
Deputy Director General, Americas and Asia: Ministry for Foreign Affairs 2007–2008
Chief Policy Adviser, Team Lead of Trade Policy and International Relations: Confederation of Finnish Industries, EK 2005–2006
Director General, Americas and Asia: Ministry for Foreign Affairs 2003–2005
Deputy Director General, Americas and Asia: Ministry for Foreign Affairs 2002–2003
Deputy Director General, Trade Policy and Economic Cooperation: Ministry for Foreign Affairs 2000–2001
Deputy Director General, the EU Secretariat: Ministry for Foreign Affairs 1996–2000
Member of the Cabinet of the Finnish Commissioner: EU Commission, Brussels 1995–1996

Positions of trust
Member: Finnish High Court of Impeachment 2012–2015
Board member: Finnish Institute of International Affairs 2010–2014
Member of the Supervisory Board: Finnfund 2005–2006
Board member: Finnfund 2002 and deputy member 2000–2001, 2003–2005 and 2007–2009

Ms. Luostarinen has in addition held several positions, starting in 1981, in the Foreign Service in Helsinki, at the Permanent Mission of Finland to the UN in New York and at the Permanent Delegation of Finland to the EU in Brussels.

Vesa-Pekka Takala

Member of the Board of Directors
b. 1966, Finnish citizen
M.Sc. (Econ.)

Outokumpu Board member 2019–
Member of the Audit Committee

Work experience
Deputy Managing Director: Metsäliitto Cooperative 2017–
Chief Financial Officer (CFO): Metsä Group 2010–
Chief Financial Officer (CFO) and Substitute to CEO, Member of the Group Executive Committee: Outotec Oyj 2009–2010
Chief Financial Officer (CFO), Member of the Group Executive Committee: Outotec Oyj 2006–2009
Executive Vice President, Corporate Controller, Member of the Group Executive Committee: Outokumpu Oyj 2005–2006
Senior Vice President, Corporate Controller: Outokumpu Oyj 2001–2005
Vice President, Corporate Controller: Outokumpu Oyj 1998–2001

Positions of trust
Board member: Metsä Fibre Oy 2021–
Board member: Metsä Tissue Oy 2018–
Board member: Metsä Spring Oy 2018–
Chairman of the Board: Metsä Group Treasury Oy 2013–
Board member, the Economy and Tax Committee: Finnish Forest Industries 2017–
Member of the Delegation: the Helsinki School of Economics Foundation 2014–
Board member, the Economy and Tax Committee: Confederation of Finnish Industries (EK) 2013–2016

Pierre Vareille

Member of the
Board of Directors

b. 1957, French citizen, Knight of the Legion of Honour in July 2003
M.Sc. (Ecole Centrale Paris), BA (Econ.) (Sorbonne University), Degree in Controlling and Finance (Institut de Contrôle de Gestion)

Outokumpu Board member 2018–
Member of the Remuneration Committee

Work experience
Chairman and CEO 2012–2013 and CEO 2013–2016: Constellium
Chairman of the Board and CEO: FCI SA 2008–2012
Chief Operating Officer: FCI SA 2007–2008
Group Chief Executive: Wagon Plc. 2004–2007
Senior Executive Vice President and President of the Aluminium Conversion Sector: Pechiney 2002–2004
Executive Vice President and President of the Exhaust Systems Business Group: Faurecia 1999–2002
Chairman and CEO: GFI Aerospace (now LISI Aerospace) 1995–1999
CEO of Group subsidiaries Cefival and Specitubes 1990–1995 and several operational and staff positions 1982–1989: Vallourec Group

Positions of trust
Vice Chairman of the Board and Lead Independent Director (2021–), Chairman of the Nomination, Remuneration and Governance Committee: Vallourec Group
Chairman of the Board: Société Bic SA 2018–2021
Board member (2015–), member of the Audit Committee (2018–2019) and the Nomination and Compensation Committee (2019–): Verallia
Founder and Co-President: The Vareille Foundation 2014–
Member of the Strategic Committee: CentraleSupelec 2008–
Lead Director and Vice President of the Board: Société Bic SA 2016–2018
Board member and member of the Audit Committee: Société Bic SA 2009–2016
Board member: CentraleSupelec 2008–2019
Chairman: European Aluminium Association 2015–2016
President: Alumni Association of the Ecole Centrale 2011–2013

In addition, Mr. Vareille has been a Member of the Board of Directors of diverse organizations such as the Advisory Board of the Confederation of British Industry, the European Committee of the MEDEF (Confederation of the French Industry) and the GIFAS (French Aerospace Industries Association).

Julia Woodhouse

Member of the
Board of Directors

b. 1958, British citizen
BA (hons) History

Outokumpu Board member 2019–
Member of the Audit Committee

Member of the ESG Advisory Council 2021–

Work experience
Director, Global Chassis Purchasing, Ford Motor Company 2016– 2018
Director, Global Power Train Components Purchasing, Ford Motor Company 2012–2016
Director, Ford of Europe Program Purchasing, Ford Motor Company 2005–2011
Director, Implementation Team, Ford Motor Company 2004–2005
Director, Team Value Management, Strategy & Business Development, Ford Motor Company 2002–2003

Positions of trust
Independent board member and member of Audit Committee and Remuneration Committee: Surface Transforms Plc 2021–
Independent non-executive board member, Standards & Regulation Board: Royal Institution of Chartered Surveyors 2020–
Member of the Advisory Board: Nexcel, a BP/Castrol automotive technology start-up company 2019–2020
Member of the Strategic Advisory Board: Ford/Michelin 2016–2018

In addition, Ms. Woodhouse has held several additional roles on committees and operating boards.

The Board assesses the independence of the Board members and records the outcome in the Board minutes. All members of the Board of Directors on December 31, 2021 were independent of the company and its significant shareholders.

Outokumpu shares and share-based rights (parent and subsidiaries) owned by each director and their controlled corporations on December 31, 2021

Board member	Number of shares
Kari Jordan	300,000
Eeva Sipilä	45,738
Heinz Jörg Fuhrmann	5,611
Kati ter Horst	39,609
Päivi Luostarinen	5,611
Vesa-Pekka Takala	36,459
Pierre Vareille	50,440
Julia Woodhouse	25,459
Total	508,927

Operations and appointment of the Board of Directors

The general objective of the Board of Directors is to direct Outokumpu's business and strategies in a manner that secures a significant and sustained increase in the value of the company for its shareholders and to ensure that the company acts as a reliable and trusted partner towards all its stakeholders. To this end, the members of the Board are expected to act as a resource and to offer their expertise and experience for the benefit of the company. The tasks and responsibilities of the company's Board of Directors are determined on the basis of the Finnish Companies Act as well as other applicable legislation.

The Board of Directors has the general authority to decide and act in all matters not reserved for other corporate governance bodies by law or under the provisions of the company's Articles of Association. The general task of the Board of Directors is to organize and oversee the company's management and operations and it has the duty at all times to act in the best interest of the company.

The Board of Directors has established the rules of procedure that define its tasks and operating principles in the Charter of the Board of Directors. The main duties of the Board of Directors are as follows:

With respect to directing the company's business and strategies:

- Decide on Outokumpu's strategy and the long-term targets of the Outokumpu Group (the "Group") and monitor their implementation;
- Decide on annual business plans and monitor their implementation;
- Decide on annual limits for the Group's capital expenditure, monitor related implementation, review performance and decide on changes;
- Decide on any major and strategically significant investments and monitor their implementation;
- Decide on any major and strategically important business acquisitions and divestments and monitor their implementation;
- Decide on the Group's external financing and treasury matters as follows and as further defined in the Board Charter;

i. All long-term financing arrangements by any Group company;

ii. Any major leasing arrangements; sale of receivables programs; short-term financing arrangements; and pledges and guarantees; by any Group company;

iii. Any major short-term derivatives or long-term derivatives, or any derivatives not done for hedging or liquidity management purposes; by any Group company;

iv. Any other significant financing and treasury transactions which are otherwise out of the Group's normal course of business;

- Decide on any other commitments by any of the Group companies that are out of the ordinary either in terms of value or nature, taking into account the size, structure, and field of the Group's operations.

With respect to organizing the company's management and operations:

- Nominate and dismiss the CEO and his/her deputy, if any, monitor his/her performance and decide on the CEO's terms of service, including incentive schemes, on the basis of a proposal made by the Board's Remuneration Committee;
- Nominate and dismiss the members of the Outokumpu Leadership Team and to define their areas of responsibility based on a proposal by the Board's Remuneration Committee;
- Monitor the adequacy and allocation of the Group's top management resources;
- Decide on any significant changes to the Group's business organization;
- Decide on the Group's ethical values and modes of activity
- Ensure that policies outlining the principles of corporate governance are in place;
- Ensure that policies outlining the principles of managing the company's insider issues and related party transactions are being observed;
- Ensure that the company has guidelines for any other matters that the Board deems necessary and that fall within the scope of the Board's duties and authority.

With respect to the preparation of matters to be resolved by the General Meetings of Shareholders:

- Establish a dividend policy and issue a proposal to the Annual General Meeting on dividend distribution;
- Make a proposal to the Annual General Meeting concerning the election of an external auditor and auditing fees;
- Make proposals to the Annual General Meeting concerning the company's Remuneration Policy and Remuneration Report; and
- Make other proposals to General Meetings of Shareholders.

With respect to internal control and risk management:

- Discuss and approve interim reports, statements, and annual accounts;
- Monitor significant risks related to the Group's operations and the management of such risks;
- Ensure that adequate policies for risk management are in place;

- Monitor financial position, liquidity, and debt maturity structure;
- Monitor the Group's control environment;
- Monitor and assess how agreements and other legal acts between the company and its related parties meet the requirements of the ordinary course of business and arm's length terms; and
- Reassess its activities on a regular basis.

In 2021, the Board of Directors assessed its ways of working and performance with support from an external service provider. The assessment results were presented to the Shareholders' Nomination Board.

According to the company's Articles of Association, the Board of Directors constitutes a quorum when more than half of its elected members are present. A decision by the Board of Directors shall be the opinion supported by more than half of the members present at a meeting. In the event of a tie, the Chairman shall have the casting vote.

The Annual General Meeting elects the Chairman, Vice Chairman and other members of the Board of Directors for a term expiring at the close of the following Annual General Meeting. The entire Board of Directors is, therefore, elected at each Annual General Meeting. A Board member may be removed from office at any time by a resolution passed by a General Meeting of Shareholders. Proposals to the Annual General Meeting concerning the election of Board members that have been made known to the Board of Directors prior to the Annual General Meeting will be made public if such a proposal is supported by shareholders holding a minimum of 10% of all the company's shares and voting rights and the person being proposed has consented to such nomination.

Under the company's Articles of Association, the Board shall have a minimum of five and a maximum of twelve members. A Board consisting of eight members was elected at the Annual General Meeting 2021. Board meetings will be held as regularly as deemed necessary, but at least five times every year. In 2021, the Board of Directors had 12 meetings, and the attendance rate was 100%.

Breakdown of individual attendance at Board meetings

12 meetings in 2021	Attendance
Kari Jordan	12/12
Eeva Sipilä	12/12
Heinz Jörg Fuhrmann, as of March 31, 2021	11/11
Kati ter Horst	12/12
Päivi Luostarinen, as of March 31, 2021	11/11
Vesa-Pekka Takala	12/12
Pierre Vareille	12/12
Julia Woodhouse	12/12

Diversity principles of the Board of Directors

Diversity of the Board of Directors supports the vision and long-term objectives of the Group. Outokumpu recognizes the importance of a diverse Board, taking age, educational and international background, professional expertise, experience from relevant industrial sectors as well as a well-balanced gender representation into account. The Shareholders' Nomination Board shall take the diversity principles into consideration when preparing its proposals to the Annual General Meeting and the progress in achieving set objectives shall be disclosed annually. The objective of a well-balanced Board structure in terms of gender representation was achieved in 2021.

The review by the Board of Directors is found on p. 2 in the Financials section.

Composition and operations of the Board committees

The Board of Directors has set up two permanent committees consisting of Board members and has confirmed the rules of procedure for these committees. Both committees report to the Board of Directors.

Audit Committee

The Audit Committee consists of a minimum of three Board members. At least one of the Committee members shall have an appropriate education and special expertise in corporate finance, accounting or auditing. The rules of procedure for and responsibilities of the Audit Committee have been established in the Audit Committee Charter approved by the Board of Directors. The task of the Audit Committee is, in greater detail than is possible for the Board as a whole, to deal with matters relating to financial statements, the company's financial position, auditing work, internal controls and compliance matters, the scope of internal and external audits, fees paid to the auditors, the Group's tax position, the Group's financial policies, monitoring and assessing related party transactions and other procedures for managing Group risks. In addition, the Audit Committee prepares a recommendation to the Board of Directors concerning the election of an external auditor and auditing fees at a General Meeting. The Audit Committee met six times during 2021, and the attendance rate was 100%.

Breakdown of individual attendance at Audit Committee meetings

6 meetings in 2021	Attendance
Eeva Sipilä	6/6
Päivi Luostarinen, as of March 31, 2021	4/4
Vesa-Pekka Takala	6/6
Julia Woodhouse	6/6

Remuneration Committee

The Remuneration Committee consists of the Chairman of the Board and a minimum of two additional Board members. The task of the Remuneration Committee is to prepare proposals to the Board concerning the appointment of the company's top management and principles relating to the compensation they receive as well as the company's Remuneration Policy and Remuneration Report. The terms of service and benefits of the Leadership Team members other than the CEO, are determined and approved by the Remuneration Committee.

The Committee's rules of procedure are further defined in the Remuneration Committee Charter, approved by the Board. The Remuneration Committee met six times during 2021, and the attendance rate was 100%.

Breakdown of individual attendance at Remuneration Committee meetings

6 meetings in 2021	Attendance
Kari Jordan	6/6
Heinz Jörg Fuhrmann, from March 31, 2021	3/3
Kati ter Horst	6/6
Pierre Vareille	6/6

Temporary working groups

To handle specific tasks, the Board of Directors can also set up temporary working groups consisting of Board members. These working groups report to the Board of Directors. No temporary working groups were set up in 2021.

Shareholders' Nomination Board

Outokumpu's Annual General Meeting in 2012 resolved to establish a Shareholders' Nomination Board to annually prepare proposals to the Annual General Meeting for the election, composition, and compensation of the members of the Board of Directors.

The Annual General Meeting has adopted a Charter of the Shareholders' Nomination Board, last revised in 2019, which regulates the nomination and composition, and defines the tasks and duties of the Nomination Board.

The Nomination Board consists of five members. Four of the members represent the company's four largest shareholders and the Chairman of the company's Board of Directors, in his capacity as an expert member, acts as the fifth member of the Nomination Board.

The representatives of the four largest shareholders of the company are annually appointed to the Nomination Board. The largest shareholders of the company are determined on the basis of the shareholders' register of the company and the ownership situation at the closing of Nasdaq Helsinki's last trading day in August. The company's shareholders' register only consists of shareholders who are directly registered in the Finnish book-entry system. Accordingly, to be eligible for membership in the Nomination Board, a nominee-registered shareholder needs to register the respective shareholding directly in the Finnish book-entry system for at least the said date.

In case a shareholder, who under the Finnish Securities Markets Act has an obligation to announce changes in its shareholdings and to sum up its holdings together with the holdings of certain other parties when doing so (flagging obligation), presents no later than on August 31 a written request to that effect to the Chairman of the company's Board of Directors, then the holdings of such shareholder and other parties shall be summed up for the purposes of determining the holdings of the largest shareholders.

In case two or more shareholders own an equal number of shares and, as a consequence, the four largest shareholders cannot be determined, the status of these shareholders among the four largest shareholders shall be resolved by drawing lots.

The Chairman of the Board of Directors shall request the four largest shareholders of the company each to nominate one member to the Nomination Board. Should a shareholder wish not to use its nomination right, the right transfers to the next largest shareholder who would otherwise not have a nomination right.

The term of office of the members of the Nomination Board expires annually when a new Nomination Board has been appointed. A shareholder may change its representative in the Nomination Board mid-term, should there be a weighty cause for such a change.

Decisions of the Nomination Board shall be unanimous. If unanimity cannot be reached, members of the Nomination Board shall present their own proposals to the Annual General Meeting individually or jointly with other members of the Nomination Board.

Shareholders with the right to appoint representatives to the Nomination Board in 2021 were Solidium Oy, Ilmarinen Mutual Pension Insurance Company, Varma Mutual Pension Insurance Company and the Social Insurance Institution of Finland.

These shareholders nominated the following individuals as their representatives in the Nomination Board: Antti Mäkinen, Managing Director of Solidium Oy, Jouko Pölönen, President and CEO of Ilmarinen Mutual Pension Insurance Company, Pekka Pajamo, CFO at Varma Mutual Pension Insurance Company and Outi Antila, Director General at The Social Insurance Institution of Finland, Antti Mäkinen was elected Chairman of the Nomination Board, and Kari Jordan, Chairman of the Outokumpu Board of Directors, served as an expert member.

The Nomination Board convened three times, and the attendance rate was 92%. The Nomination Board has submitted its proposals regarding the Board composition and director compensation to Outokumpu's Board of Directors, and the Board has incorporated these proposals into the notice convening the Outokumpu 2021 Annual General Meeting of Shareholders.

Executive Management

Biographical details of the CEO and the Leadership Team on December 31, 2021

Heikki Malinen

President and CEO
b. 1962, Finnish citizen
M.Sc. (Econ.), MBA (Harvard)

President and Chief Executive Officer 2020–
Chairman of the Outokumpu Leadership Team 2020–
Responsibility: Group management, legal and compliance, safety and health and business area Europe
Employed by the Outokumpu Group since 2020

Work experience
President and CEO: Posti Group Corporation (formerly Itella Corporation) 2012–2019
President and CEO: Pöyry PLC 2008–2012
Executive Vice President, Strategy, member of the UPM Executive Team: UPMKymmene Corporation, Helsinki, Finland 2006–2008
President: UPM North America, Chicago, USA 2004–2005
President of Sales: UPM North America, Chicago, USA 2002–2003
Managing Partner: Jaakko Pöyry Consulting, New York, USA 2000–2001
Engagement Manager: McKinsey & Co, Atlanta, USA 1997–1999
Director, Business Development UPM Paper Divisions, Helsinki, Finland 1994–1996

Positions of trust
Vice Chairman (2019–2020) and Board member: Outokumpu 2012–2020
Vice Chairman (2016–2018) and Board member: Service Sector Employers PALTA 2013–2019
Chairman: Realia Group 2017–2020
Board member: East Office of Finnish Industries 2012–2019
Chairman: American Chamber of Commerce (AmCham Finland) 2009–2014
Board member: Ilmarinen Mutual Pension Insurance Company 2014–2016
Board member: Federation of Finnish Technology Industries 2011–2012
Supervisory Board member: Finnish Fair Corporation 2014–2019
Supervisory Board member: Ilmarinen Mutual Pension Insurance Company 2013
Board member: Botnia Oy 2006–2008

Pia Aaltonen-Forsell

CFO
b. 1974, Finnish citizen
M.Soc.Sc. (Econ.), MBA

Chief Financial Officer 2019–
Member of the Outokumpu Leadership Team 2019–
Responsibility: Financial and business controlling, treasury, mergers and acquisitions, taxation, internal controls and internal audit, investor relations, general procurement, strategy and Transformation Office
Employed by Outokumpu Group since 2019

Work experience
Executive Vice President & CFO: Ahlström-Munksjö 2018
Chief Financial Officer: Munksjö 2015–2017
Chief Financial Officer: Vacon 2013–2015
Senior Vice President, Finance, IT and M&A, Building and Living: Stora Enso 2012–2013
Senior Vice President & Group Controller: Stora Enso 2009–2012
Various finance and managerial positions: Stora Enso 2000–2009

Positions of trust
Board member (2017–) and Audit Committee Chair (2018–): Uponor

Thomas Anstots

Executive Vice President, Commercial, Business Area Europe
b. 1962, German citizen
M.Sc. (Mechanical Engineering)

Executive Vice President, Commercial, Business Area Europe 2020–
Member of the Leadership Team 2020–
Responsibility: Sales in business area Europe and global marketing
Employed by Outokumpu since 2012

Work experience
Senior Vice President, Head of Sales, Business Area Europe: Outokumpu 2019–2020
Senior Vice President, Sales North: Outokumpu 2014–2018
Vice President, Sales Central and Service Center Operations: Outokumpu 2013
General Manager: Nirosta Service Center, Inoxum, ThyssenKrupp Nirosta 2010–2012
Managing Director Technology: Service Center Group, ThyssenKrupp Nirosta 2005–2009
Vice President, Business Processes and Applications: ThyssenKrupp Nirosta 2002–2004
Plant Manager, Finish Departments: ThyssenKrupp Nirosta 1998–2001
Various Manager and Senior Manager Positions in Cold Rolling Mill Production, Thyssen Edelstahl/Krupp Thyssen 1989–1997

Positions of trust
Board member and Vice Chairman: ISER Germany 2016–

Stefan Erdmann

Chief Technology Officer
b. 1972, German citizen
M.Sc. (Eng.)

Chief Technology Officer 2020–
Member of the Leadership Team 2020–
Responsibility: Research and development, technology, sustainability, investment steering and IT
Employed by Outokumpu since 2018

Work experience
Senior Vice President and CTO: Outokumpu 2018–2020
Technical Managing Director: Aluminium Norf GmbH 2015–2018
Vice President; Global Research and Development: Novelis Inc 2011–2015
General Manager; Business Unit Can Europe: Novelis AG 2009–2011
General Manager: Novelis Deutschland GmbH 2007–2009
Sales Director Painted Products: Novelis Europe 2006–2007
Various operational and managerial positions: Novelis and Alcan 1993–2006

Martti Sassi

President, Business Area Ferrochrome
b. 1964, Finnish citizen
M.Sc. (Eng.)

President, Business Area Ferrochrome 2020–
Member of the Leadership Team 2020–
Responsibility: Business area Ferrochrome
Employed by Outokumpu since 1990

Work experience
Senior Vice President, Business Area Ferrochrome: Outokumpu 2018–2020
Senior Vice President – Tornio Stainless and Ferrochrome Operations: Outokumpu 2016–2018
Senior Vice President – Tornio Stainless Operations: Outokumpu 2012–2016
Vice President – Tornio Stainless Business Excellence: Outokumpu 2010–2012
General Manager – Tornio Cold Rolling Plant: Outokumpu 2006–2010
Various operations and R&D positions: Outokumpu 1990–2006

Positions of trust
Board member: Technology Industry Employers of Finland 2021–
Board member: Association of Finnish Steel and Metal Producers 2020–
Chairman of Board: Chamber of Commerce in Lapland 2020–2021
Council member: International Chromium Development Association 2019–
Board member: EuroAlliages 2018–

Johann Steiner

Chief Human Resources Officer
b. 1966, German citizen
M.Sc. (Econ.)

Chief Human Resources Officer 2020–
Member of the Outokumpu Leadership Team 2013–
Responsibility: Human resources, Group communications and Global Business Services (GBS)
Employed by the Outokumpu Group since 2013

Work experience
Executive Vice President – Human Resources and Organization Development: Outokumpu 2016–2020
Executive Vice President – Human Resources, IT, Health and Safety: Outokumpu 2013–2016
Executive Vice President – Human Resources and Health, Safety and Sustainability: Outokumpu Oyj 2013
Group HR Director: SAG Group GmbH 2012
Operating Partner: Humatica AG 2010–2012
Group HR Director: Clariant International AG 2002–2008
VP Executive Policies: EADS (former DaimlerChrysler Aerospace AG) 1999–2002
Senior Consultant: Towers Perrin 1993–1998

Niklas Wass

Executive Vice President, Operations, Business Area Europe
b. 1977, Swedish citizen
M.Sc. (Environmental Science)

Executive Vice President, Operations, Business Area Europe 2020–
Member of the Leadership Team 2020–
Responsibility: Operations and supply chain management in business area Europe
Employed by Outokumpu since 2002

Work experience
Senior Vice President, Operations Europe: Outokumpu 2020
Senior Vice President, Tornio Operations: Outokumpu 2018–2020
Vice President, Quarto Plate: Outokumpu 2015–2018
General Manager Production: Outokumpu Degerfors 2010–2015
Various operational positions: Outokumpu 2002–2010

Positions of trust
Board member: Swedish Steel association (Jernkontoret) 2015–

Tamara Weinert

President, Business Area Americas
b. 1965, German citizen
MBA, M.Sc.

President, Business Area Americas 2021–
Member of the Leadership Team 2020–
Responsibility: Business area Americas
Employed by Outokumpu since 2012

Work experience
Acting President, Business Area Americas: Outokumpu 2020–2021
SVP, Sales South & Overseas, Business Area Europe: Outokumpu 2016–2020
SVP, Finance & Control, Business Area Europe: Outokumpu 2013–2016
VP, Investor Relations: Outokumpu 2012–2013
Director Treasury, Risk Management, Insurance & Investor Relations: Inoxum 2012
Director, Head of Corporate & Structured Finance: Vattenfall 2011–2012
Treasurer: N.V. Nuon 2008–2010
Risk Management: N.V. Nuon 2000–2008
International postings in India, Singapore, Russia, Netherlands, the US and Finland

Positions of trust
Board member: American Iron and Steel Institute 2020–
Member of the Advisory Board: Mobile Chamber of Commerce, Alabama, US 2020–

Information on work experience and positions of trust to be found on the Company's website

Outokumpu shares and share-based rights (parent or subsidiaries) owned by the CEO and Leadership Team members and their respective controlled corporations on December 31, 2021

Member of the Leadership Team	Number of shares
Heikki Malinen	45,459
Pia Aaltonen-Forsell	10,950
Thomas Anstots	94,909
Stefan Erdmann	40,000
Martti Sassi	17,196
Johann Steiner	155,444
Niklas Wass	18,443
Tamara Weinert	30 489
Total	412,890

More information on compensation can be found in the Remuneration Report.

CEO and deputy to the CEO

The President and Chief Executive Officer (CEO) is responsible for the company's operational management, in which the objective is to secure significant and sustainable growth in the value of the company for its shareholders.

The CEO prepares decisions and other matters for the meetings of the Board of Directors, develops the Group's operations in line with the targets agreed with the Board of Directors, and ensures the proper implementation of Board decisions. The CEO is also responsible for ensuring that the existing legislation and applicable regulations are observed throughout the Group. The deputy to the CEO, if one has been appointed, is responsible for attending to the CEO's duties in the event that the CEO is prevented from doing so. Currently, no deputy to the CEO has been appointed.

Leadership Team and Business Area Boards

The Outokumpu Leadership Team, chaired by the CEO, is a reporting and decision-making forum for steering and managing Outokumpu's corporate agenda. The Outokumpu Leadership Team consists of the CEO, his/her deputy (if one has been appointed) and other key members of senior management. The Group Functions Board is a sub-section of the Outokumpu Leadership Team and a monitoring and decision-making forum for the corporate affairs of the Group Functions. The Group Functions Board is chaired by the CEO. Decisions taken by the Group Functions Board are reported to the Outokumpu Leadership Team.

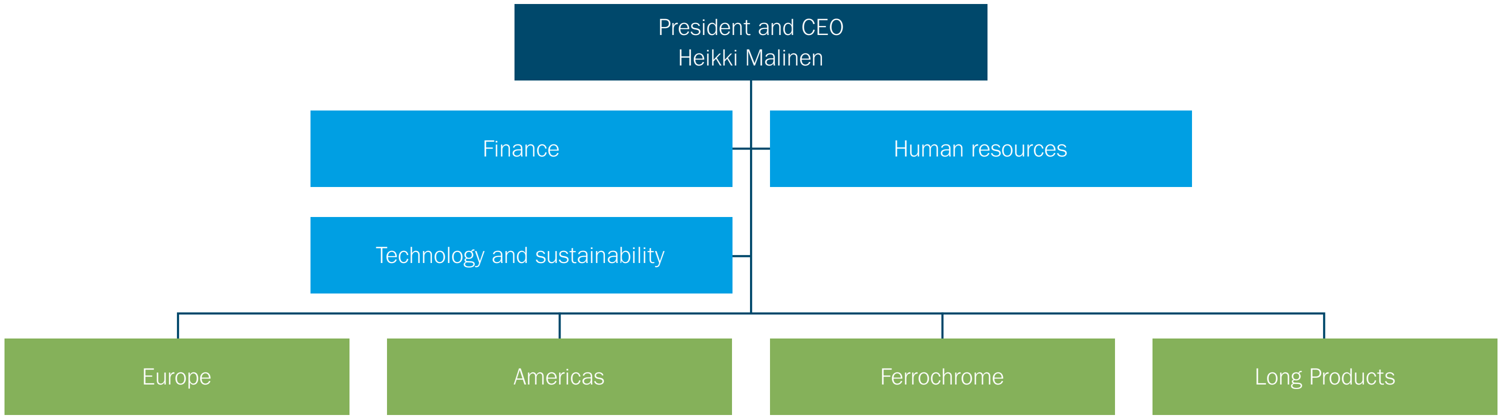
Each Outokumpu business area is steered by a Business Area Board, chaired by the CEO. The Business Area Boards consist of the CEO, the CFO, the Head of the respective business area and selected other key members of senior management.

The decision-making authorities of the Leadership Team and the Business Area Boards follow from the authority of the CEO. It is the duty of these bodies to run and develop the Group's operations in line with the strategy and targets set by the Board of Directors.

The Leadership Team and the Business Area Board meetings are convened by the CEO. Minutes shall be kept for each meeting.

The Leadership Team, the Group Functions Board and the Business Area Boards typically meet once a month.

Organization structure on Dec 31, 2021

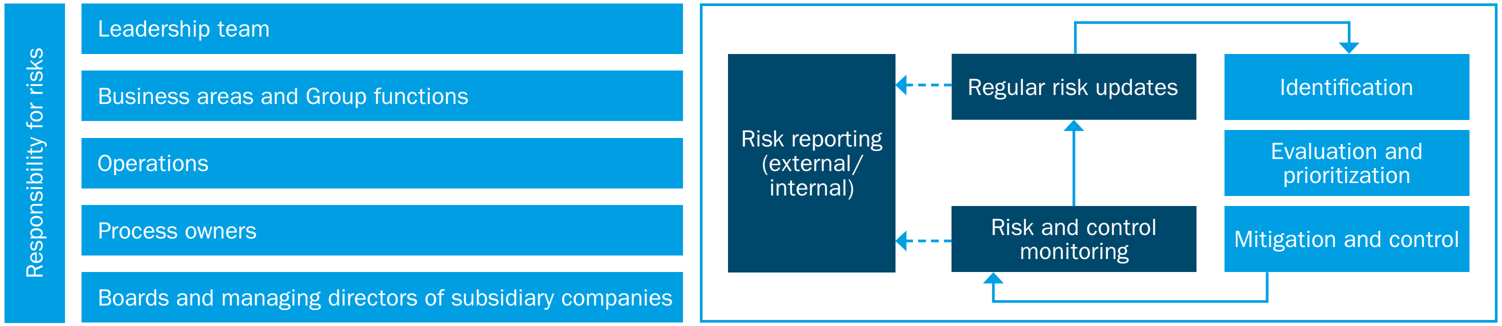


Internal control system and the main features of the risk management and control procedures

Internal control and risk management

According to the Finnish Limited Liability Companies Act and the Finnish Corporate Governance Code, the Board of Directors is responsible for ensuring that the company's internal controls are appropriately organized. The purpose of this section is to provide shareholders and other parties with a description of how the internal control and risk management of financial reporting is organized in Outokumpu. As a listed company, the Group has to comply with a variety of regulations. To ensure that all the stated requirements are met, Outokumpu has introduced principles for financial reporting and internal control and deployed them throughout the company's organization.

Risk management process in Outokumpu



Control environment

The foundation of Outokumpu's control environment is the business culture established within the Group and its associated methods of operation. The basis for the company's compliance and control routines is provided by Group policies and principles, which define the way in which Outokumpu's organization operates. These policies and principles include, for example, the Corporate Responsibility Policy and Ethics Statement. The Outokumpu Code of Conduct describes the Group's basic values and offers standardized, practical guidelines for managers and employees to follow. Furthermore, the Internal Control Policy, the Approval Policy, and the Identity and Access Management Policy define many of the principles related to the system of internal controls.

The performance management as well as the risk management and internal control process are key management activities in enabling an efficient control environment. Throughout the Group's operations, the planning activities and the setting of both operational and financial targets are executed in accordance with Outokumpu's overall business targets. Management follow-up of related achievements and risks is carried out through regular management reporting and meeting routines.

The Internal Control function oversees and develops Outokumpu's system of internal controls and tests the established controls. The function is also responsible for Group-wide governance, risk and compliance coordination. With the lead of the Internal Control function, Outokumpu has continued to further develop and implement global, aligned and consistent risk management and internal control process, which will improve assurance for the Group to reach its key targets. In the course of 2021, implementation of the new risk and control management process started and the effort is expected to continue during 2022. Furthermore, a review of segregation of duties management was carried out. Certain improvement actions, e.g. related to emergency access management (EAM) process, were carried out during the year, and a roadmap for further improvements in the coming years was defined.

Risk management

Outokumpu operates in accordance with the risk management policy approved by the company's Board of Directors. The policy defines the objectives, approaches, and areas of responsibility in the Group's risk management activities. Supporting Outokumpu's strategy, the aim of risk management is to identify, evaluate, mitigate, control and report risks from shareholders and other stakeholders' point of view such as customers, employees, financiers, suppliers and regulators.

Risk management organization

The Board of Directors carries ultimate responsibility for risk management within Outokumpu. The CEO and members of the Leadership Team are responsible for defining and implementing risk management procedures, and for ensuring that risks are both properly addressed and considered in strategic and business planning.

Outokumpu's Risk Management Steering Group, led by the CFO, is the governing body for risk management in Outokumpu. Other steering groups led by CFO, such as Financial Risk Steering Group for financial risk management and Energy Risk Steering Group for energy risk management, contribute to company's overall risk management as well.

The Business areas and Group functions are responsible for identifying, evaluating and managing the risks connected with their own operations. The Risk Management Steering Group and the Board of Directors review the key risks and actions to be taken to manage these risks on a regular basis. The Treasury function supports the implementation of Outokumpu's risk management policy, facilitates and coordinates risk management activities, and prepares quarterly risk reports for management, the Board Audit Committee and Auditors.

Risk management and internal control procedures

Outokumpu has defined risk as anything that could have an adverse impact on achieving the Group's objectives. Risks can, therefore, be threats, uncertainties, or lost opportunities connected with current or future operations. Outokumpu's appetite for risk and risk tolerance are defined regularly in relation to earnings, cash flows, and capital structure. The risk and control management process is an integral part of the overall management processes and is divided into following stages: 1) risk identification; 2) evaluation and prioritization; 3) mitigation actions and control activities, and 4) monitoring and reporting. The process in Outokumpu is two-fold consisting of risk management and linked to this, control activities and control testing. The same process is applied in different levels of the Group's organization.

Within Outokumpu, the process is monitored and controlled at different organizational levels. Regular risk updates are carried out to capture relevant information. Scheduled control activities are performed to provide reasonable assurance on the adherence to company policies and procedures. The monitoring of the outcome of risk evaluations, as well as the risk mitigation actions and control activities, ensure that accurate information is provided both internally – to business area management teams and members of the Leadership Team – and externally to relevant parties such as shareholders and other stakeholders.

Internal controls for financial reporting

Outokumpu's control process for financial reporting is mainly based on the Internal Control Policy, Outokumpu Accounting Principles and the Approval Policy, as well as on the responsibility and authorization structure within the Group. Policies relating to financial reporting are usually owned and approved by the CFO. Financial reporting in Outokumpu is carried out in a harmonized way using a common chart of accounts and principles.

Financial reporting is prepared in accordance with International Financial Reporting Standards (IFRS). The Outokumpu Accounting Principles (OAP) are Outokumpu's application guidance on IFRS. The aim of the OAP and other financial reporting policies and instructions is to ensure that uniform financial processes and reporting practices are used throughout the Group. Policies and instructions for financial reporting are reviewed on a regular basis and revised when necessary.

The financial statements of the parent company and stand-alone Finnish subsidiaries are prepared in accordance with generally accepted accounting principles in Finland, while foreign subsidiaries follow local accounting principles. Outokumpu also complies with the regulations regarding the financial reporting published by the Financial Supervisory Authority (FIN-FSA), Nasdaq Helsinki, and ESMA.

Identification and assessment of risks related to financial reporting

The risks related to the Group's financial reporting are managed according to Outokumpu's risk management policy and classified as operational risks that can arise as consequences of inadequate or failed internal processes, employee actions, systems, or other events such as misconduct or crime. The risks related to financial reporting are identified and typically assessed in risk workshops and in 2021 the assessments were conducted for most of the relevant parts of financial reporting process. Some of the identified risks and related controls were implemented in the new risk and control management system.

Control activities

In addition to the Board of Directors, finance management at all levels as well as the Boards of subsidiary companies are responsible for ensuring that the internal controls relating to financial reporting are in place. Outokumpu has centralized majority of its accounting and financial reporting in the global business service center, which enables the efficient execution of internal control activities.

The aim of control activities is to discover, prevent, and correct the potential errors and deviations in financial reporting. Control activities also aim to ensure that authorization structures are designed and implemented in such a way that incompatible tasks (e.g. one person performing a critical activity and also being responsible for controlling that activity) are segregated. Control activities consist of different kinds of measures and include reviews of financial reports by Group management and in business area management teams, the reconciliation of accounts, analyses of the logic behind reported figures, forecasts compared to actual reported figures, and analyses of the Group's financial reporting processes, among others. A key component is the monitoring of monthly performance against financial and operational targets. These control activities take place at different levels of the organization.

The most important accounting items in Outokumpu are the valuation and reporting of inventories and other items requiring management judgment, such as provisions. Moreover, in difficult market situations, such as the COVID-19 pandemic, asset impairment calculations and the related sensitivity analyses are equally important. These items are carefully monitored and controlled on a regular basis, both within business areas and at the Group level.

Information technology and solutions play an important role in ensuring the appropriate structures for internal controls. The Group's consolidation system provides timely and uniform financial and management reporting from the Group entities and an effective closing process within the whole Group. Outokumpu is also running a business transformation program to develop and improve business capabilities and to renew parts of its fragmented system environment. This will be achieved mainly by harmonizing and improving the Group's core business processes and implementing supporting IT systems, with improved system-based controls embedded in processes.

The new ERP together with other related IT systems were successfully implemented for the Avesta site in 2021. Preparations for future rollouts are expected to continue in 2022. Furthermore, Outokumpu completed the implementation of its financial closing management system across the Group and enhanced related internal controls in the harmonized financial closing process. The new system improves transparency, has embedded process controls and drives both efficiency and reliability of the reporting process. In 2022, Outokumpu aims to further develop financial reporting process by increasing the coverage of internal controls, developing systems for consolidation of financial information, and increasing efficiencies and effectiveness in financial closing processes.

Information and communication

Group-wide policies and principles are available to all Outokumpu employees. Instructions relating to financial reporting are communicated to all of the parties involved. The main communication channels employed are regular controller meetings, Outokumpu's intranet, other easily accessible databases, and email. In the pandemic situation with remote work promoted, only a limited number of face-to-face controller meetings have been organized. Finance Leadership Team meetings are organized regularly to share information and discuss issues of topical interest to the Group.

Furthermore, Outokumpu has established Group Functions Board and steering groups (e.g. for risk management and compliance topics) in which financial reporting and internal control issues can be discussed and reviewed. These groups typically consist of senior members of management and substance experts. The aim of Outokumpu is to ensure that common financial processes and reporting practices are followed throughout the Group and that effective internal controls relating to financial reporting are established.

Monitoring activities

Both management in all Outokumpu companies and the accounting and controlling functions are responsible for the follow-up and monitoring of internal controls connected with financial reporting. Overall development and monitoring of the internal control process and platforms as well as control testing are performed by Group Internal Control function. The Internal Audit function monitors that an appropriate control environment exists across the Group. Risk management, Compliance function, and external auditors are also engaged in the follow-up of control activities. The findings of the follow-up procedures are reported to the Board Audit Committee and the Group Functions Board on a regular basis.

Internal audit

Internal Audit is an independent and objective assurance, control, and consulting function designated to add value, improve operations, and monitor and support the organization in the achievement of its objectives. Through a systematic, disciplined approach, Internal Audit determines whether governance and compliance processes, the internal control system, and the risk and control management process, as designed and represented by the Board of Directors and the Outokumpu Leadership Team, are effective and efficient.

With a strong commitment to integrity and accountability, Internal Audit provides value to the Board of Directors and senior management as an objective and direct source of information, insights and independent advice. Internal Audit monitors adherence to Group principles, policies and instructions, and leads investigations on fraudulent and noncompliant behaviors and activities. Internal Audit performs its function on behalf of and directly reports to the Board Audit Committee and to the executive management. The internal audit plan is approved by the Board Audit Committee. In addition, the function may carry out unscheduled audits when needed.

In 2021, Internal Audit performed five site or thematic audits. The results of the audits that were carried out, including their risk appraisals, are reported and distributed in writing. In view of the Outokumpu Code of Conduct and the Corporate Responsibility Policy, no issues of material risk for the Outokumpu Group were identified. The 2022 internal audit plan will focus on e.g. supply chain risk management and site audits.

Outokumpu encourages everyone to raise their concerns and there is a strict non-retaliation policy in place regarding the concerns raised in good faith. There are several ways to report alleged misconduct, including SpeakUp, an externally operated communication channel, that offers the option to report misconduct confidentially and anonymously, if allowed by the laws and regulations.

SpeakUp channel is available both internally on company intranet and for external stakeholders via the company webpage. 40 reports of alleged misconduct were recorded in 2021, and thereof 29 cases were reported via SpeakUp and 11 were recognized through other channels.

During the year internal audit process, investigations operating model as well as related tools and methodologies were developed to further improve efficiencies and effective ways of working as well as to prepare for the implementation of the EU Directive on whistleblower protection and consequent legislation.

Ethics and compliance

Outokumpu is strongly committed to the highest ethical standards and complies with the applicable laws and regulations of the countries in which it operates as well as with the agreements and commitments it has made. Outokumpu's Code of Conduct sets out these ethical standards and provides guidelines for common ways of working with the aim of ensuring that all Outokumpu employees live up to Outokumpu's ethical standards.

Outokumpu's Legal and Compliance function is responsible for managing and continuously developing Outokumpu's ethics and compliance program. Outokumpu's ethics and compliance program is described in more detail in the Sustainability review. The Legal and Compliance function reports to the CEO and to the Outokumpu Leadership Team as well as directly to the Board Audit Committee on ethics and compliance related matters. Ethics and compliance related matters are also regularly handled in the Compliance Steering Group, consisting of the CEO, CFO, Head of HR, Head of Internal Controls and Internal Audit, Corporate General Counsel and Head of Compliance. The Compliance Steering Group met four times in 2021. A network of compliance contact persons and several data protection governance bodies support the implementation of the ethics and compliance program in the business areas and group functions.

Insider management

The company's Insider Rules, the Finnish insider laws and regulations, including the EU Market Abuse Regulation, constitute the primary legal framework for the insider issues relevant to the Group and its employees.

Furthermore, the Regulation on EU Energy Market Integrity and Transparency sets forth similar requirements as the Market Abuse Regulation on dealing with inside information relating to wholesale energy products. As the company is a participant in the wholesale energy market, the company's Insider Rules apply to such energy-related inside information, as applicable.

The persons discharging managerial responsibilities in Outokumpu, in the meaning of the Market Abuse Regulation, include members of the company's Board of Directors, the CEO, and other members of the Outokumpu Leadership Team ("the Management"). The Management together with the persons or companies closely associated with a member of the Management constitutes the so called "Notifying Persons". Outokumpu maintains a non-public list of the Notifying Persons.

Outokumpu applies a restricted period of thirty (30) calendar days before the announcement, as well the day of the announcement, of an interim financial report, interim financial statement and a year-end report – so called "Closed Window". During this period, the Management, the persons subject to trading restrictions and any legally incompetent persons under their custody shall not conduct any transactions, on his/her own account or for the account of a third party, directly or indirectly, relating to the company's shares or debt instruments, or derivatives or other financial instruments linked thereto. Separate, non-public, project-specific insider registers are maintained for insider projects. Persons defined as project-specific insiders are those who, in the course of their duties in connection with a project, receive inside information concerning the Group which, if or when realized, is likely to have a significant effect on the value of the company's publicly traded securities.

The company has the obligation to inform the public as soon as possible of inside information that directly concerns the company, unless the company has decided that the publication of the inside information shall be delayed, in accordance with the applicable insider regulations. The publication of inside information shall be made in accordance with the company's Disclosure Policy.

Outokumpu's Head of Legal and Compliance function is responsible for the coordination and supervision of insider topics.

Related party transactions

The Second Shareholders' Rights Directive (EU), the International Accounting Standards IAS 24, the Companies Act and the Securities Markets Act as well as the Finnish Corporate Governance Code constitute the primary legal framework in the related party transaction principles relevant to the Outokumpu Group and its related parties.

Definition of related parties and maintenance of the list of related parties

Outokumpu Oyj's related parties are determined in accordance with the International Accounting Standards (IAS 24) and they include, i.a., the Group subsidiaries, members of the parent company's Board of Directors and the Leadership Team as well as their related persons and companies. The company's Legal and Compliance function maintains a non-public list of Outokumpu Oyj's related parties, which is updated on a regular basis.

Evaluating related party transactions

A related party transaction is any transaction which is conducted between the Outokumpu Group and a related party of Outokumpu Oyj. Transactions between a company and its related parties are allowed, provided that they promote the purpose and interests of the company and are commercially justified.

Any transactions that are not conducted in Outokumpu Group's ordinary course of business or are not implemented under arms-length terms require specific approval according to Outokumpu Group's Approval Policy. Any such transactions are escalated for review on Group executive level and cross-checked against the related parties. Any related party transactions that are not conducted in Outokumpu Group's ordinary course of business will require a decision by Outokumpu's Board of Directors and a transaction which would be deemed material for Outokumpu's shareholders will also have to be publicly disclosed. The decision making of the Board of Directors also takes provisions on conflicts of interest into account as board members cannot participate in deciding a matter concerning themselves. Board members also have a conflict of interest and cannot participate in decisions concerning a transaction with one of their related parties if that transaction is not part of the company's ordinary course of business or is not implemented under arms-length terms.

Monitoring and reporting related party transactions

Outokumpu's Audit Committee monitors the evaluation process. Related party transactions are reported to the Audit Committee on a regular basis. Outokumpu's finance and control functions monitor related party transactions regularly in arrears as a part of the company's reporting and control procedures. Information on transactions concluded between the company and its related parties is disclosed annually in the company's consolidated financial statement.

Auditors

Under its Articles of Association, the company shall have a minimum of one and a maximum of two auditors. The auditors must be Authorized Public Accountants (KHT) or accounting firms whose mainly responsible auditors are Authorized Public Accountants (KHT). The auditors shall be independent of the company.

The Board of Directors has the duty to make a proposal to the Annual General Meeting as to the election and fees of the auditor. The Annual General Meeting elects the auditors for a term of office ending at the close of the next Annual General Meeting. A proposal to the Annual General Meeting on the election of auditors that has been made known to the Board of Directors prior to the Annual General Meeting will be made public if it is supported by shareholders holding a minimum of 10% of all the company's shares and voting rights and the person or company proposed has consented to such nomination.

The company's auditors submit the statutory auditor's report to the company's shareholders in connection with the company's financial statements. The auditors also report their findings to the Board Audit Committee on a regular basis and at least once a year to the full Board of Directors. The parent company, Outokumpu Oyj, is audited by Pricewaterhouse-Coopers Oy, and the responsible auditor is Janne Rajalahti, Authorized Public Accountant. PricewaterhouseCoopers Oy is also responsible for overseeing and coordinating the auditing of all Group companies.

PricewaterhouseCoopers Oy was elected as the Group Auditor in the Annual General Meeting held on March 31, 2021 and has been the Auditor of Outokumpu for five consecutive terms. Both Outokumpu and PricewaterhouseCoopers Oy emphasize the requirement stipulating that the auditor be independent of the company being audited. The PwC Network Independence policy is based on the International Ethics Standards Board for Accountants' (IESBA) Code of Ethics for Professional Accountants.

Outokumpu's Board Audit Committee continuously monitored the non-audit services purchased by the Group from Pricewaterhouse-Coopers at the global level. In 2021, the auditors were paid fees totaling EUR 2.7 million, of which the non-auditing services accounted for EUR 0.4 million.

Key risks

Strategic and business risks

Risks related to Outokumpu's business priorities and targets

Outokumpu's strategy is built on clear time-bound initiatives and targets to competitively position itself for the future by strengthening its balance sheet in the shorter term and by de-risking the company for strong returns in the long run. Ultimately, company's vision is to be customer's first choice in sustainable stainless steel.

Outokumpu's current expectations regarding the outcome of the strategy and vision are based on a number of assumptions that are subject to various risks and uncertainties.

Stainless steel industry and markets

Outokumpu believes that the long-term prospects for stainless steel demand remain firmly positive. Global megatrends including population growth, urbanization, increasing mobility and climate change will drive the need for sustainable materials. There is a possibility that such megatrends will realize more slowly than expected and that the occurrence of natural catastrophes or other adverse changes in the global political and economic environment can impact the stainless steel industry, thereby reducing growth prospects in Outokumpu's core markets. Nonetheless, demand in Outokumpu's main regions and customer segments is expected to be robust and will continue to support long-term growth. Also improved financial performance together with continued de-leveraging of the balance sheet will improve the resilience towards possible adverse economic environment.

The risk of global overcapacity in stainless steel has the potential to further disrupt industry economics. The commissioning of new export-driven capacity in Asia, particularly in China and Indonesia, has created a regional demand imbalance. This results in a risk of adverse trade flows to Outokumpu's core markets. Given the global nature of its operations Outokumpu has significant exposure to the effects of trade actions and barriers. Insufficient trade defense measures as imposed in our home markets would be a risk for Outokumpu's financial performace. On the other hand, trade defense measures imposed by the export market countries could undermine our access to these markets and result to similar risks.

In general, the risks arising from unfair trade in Outokumpu's home markets continued to ease remarkably in 2021. To mitigate from distortions like dumping, state subsidies or weaker sustainability performance, the European Union has taken some important steps in the process of creating a fairer competitive environment between the EU and third country producers. The decision in June to renew the EU steel safeguard measures for another three years was very well justified. Later, in September the EU has also renewed the anti-dumping duties on cold rolled from China and Taiwan and in November additionally imposed the definitive anti-dumping duties on cold rolled from Indonesia and India. On top of that, the EU initiated an investigation into the alleged subsidies by the governments of Indonesia and India in February. In this proceeding there will be a chance to impose definitive anti-subsidy duties on cold rolled imports from these countries by March 2022.

Outokumpu's current expectations regarding the market trends are based on assumptions and expectations that are subject to various risks and uncertainties.

With increasing global demand for stainless steel, Outokumpu expects global demand for ferrochrome, a key ingredient in stainless steel production, to increase correspondingly. From its cost competitive chrome mine in Kemi and ferrochrome production facilities in Tornio, Outokumpu supplies a significant amount of ferrochrome to its own stainless steel operations. As a result, Outokumpu is well placed to maintain high utilization rates and support the group's growth and profitability. Risks resulting from its production of ferrochrome are typical operational risks and uncertainties that may cause significant financial impacts due to the costs for energy, coke, production downtimes and business interruptions. Risks associated with its external sales of ferrochrome include COVID-19 causing uncertain ferrochrome supply-demand balance, energy prices and foreign exchange rates, particularly the US dollar.

Raw materials, supplies, and energy

Outokumpu is exposed to price changes of alloy metals in multiple ways. The underlying exposure consists of price fixed purchase contracts, price fixed sales contracts and physical stocks of priced inventories of nickel, molybdenum, carbon steel and stainless steel scrap as well as various grades and forms of stainless steel. Price changes of alloy metals lead to impacts on earnings, cash flows, and balance sheet structure.

Pricing systems are applied in many markets and may cause volatility in demand of stainless steel. A possible adverse consequence of volatility in demand is the negative impact on capacity utilization ratios. In addition, the monetary value of discounts in purchasing (e.g. in connection with purchases of stainless steel scrap) depends on the level of alloy metal prices. Therefore, the price levels of alloy metals have long-term impacts on profitability.

Stainless steel production requires substantial amounts of certain raw materials, primarily nickel, recycled stainless steel, ferrochrome, molybdenum, recycled carbon steel as well as energy and supplies. Most of these are subject to significant price volatility due to fluctuating customer demand, speculation, and scarcity, which may, from time to time, be compounded by decreases in extraction and production due to natural disasters, the COVID-19 pandemic, and political or financial instability or unrest.

Increases in the prices of certain raw materials, such as nickel, ferrochrome, molybdenum, and iron, are generally passed on to customers through alloy surcharges. Outokumpu has hedged part of its exposure to changing nickel prices. Although the alloy surcharge mechanism is intended to allow stainless steel producers to pass on the costs of raw materials to customers, it does not eliminate Outokumpu's exposure to raw material price volatility. Financial risks related to raw materials and energy prices are described in note 5.3 to the consolidated financial statements. In addition, the production of stainless steel products and ferrochrome requires significant amounts of energy, particularly electricity, natural gas, and to a lesser extent, propane and fuel oil. Energy costs represent a substantial portion of Outokumpu's total cost of sales and energy prices have historically varied, and may continue to vary significantly, as a result of political and economic factors beyond Outokumpu's control.

Legal risks

In connection with its business activities Outokumpu may become subject to various legal claims and litigations. In addition to legal claims resulting from Outokumpu's daily business, Outokumpu is also exposed to typical litigation risks in connection with mergers and acquisitions. For further information on existing major litigations, please see note 6.1 to the financial statements.

Outokumpu's products are used in a wide range of applications. For instance, certain products are used in safety-critical applications in the oil, gas, chemical, and petrochemical industries. In addition, a part of Outokumpu's products are used in the automotive and aviation industries, where key customers require extensive third-party certification regarding the products purchased. Therefore, Outokumpu is exposed to product quality related liability claims. Such claims may result in severe damages, impacting Outokumpu's profitability. Outokumpu manages and mitigates its legal risks by running internal processes as well as governance and compliance programs and policies, some of which extending beyond the local minimum legal requirements.

Risks related to environmental regulation

The European Union's ambitious Emission Trading System (ETS) and respective trading system in the UK (UK ETS) present risk for Outokumpu, indirectly in electricity prices and directly in emission allowance costs. Outokumpu's European units cannot transfer these costs to product prices due to global competition. However, Outokumpu has secured part of its future electricity supply – and the associated prices – through long-term contracts. Furthermore, Outokumpu participates in the Fennovoima nuclear power project in Finland.

Outokumpu operates in accordance with the prevailing laws and regulations, including environmental, chemical, and product safety legislation. The EU Chemicals Strategy for Sustainability is a risk to the market for alloys as the target is to ban most harmful chemicals in consumer products. The approach is based on intrinsic hazard rather than risk. This can hamper the market of metal products, recycling of products and materials as well as the use of by-products. Compliance with environmental regulations increases costs and could impact Outokumpu's international competitive position. Outokumpu mitigates these impacts through the systematic identification and management of environmental, chemical, and product safety risks, initiatives to reduce emissions, and by maintaining a proactive dialog with stakeholders involved in the framing of environmental legislation.

Operational risks

Major disasters and business interruptions

Outokumpu's production processes are dependent on the continuous operation of critical production equipment, including smelters, furnaces, continuous casters, rolling mills, and electrical equipment, e.g. electric motors and transformers, and production downtime may occur as a result of unexpected mechanical failures. Operations may also be disrupted for a variety of other reasons, including fire, explosion, flooding, release of harmful substances to the environment or health, failures in information technology, strikes, or transportation disruptions.

Furthermore, accidents may lead to production downtimes that affect specific items of machinery or production plants, or possibly result in plant closures, including closure for the duration of any ongoing investigation. This type of disruption may cause significant business interruptions and have a negative impact on Outokumpu's profitability. Primarily because of the high temperatures required for production, fire is a significant risk for Outokumpu. Most of the production facilities are located in extensive industrial zones and a fire could lead to major damage to property and interruptions in production. Extreme weather conditions and natural disasters may also affect Outokumpu's operations, especially as a result of damage to property or the loss of production through extremely low temperatures, flooding, hurricane, tornado, or drought. Outokumpu monitors such risks by continuously evaluating its production facilities and production processes from a risk management perspective and also by arranging regular fire-safety and loss prevention surveys. Insurances cover a large proportion of the associated risks.

Environmental accidents

The main environmental accident risks at production sites relate to use of acids, hazardous waste, gases, landfill activities, gradually developing pollution and long-term contamination of soil or groundwater or effects of hazardous pollutants. Outokumpu also has environmental liabilities and risks at closed mines and production sites. Certified environmental management systems are in place at all production sites to manage the environmental accident risks in a systematic way, including external environmental audits. In addition, Outokumpu has an internal environmental auditing program to monitor and ensure local legal compliance and the level of environmental risk management.

Project risks

Outokumpu has (through a holding company Voimaosakeyhtiö SF) committed to a 14% stake in Fennovoima Oy, which has a parliamentary decision-in-principle to construct a new nuclear power plant in Pyhäjoki, Finland. The company has selected Rosatom Overseas CJSC as the plant supplier. Fennovoima Oy submitted a construction license application to the government in June 2015 and expected to receive the construction license by the end of 2021 but it has been delayed. As the project progresses slowly, there are uncertainties related to commercial operations to begin earliest in 2029. The project involves several risks for Outokumpu which are reviewed regularly, including project completion risks such as continued delays, cancellations, non-completion, technical risks, possible tightening nuclear safety regulations, financial risks such as budget overruns, non-competitive cost of power, financing risks, cost and availability of the financing, fair value of shareholding, political and public acceptance risks, and environmental risks. Considering the risks involved in the project, there can be no assurance that one or more of the project risks will not occur or that Fennovoima Oy will have adequate financing for the project in the event of any future defaults by the direct or indirect shareholders in Fennovoima Oy.

Outokumpu also faces project risks related to other ongoing investments in the Kemi mine expansion and the digital transformation project, which focuses on harmonizing business processes, including the ERP renewal. These and other ongoing investments and projects include similar project risks which Outokumpu manages through its project management process.

Cyber security risks and IT failure

Outokumpu relies on various applications and other information technologies that are used globally in all business areas and group functions. Unplanned interruptions or failures in these applications and underlying infrastructure could result in business interruptions, for example, in the production and supply chain processes. Furthermore, cyber threats and other security threats could cause leaks of sensitive information, theft of intellectual property, production outages or damage to Outokumpu's reputation.

Outokumpu is taking necessary steps to ensure that the IT systems, solutions and processes are efficient and reliable, and also aims to ensure secure information management and continuity at all company locations to avoid data loss or situations in which business critical information becomes unavailable. Moreover, Outokumpu continues to improve its cyber readiness in order to prevent possible cyber attacks, by running and initiating various security development activities based on the detailed cyber threat and risk exposure analyses.

Outokumpu continued the business transformation program to harmonize its enterprise level data, processes, and IT systems as well as to develop or enhance business capabilities.

Safety and personnel

Outokumpu has set its safety vision and principles at a high level. Safety takes priority over all other activities. All Outokumpu employees are responsible for their own safety, but also for the safety of their colleagues. Outokumpu strongly believes that all injuries can be prevented and the target is zero accidents. Furthermore, as a part of its strategy, Outokumpu has introduced ways of working to reach its short-term targets, we operate safely always being one of them, aiming at achieving a fully implemented, standardized and disciplined approach to safety that correlates with improved quality and operational efficiency, striving to be an industry leader.

Despite the ongoing efforts and actions, a serious incident or fatal accident may occur during working hours to Outokumpu employees or contractors. Outokumpu considers the risk of fatalities and serious injuries having a significant impact on its safety culture and its reputation as an employer. Moreover, Outokumpu believes that great focus and the systematic development of safety performance and safety culture will have a positive impact on operational performance and discipline. Improving the safety performance through driving the full implementation of our company standards and processes, with a focus on risk assessments and risk reduction plans in place on all sites in addition to implementation plans for other major company safety standards.

In the continued situation of the COVID-19 pandemic the safety function and operational teams have collaborated to create safety, hygiene and distancing rules and practices to look after the health of our employees, prevent the spread of the virus in the workplace and allow us to maintain production.

Outokumpu's ability to continue and grow its business as well as provide high-quality products depends, to a large extent, on the contributions made by its key personnel. The loss of key individuals or other employees who have specific knowledge of, or relationships with, trade customers in markets in which Outokumpu operates could have significant impacts on Outokumpu's business. If Outokumpu is unable to attract, retain, motivate, train, and develop qualified employees at all levels, it could have a material adverse effect on Outokumpu's business, financial condition and results of operations. There can be no assurance that Outokumpu will be able to retain such senior managers and other key employees. Outokumpu has implemented processes to attract and retain key employees in the Group. Implementation of leadership development programs and succession planning for key positions in the Group are also undertaken to maintain development opportunities and to ensure an adequate pipeline of talent to mitigate the potential loss of senior leaders.

Compliance, crime, and reputational harm

Outokumpu operates globally and its activities span multiple jurisdictions and complex regulatory frameworks at a time of increased enforcement activity and enforcement initiatives globally in areas such as competition law, anti-corruption and bribery, anti-money laundering, data protection (including EU GDPR compliance) and trade restrictions, including sanctions. Outokumpu's governance and compliance processes may not prevent breaches of law or governance standards. Outokumpu also faces the risk of fraud by its employees, external theft and crime, losses of critical research and development data, misconduct as well as violations by its sales intermediaries or other third parties or at its joint ventures and other companies in which it has an interest, particularly if it only has a minority stake and does not control accounting or other rules and protocols for the conduct of business.

Outokumpu's failure to comply with the applicable laws and other standards could subject it to fines, loss of operating licenses, loss of business, loss of management time and company focus, breach of its financing agreements, and reputational harm. Effective internal controls are necessary for Outokumpu to provide reliable financial reports and effectively prevent and detect fraud. If Outokumpu cannot provide reliable financial reports or prevent fraud, this could have a material adverse effect on its financial results. Additionally, at the operational level, individual employees may not comply with Outokumpu's statements, policies, instructions and guidelines and, as a result, may incur compliance costs (including fines) and cause reputational damage. Inadequate internal controls could also cause investors and other third parties to lose confidence in Outokumpu's reported financial information and risk management processes, which could have a material adverse effect on Outokumpu's business, financial condition and results of operations. Outokumpu's ethics and compliance program aims to prevent and mitigate compliance risks from occurring and is developed continuously. The compliance risk assessment forms the basis for the compliance action plan for the forthcoming year.

Financial risks

Key financial risks for Outokumpu are:

- changes in the prices of nickel, iron, molybdenum, energy and emission allowance;
- currency developments affecting the euro, the US dollar, the Swedish krona, and the British pound;
- interest rate changes connected with the euro, the Swedish krona and the US dollar;
- changes in levels of credit margins applied for Outokumpu;
- risk related to prices of equities and fixed-income securities;
- country and counterparty risk related to customers and other business partners, including financial institutions;
- risks related to liquidity and refinancing;
- breach of financial covenants or other terms and conditions leading to default;
- changes in fair value of equity investments in energy production.

The financial risks listed above and related risk mitigation activities are described in further detail in the note section 5 to the consolidated financial statements.

Sustainability and Corporate responsibility risks

Outokumpu has also identified its exposures in sustainability and corporate responsibility. Outokumpu is identifying the most material sustainability topics with materiality analyses that are conducted every three years. The most recent materiality analysis was done in 2021.

Protecting the climate

Climate change is one of the most urgent challenges the world is facing today. Outokumpu aims to protect the climate with our sustainable stainless steel. We are developing our operations to reach carbon neutrality by 2050. In December 2021 our new climate target was approved by the Science Based Targets initiative, which is that our CO_2 emissions will be reduced by 42% from the 2016 baseline by the 2030. We work closely with our customers to help them develop solutions that further decrease their carbon footprint and reduce burden on climate. The company focus' on and mitigates climate change physical and transition risks according to our commitment to the Business Ambition for 1.5 °C target and carbon neutral operations in 2050.

Outokumpu also evaluates its climate change related risks, including main production locations' exposures on several threats. These physical acute and chronic climate change threats and risks include e.g. flood, sea water level changes, exposures to hurricanes, tornadoes and severe storms, extreme weather conditions like lightning, rain or hail. 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 costs of lower emissions technology will become effective in the coming years. More and more customers are looking on sustainable products and we are working on our vision be customer's first choice in sustainable stainless steel. The risk of losing customers and market share is assessed; but the company's low carbon profile stainless steel also drives opportunities.

Environmental impacts

The main environmental business risks for Outokumpu are related to emissions trading schemes, new environmental and consumer protection demands, including changes in environmental legislation and the potential impact on Outokumpu's competitive position, as well as the risk of increased electricity prices and emissions costs due to the European Union's and UK's ambitious Emissions Trading System (ETS). Protecting the environment in the locations where we operate is our priority and a part of our license to operate. We have made significant investments in environmental protection over the past years, and we will continue to develop our processes even further. We aim to have a minimal impact on nature and biodiversity.

People, society and human rights

Outokumpu aims to actively identify risks and uncertainties related to its exposures in social responsibility, including human rights related topics. This applies to Outokumpu's own operations globally as well as supply chain and other business partners. In late 2021, the human rights risk assessment was conducted in accordance with the United Nations Guiding Principles on Business and Human Rights (UNGP) and most salient human rights issues were identified. 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. Most of Outokumpu's salient human rights issues are linked to sourcing activities, which includes both the production of the materials purchased, as well as their transport. Outokumpu takes seriously all identified human rights risks, labor practice violations and related threats as it insists on full transparency and compliance on human rights topics.

Circular economy

Outokumpu uses high amounts of recycled materials. Stainless steel is endlessly recyclable without any loss in quality. It is also the most efficient way to reduce the environmental impact of production processes enabling us to produce sustainable stainless steel. So, we continuously aim for higher recycling rates in our operations. Currently, Outokumpu's rate of recycled material content is the highest in the industry, over 90%.

Traceability and responsibility throughout the supply chain

Outokumpu is a part of a global supply chain by producing stainless steel for leading brands and demanding industries around the globe. Our customers expect us to provide a traceable supply chain and, therefore, we have in place stringent requirements on our suppliers, too. Outokumpu is reporting as part of it's carbon footprint the CO_2 emissions of their suppliers in form of utilities, consumables, raw materials and services.

Outokumpu is strongly committed to legal compliance and an ethical way of conducting business. Outokumpu's Code of Conduct sets out these ethical standards and provides guidelines for a common way of working. All suppliers and subcontractors must comply with our Code of Conduct and meet our Supplier Requirements. Outokumpu monitors its suppliers closely through self-assessment, screenings and audits.

Safety is one of the cornerstones in Outokumpu's strategy and ensuring the safety and good health of our employees is the first priority. In addition, Outokumpu takes all labor practice violations and related threats as well as its full transparency and compliance in environment, social and governance (ESG) topics seriously.

More information on sustainability and corporate responsibility is available in Sustainability review in the Annual report as well as on Outokumpu's website. ■

Information for shareholders

Annual General Meeting 2022

Outokumpu's Annual General Meeting will be held on Thursday, March 31, 2022 at 1.00 pm EEST at the company's head office at Salmisaarenranta 11, Helsinki, Finland. In order to prevent the spread of the COVID-19 pandemic, the Annual General Meeting will be held without shareholders' and their proxy representatives' presence at the meeting venue. Shareholders of the company and their proxy representatives can participate in the meeting and use shareholder rights only by voting in advance and by making counterproposals and presenting questions in advance in accordance with instructions in the notice to the Annual General Meeting and otherwise by the company.

Right to participate

Each shareholder, who is registered on the record date March 21, 2022 in Outokumpu's shareholder register held by Euroclear Finland Oy, has the right to participate in the Annual General Meeting.

Registration and advance voting

Registration for the meeting and advance voting will begin on March 11, 2022 at 12.00 pm, following the deadline for submitting counterproposals to be placed for a vote. A shareholder, who is registered in the shareholders' register of the company and who wants to participate in the Annual General Meeting, must register for the Meeting and vote in advance no later than March 25, 2022 by 4.00 pm EET by which time the registration and votes need to be received.

A shareholder, who has a personal Finnish book-entry account, may register and vote in advance on certain items on the agenda of the Annual General Meeting from March 11, 2022 at 12.00 until 4.00 pm EET on March 25, 2022 by the following means:

- at Outokumpu's Annual General Meeting website (please note that the Finnish personal identity code or business ID of the shareholder is needed for voting in advance and strong electronic identification with Finnish online banking credentials or mobile certificate of the shareholder or his/her representative),
- by mail to Innovatics Oy, AGM/Outokumpu Oyj, Ratamestarinkatu 13 A, 00520 Helsinki,
- by e-mail to agm.outokumpu@innovatics.fi.

In registering by mail or e-mail, a shareholder may send the advance voting form available on the Outokumpu's Annual General Meeting website on March 11, 2022 at 12.00 pm or corresponding information.

If the shareholder participates in the meeting by sending the votes in advance by mail or email to Innovatics Oy before the end of the registration and advance voting period, this constitutes registration for the Annual General Meeting, provided that the shareholder information required for registration is provided.

Holders of nominee registered shares

A holder of nominee registered shares has the right to participate in the Annual General Meeting by virtue of such shares, based on which he/she on the record date of the Annual General Meeting, March 21, 2022, would be entitled to be registered in the shareholders' register of the company held by Euroclear Finland Oy. Participation in the meeting also requires that the shareholder has been registered into the temporary shareholders' register held by Euroclear Finland Oy at the latest by March 28, 2022 by 10.00 am EET. This constitutes due registration for the Annual General Meeting.

A holder of nominee registered shares is advised to early enough request the necessary instructions regarding the registration in the temporary shareholders' register, the issuing of proxy documents and registration for the Annual General Meeting from his/her custodian bank.

More information

A complete notice to the Annual General Meeting and information on the voting, making counterproposals and presenting questions as well as information on the proxy representatives and powers of attorney and holders of nominee registered shares is available at Outokumpu's Annual General Meeting website.

Dividend proposal

The Board of Directors proposes to the Annual General Meeting that a dividend of EUR 0.15 per share will be paid for year 2021. The dividend will be paid to shareholders registered in the shareholders' register of the company held by Euroclear Finland Oy on the dividend record date April 4, 2022. The Board proposes that the dividend be paid on April 11, 2022.

Remuneration Report 2021

Remuneration Report 2021

Dear Shareholder,

on behalf of the Board, I am pleased to present Outokumpu's Remuneration Report for 2021.

This Remuneration Report has been prepared according to the Corporate Governance Code 2020, approved by the Board of Directors and will be presented to the Annual General Meeting in March 2022.

The report aims to present how Outokumpu rewarded the Board members and the President and CEO for 2021 in a clear and transparent way. The materialized remuneration is in line with the Remuneration Policy of the governing bodies of Outokumpu approved at the Annual General Meeting in 2020.

In the Annual General Meeting in 2021 two new Board Members were elected, Ambassador Päivi Luostarinen and Professor, Doctor Heinz Jörg Fuhrmann. Ambassador Luostarinen's vast experience in international relations, particularly in trade policy and economic cooperation, and Professor, Doctor Fuhrmann's longstanding experience in the global steel industry provide exceptional additions to the experience and capabilities of our Board of Directors.

In 2021, realized prices and continuous progress on Outokumpu's margin improvement actions supported the Group's profitability.

Our exceptional result is driven by a combination of strong market environment and Outokumpu's own decisive actions in strategy execution. Sustainability is at the core of Outokumpu's operations, and during the year Outokumpu committed to ambitious climate targets. Safety continues to be of high priority. For 2022 Outokumpu will start considering a wider range of sustainability targets in its incentive programs, starting with CO_2 emission reduction targets. Futher targets with regards to e.g., diversity will be worked out during 2022.

Based on these exceptional business results, the Board of Directors decided to pay a short-term incentive to the CEO which is higher than the defined limits in the Remuneration Policy, applying Section 5 of Outokumpu's Remuneration Policy. For the business year 2022, the regular incentive framework defined in our Remuneration Policy will be applied again.

The performance related long-term incentive plan called Performance Share Plan 2019–2021 did not reach the minimum requirement meaning there was no share delivery from this program.

Going forward, we will continue to review our remuneration arrangements to ensure they deliver on our goals for our shareholders and investors.

Kari Jordan
Chairman of the Board of Directors

Introduction – how remuneration relates to Outokumpu’s performance

Outokumpu’s Remuneration Policy 2020 sets the framework for the remuneration of the Board of Directors and the CEO.

The Remuneration Report 2021 follows the Finnish Corporate Governance Code and the applicable legislation.

The report presents how the policy has been applied in 2021 in the paid incentives and the alignment of remuneration with the successful delivery of the long-term strategy and sustainable business results.

Outokumpu’s remuneration has a guiding principle of Pay for Performance, for both the short- and long-term incentive plans, supporting Outokumpu’s long-term financial success and the achievement of its strategic goals. Outokumpu’s strategic mid-term financial targets are based on the performance in adjusted EBITDA and safety (TRIFR) in alignment with Outokumpu’s strategy.

Outokumpu’s Annual General Meeting was held on March 31, 2021. The meeting approved the Remuneration Report 2020 in an advisory vote. 164,152,422 shares and votes, representing approximately 39.42% of all shares and votes in the company, participated in the voting. 128,638,263 votes, representing approximately 78.37% of the votes cast, voted for the report and 35,514,159 votes, representing approximately 21.63% of the votes cast, voted against the report. 97,670 abstaining votes were recorded.

No considerations were presented to the company regarding the Remuneration Report 2020 in the procedure concerning the general meeting.

The actual remuneration paid in 2021 and reported here complies with the framework and principles set forth in the Remuneration Policy.

The current CEO Heikki Malinen started in May 2020, and his fixed remuneration has remained unchanged. No short-term nor long-term incentives were paid based on Outokumpu’s performance in 2020.

Two new members joined the Board of Directors in 2021: Ambassador Luostarinen and Professor, Doctor Fuhrmann.

Observing the excellent business results, the Board of Directors decided to reward the CEO with a short-term incentive exceeding the maximum level described in the policy.

The table on the right gives further insight in how the development of the Board member fees and CEO remuneration compares to the development of the average remuneration of employees and to Outokumpu’s financial development over the last five years.

The CEO’s actual paid remuneration is well aligned with the company’s performance development as visualized in the graphs on the right.

Development of remuneration and financial development over the past five years

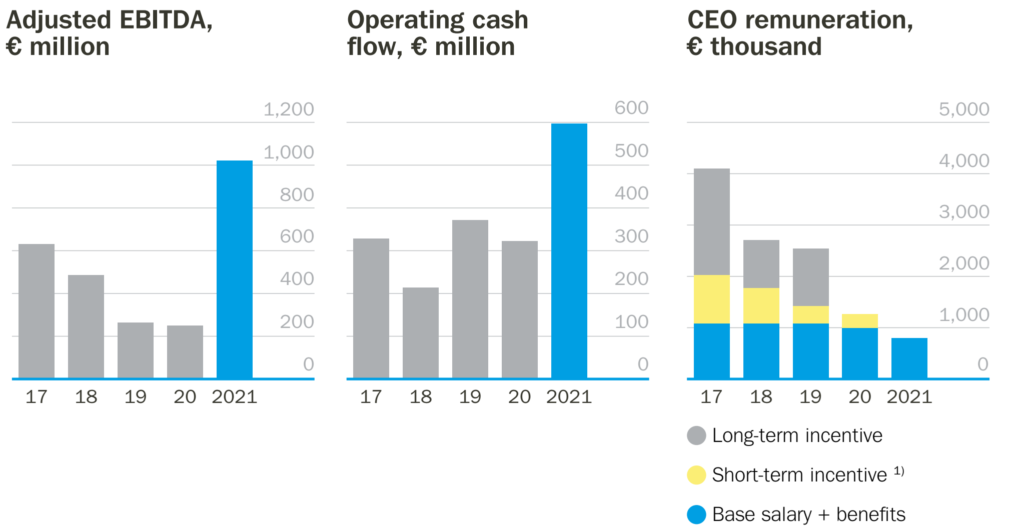
	2021	2020	2019	2018	2017
Board of Directors [1], €	**780,600**	658,400	705,800	576,200	617,315
CEO [2], €	**795,840**	1,264,729	2,534,480	2,705,913	4,104,317
Employees’ average [3], €	**59,448**	53,637	53,922	52,159	54,554
Adjusted EBITDA, € million	**1,021**	250	263	485	631

[1] Total remuneration paid to the Board of Directors, including annual remuneration and meeting fees for all members.

[2] Total remuneration paid to the CEO, including salary, employee benefits and incentives.

[3] Personnel expenses without indirect employee costs and termination benefits, divided by the average number of employees during the year. In 2017–2020, the headcount of the employees was used for the calculation. For 2021 onwards, the calculation is based on the full time equivalent (FTE). The average remuneration has increased due to the higher short-term incentives and long-term incentive accruals as well as increased overtime working.

Outokumpu performance and CEO remuneration in 2017–2021



[1] Paid short-term incentives have been included in the chart on the year when they have been paid. Usually, they relate to the performance in the previous year.

Remuneration Policy briefly

Remuneration Policy for the governing bodies briefly

The Remuneration Policy sets the framework for the remuneration principles of the governing bodies, i.e., the members of the Board of Directors and the CEO in Outokumpu with the successful delivery of Outokumpu's long-term strategy. The remuneration of the Board of Directors is decided by the Annual General Meeting based on the proposal by the Shareholders' Nomination Board. The adjacent table describes the content of the policy briefly.

Remuneration element, purpose, and link to strategy	Applied to	Key features of the policy
Fixed compensation Compensates for the job responsibilities and reflects the competencies, knowledge, and experience of the individual.	CEO	The fixed monthly salary is reviewed annually as part of the review of the CEO's total compensation package. The Board of Directors will consider various factors when determining changes in the fixed compensation, including individual contribution, business performance and alignment with external market levels.
Pension and other benefits May operate a defined contribution pension plan for the CEO with an annual insurance premium.	CEO	Supplementary pension plan rights are assessed based on payments. The current CEO is not eligible for the pension plan. Other benefits follow the applicable company policy as may be amended from time to time such as for example mobile phone, company car and housing benefits and insurance policies.
Fixed fee Ensures that Outokumpu can attract and retain Board members with the experience and skills necessary in a company and business of this size and complexity and its global competitive and complex business environment to enable to set and monitor the company strategy.	Board of Directors	The Shareholders' Nomination Board is responsible for presenting a proposal for remuneration of the members of the Board of Directors to the Annual General Meeting.
Short-term incentives Support the achievement of Outokumpu's annual financial, strategic targets.	CEO	Performance measures, weightings, and targets for the selected measures are set annually by the Board of Directors to ensure they support the strategy. These may change from year to year to reflect business priorities and typically include Outokumpu's financial performance, safety, and individual strategic targets. After year-end, the Board of Directors determines the extent to which each of the targets have been achieved and determines the final pay-out level.
Long-term incentives Align the interests with the shareholders and retain by creating a long-term equity interest. Promote shareholder value creation, performance culture the achievement of strategic targets on long-term.	CEO	Outokumpu's long-term incentive program consists of annually commencing long-term incentive plans with a three-year performance period. Performance measures, weightings, and targets are set by the Board of Directors to ensure they support the strategy and typically include financial measures. After the end of the performance period the Board of Directors measures the level of performance targets achieved and confirms the long-term earning (if any) attained.
Shareholding recommendation Ensures alignment of the interests of the President and CEO with that of shareholders.	CEO	The CEO should accumulate and, once achieved, hold a shareholding in Outokumpu corresponding to his/her annual gross base salary. The shareholding is expected to be accumulated out of rewards received under the share-based incentive schemes of Outokumpu.

Fees of the Board of Directors

Annual Fees

Annual remuneration, €	Annual remuneration, €	Meeting fee, €/ meeting
Chairman	163,000	600
Vice Chairman	91,600	600
Board Members	71,100	
Meeting held in the country of residence		600
Meeting held outside of the country of residence		1,200

In 2021, Outokumpu's Board members were compensated for their time commitment, knowledge and required experience to contributing the long-term financial performance and success of the company. Two new members joined the Board of Directors in 2021: Ambassador Luostarinen and Professor, Doctor Fuhrmann.

Outokumpu's Annual General Meeting 2021 approved the annual remuneration to be paid to the members of Outokumpu's Board of Directors. The Annual General Meeting 2021 decided that 40% of the annual remuneration will be paid in the company's own shares using treasury shares or shares to be purchased from the market at a price formed in public trading and in accordance with the applicable insider regulations. The annual fee is paid once a year and members of the Board are not entitled to any other share-based rewards. In addition to their annual remuneration, all the members of the Board of Directors are paid a meeting fee.

The Board members are not eligible for any pension schemes. The fees paid to the Board members are presented in the table below.

Remuneration and meeting fees of the Board of Directors in 2021

	Paid in 2021			
	Annual compensation			
€	Share portion	Cash portion	Meeting fees[1)]	Total
Kari Jordan, Chairman	66,243	96,757	12,600	**175,600**
Eeva Sipilä, Vice Chairman	37,226	54,374	12,000	**103,600**
Heinz Jörg Fuhrmann, Member [2)]	28,894	42,206	6,600	**77,700**
Kati ter Horst, Member	28,894	42,206	12,600	**83,700**
Päivi Luostarinen, Member[2)]	28,894	42,206	8,400	**79,500**
Vesa-Pekka Takala, Member	28,894	42,206	12,000	**83,100**
Pierre Vareille, Member	28,894	42,206	13,800	**84,900**
Julia Woodhouse, Member	28,894	42,206	21,400 [3)]	**92,500**
Total	**276,832**	**404,368**	**92,400**	**780,600**

[1)] Meeting fees have been entered in the table on the year when they have been paid and include committee meeting fees.

[2)] Appointed as a Board member March 31, 2021.

[3)] Meeting fees include 7,000 € meeting fees of the ESG (Environment, Social and Governance) Advisory Council.

Remuneration of the CEO

The remuneration of the CEO consists of base salary, benefits and an annually determined short-term incentive plan. In addition, the CEO participates in the company's long-term incentive plans that consist of individual performance share plans.

CEO's monthly base salary remained the same than in the previous year, and the base salary and benefits were EUR 795,840 in 2021.

CEO's short-term incentive annual earning opportunity remained unchanged at the target level of 50% and at the maximum level of 100% of the gross annual base salary. The short-term incentive paid for 2021 was based on the achievement of the pre-defined strategic targets for the financial year 2021, i.e., Outokumpu's adjusted EBITDA with the 80% weight and strategic projects with the 20% weight to drive profitability to support the company to implement its strategy.

The Board of Directors decided to reward the CEO with short-term incentive exceeding the maximum level described in the policy. The achievement of the adjusted EBITDA target was above maximum, and achievement of the strategic project target was on the target level, resulting to a short-term incentive payment of EUR 1,064,700.

The CEO participates also in the Performance Share Plan (PSP) 2019–2021. The pre-defined strategic target, the return on operating capital of Outokumpu for the period, was not achieved.

CEO Heikki Malinen started his employment in May 2020. In conjunction to this, short-term incentive targets 2020 were approved by the Board but the targets were not disclosed in the Remuneration Report 2020. The CEO was also granted PSP shares (prorated) from the following programs: PSP 2018–2020, PSP 2019–2021 and PSP 2020–2022. The share allotments were prorated observing the CEO's active time observing the start date in May 2020. Outokumpu did not reach the target levels for PSP 2018–2020 and 2019–2021, and subsequently no shares were delivered.

The performance share plans are covered by the following share ownership requirement applied by Outokumpu Group: the members of Outokumpu's Leadership Team, including the CEO, are expected to own Outokumpu shares received under the company's share-based incentive programs corresponding to the value of their annual gross base salary. Half (50%) of the net shares received from the share-based incentive programs must be used to fulfil the above ownership recommendation.

CEO Malinen has the right to retire at the age of 65 and he participates in the Finnish TyEL pension system and there are no supplementary pension plans in place. The service contract of the CEO is valid until further notice. The CEO is entitled to a severance payment of twelve (12) months, and the notice period is six (6) months for both parties.

Remuneration of the CEO

€	Heikki Malinen Accrued 2021, payable in 2022	Heikki Malinen 2021
Base salary and benefits	–	795,840, 100%
Short-term incentives[1]	1,064,700	0, 0%
Long-term incentives[2]	0	0, 0%
Total Remuneration		**795,840, 100%**
Long-term incentive plan	2019–2021	2018–2020
Maximum number of shares granted (gross)	97,000	43,000
Grant date	May 5, 2020	May 5, 2020
Number of shares earned (gross)	0	0
Number of shares delivered (net)	0	0
Share delivery date	–	–
Share price at delivery	–	–
Shareholding recommendation	100% of individual annual gross base salary	100% of individual annual gross base salary
Shared owned on Dec 31, 2021		45,459

[1] Paid short-term incentives have been entered in the table on the year when they have been paid. Usually, they relate to the performance in the previous year.

[2] The number of the shares payable as a long-term incentive represents a gross earning, from which the applicable payroll tax is withheld, and the remaining net value is paid to the recipient in shares.

CEO’s earning opportunity and performance measures in the short-term incentive plans

		Heikki Malinen	
Earning opportunity		(% of gross annual base salary)	
Threshold		0.5%	
Target		50%	
Maximum		100%	
Performance measures in 2021	Weight	Achievement	Payout [1]
Group EBITDA	80%	Over maximum	150%
Strategic projects	20%	Achieved	50%

[1] If the achievement of the group adjusted EBITDA target (as included in the management plan) is below threshold, the total short-term incentive payout is decided by the Board of Directors. Therefore, the payout for different targets can in such cases be less than their actual achievement.

CEO’s earning opportunity and performance measures in the long-term incentive plans

	PSP 2020–2022	PSP 2021–2023
Earning opportunity		
Threshold [1] [2]	22.2%	25%
Target [1] [3]	44.4%	50%
Maximum [1] [4]	66.7%	100%
Grant [5]	**130,451**	**168,800**
Payout year	2023	2024
Performance measures		
Performance criteria [6]	Return on operating capital compared to a peer group (Q4/2020–Q3/2022)	Return on capital employed (2023)
Weight	100%	100%
Achievement	Vesting period ongoing	Vesting period ongoing

[1] Expressed in percentage of gross annual base salary at the time of grant.

[2] The threshold is 50% of target in all PSP periods.

[3] The target of 50% of annual base salary is prorated to time in position during the performance period, i.e., 32/36 in PSP 2020–2022.

[4] The maximum is 150% of target in all PSP periods.

[5] Number of gross shares at target level. The number of shares was determined using the share price at the time of plan approval, i.e., EUR 2.66 for PSP 2020–2022 and EUR 2.31 for PSP 2021–2023

[6] The performance criteria for the PSP programs was changed from "Return on operating capital compared to a peer group" to "Return on capital employed" to put even more focus on the strategy execution.

Financial year 2021

Outokumpu's financial statements according to the ESEF regulation are published at www.outokumpu.com/reports

Download the Review by the Board of Directors and Financial statements as PDF

outokumpu

Review by the Board of Directors

Highlights 2021

Stainless steel deliveries were **2,395,000** tonnes (2,121,000 tonnes).

Adjusted EBITDA amounted to EUR **1,021** million (EUR 250 million).

EBITDA was EUR **1,009** million (EUR 191 million).

Operating cash flow amounted to EUR **597** million (EUR 322 million).

Net result was EUR **553** million (EUR –116 million).

The year 2021 was a great success for Outokumpu. In an exceptionally strong market environment, the company delivered its best financial results in recent history. Adjusted EBITDA exceeded the remarkable EUR 1.0 billion milestone and amounted to EUR 1,021 million, while net debt decreased to EUR 408 million. Strong earnings per share was also a highlight of the year. In 2021 the safety performance was strongest on record, and the annual total recordable injury frequency rate improved to 2.0.

During 2021, Outokumpu focused on de-risking the company, and as a result of the various actions, Outokumpu reduced its net debt to EBITDA ratio to 0.4. Also, credit rating agency Moody's recognized the good development and upgraded Outokumpu's credit rating twice last year. In November, Outokumpu increased its EBITDA run-rate improvement target to EUR 250 million and has now reached a cumulative impact of EUR 198 million. De-risking continues through the first phase of the strategy until the end of 2022.

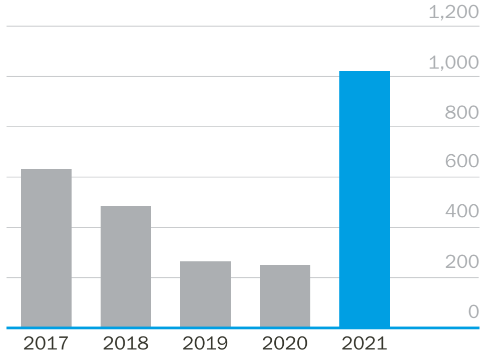
All business areas provided solid results in 2021 and development in realized stainless steel prices was favorable. The mills were running at full capacity throughout the year, and deliveries increased by 13% compared to the previous year. There have been logistical challenges throughout the year as global supply chains have been under pressure. Teams have worked very hard to overcome the difficulties.

In 2021, business area Europe's adjusted EBITDA reached EUR 485 million and deliveries increased by 7% compared to the previous year. In the exceptionally strong market, business area Americas' adjusted EBITDA rose to its highest level ever, EUR 297 million and deliveries increased by 26%. Also, business area Ferrochrome increased its adjusted EBITDA to EUR 246 million.

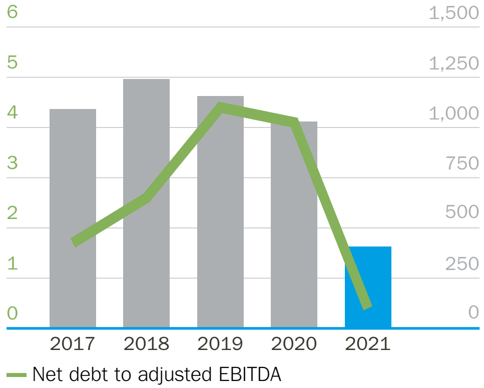
Sustainability has been a key focus area in 2021. Outokumpu is committed to the United Nations' Guiding Principles on Business and Human Rights. In particular, the company has invested time and resources to better understand and manage its supply chain by assessing its raw material suppliers starting with Brazil and followed by Guatemala, where the work continues. The results so far demonstrate the importance of this ongoing work. In 2022, the aim to conduct several supplier assessments in high-risk countries.

Outokumpu's updated and more ambitious climate targets have been approved by the Science Based Targets initiative (SBTi), and the targets are now aligned with keeping global warming below 1.5° degrees. Outokumpu is currently the only

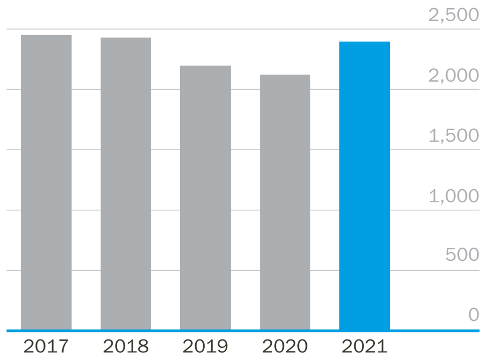
Adjusted EBITDA, € million



Net debt, € million, and net debt to adjusted EBITDA



Stainless steel deliveries, 1,000 tonnes



stainless steel producer to have its ambitious climate targets approved by the SBTi, and is firmly progressing on the path towards the vision of being the customer's first choice in sustainable stainless steel.

Managing COVID-19 pandemic

Safety is a key priority at Outokumpu and protecting the health and safety of the employees in the global COVID-19 pandemic continued in 2021.

The effects of the pandemic were twofold. Outokumpu had various safety measures in its sites and offices, while the rebound from the 2020 slowdown showed as increased deliveries and improved performance. The financial impacts of COVID-19 related mainly to the market rebound, and its impact on prices, order books and utilization rates were stronger than estimated. On the other hand, various restrictions have been in place, as the company has continued to do its utmost to safeguard the employees – working remotely, following social distancing as well as limiting traveling, face-to-face meetings, and visitor access to only the absolutely business critical instances.

Towards the end of 2021, the COVID-19 pandemic moved on to a point where the crisis was no longer steered centrally at the Group level. Instead, the situation is now managed at the local level within the company guidelines and local country rules. Nevertheless, the COVID-19 pandemic still remains a risk going forward.

Market development

According to CRU's latest estimates (November 2021), global apparent consumption of stainless steel flat products increased by 10.1% in 2021 compared to 2020. Global consumption of stainless steel has recovered strongly throughout 2021, supported by successful vaccination programs, supportive fiscal and monetary policy, and due to robust private consumption and high demand for durable goods containing stainless steel. The demand in EMEA and Americas grew by 10.8% and 25.5%, respectively, while the largest region APAC decreased by 8.5%.

Results

€ million	2021	2020
Sales	**7,709**	5,639
Adjusted EBITDA	**1,021**	250
Adjustments		
Litigation provisions	**–15**	–
Environmental provisions	**–10**	–
Gain on disposal of property	**12**	–
Restructuring costs	**–**	–59
EBITDA	**1,009**	191
EBIT	**705**	–55
Net result for the financial year	**553**	–116
Earnings per share, €	**1.26**	–0.28
Diluted earnings per share, €	**1.17**	–0.28
Adjusted EBITDA margin, %	**13.2**	4.4
Return on capital employed, %	**18.8**	–1.4

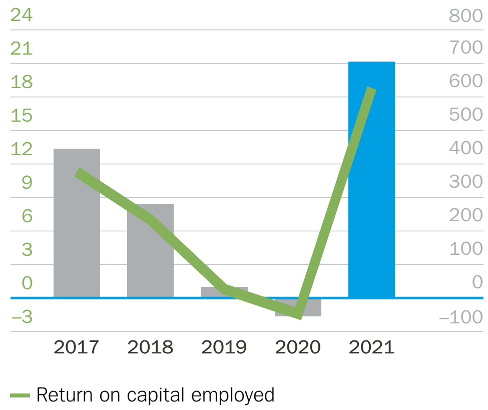
Outokumpu's sales grew by 37% compared to the previous year and amounted to EUR 7,709 million in 2021 (EUR 5,639 million). In the exceptionally strong market environment, adjusted EBITDA reached EUR 1,021 million (EUR 250 million). Total stainless steel deliveries grew by 13% and profitability was supported by higher realized prices for stainless steel in Europe and Americas, and a higher ferrochrome sales price. Fixed and variable costs increased from the previous year and profitability was especially impacted by significantly higher energy and consumable prices. In 2021, raw material-related inventory and metal derivative gains increased to EUR 76 million (losses of EUR 16 million), mainly due to positive timing impacts. Adjustment items in EBITDA totaled EUR –12 million and included an increase in litigation provisions, an increase in environmental provision related to closed mines in Finland, and a gain from property sales in Germany (EUR –59 million related to restructuring costs).

EBITDA amounted to EUR 1,009 million in 2021 (EUR 191 million) and EBIT increased to EUR 705 million (EUR –55 million). Adjustment items in EBIT totaled EUR –54 million (EUR –59 million), and in addition to adjustment items in EBITDA, they included single asset impairments in 2021. In 2021, net result increased to EUR 553 million (EUR –116 million).

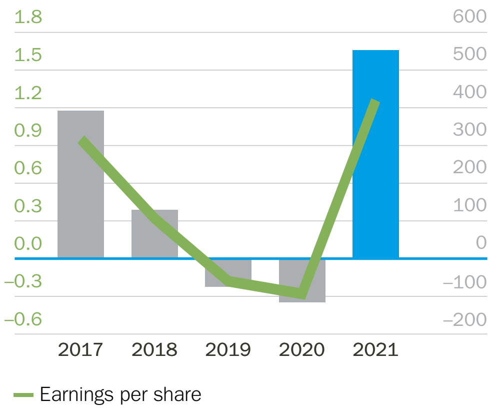
Strategy execution

Outokumpu launched a new strategy in November 2020 and set financial targets by the end of 2022. The targets included a EUR 200 million EBITDA run-rate improvement and a reduction of the net debt to EBITDA ratio to below 3.0. In November 2021, with the commitment to de-risk the company by the end of 2022, Outokumpu increased the initial EBITDA run-rate improvement target to EUR

EBIT, € million, and return on capital employed, %



Net result, € million, and earnings per share, €



250 million. The company continues to de-risk through the first phase of the strategy until the end of 2022. The strategy has three key focus areas: Lean & Agile Organization, Cost & Capital Discipline, and Commercial Excellence.

The closing of the year 2021 marked the one-year milestone in the first phase of Outokumpu's strategy. Outokumpu took various actions throughout 2021 to move forward in its strategy execution. More than 600 people from different functions and all areas of the business contributed, driving projects along through shared governance to collectively meet the commitment to the strategy. Projects focusing on efficiency in the usage of raw materials and consumables or ways to prioritize maintenance spend did not only deliver results in 2021 but changed the company's ways of working to ensure that the improvements are sustainable.

The cumulative EBITDA run-rate improvement amounted to EUR 198 million at the end of 2021. The impact was achieved through the execution of numerous small and medium-sized initiatives driven by all focus areas.

Looking ahead to 2022, Outokumpu is confident that it will reach its ambitions of EUR 250 million EBITDA run-rate improvement. The governance and ways of working in the company's strategy execution have been ingrained across the organization during the past year and the pre-validated initiative pipeline supports confidence to deliver against the increased target. Despite the already strong results in the Cost & Capital Discipline stream, it remains the focus area in 2022. Initiative ideation is largely focused on consumables consumption efficiency to mitigate inflationary pressure.

Financial position and cash flow

€ million	2021	2020
Net debt		
Non-current debt	**597**	1,153
Current debt	**112**	251
Cash and cash equivalents	**300**	376
Net debt	**408**	1,028
Net debt to adjusted EBITDA	**0.4**	4.1
Net cash generated from operating activities	**597**	322
Capital expenditure	**175**	180
Debt-to-equity ratio, %	**13.1**	43.6
Equity-to-assets ratio, %	**48.3**	40.8

Operating cash flow amounted to EUR 597 million in 2021 (EUR 322 million). In 2021, the increase in net working capital was EUR 266 million (decrease of EUR 247 million). The change in net working capital includes EUR 45 million of payments on the 2020 VAT deferral in Finland (EUR 61 million positive net impact from the VAT deferral). Inventories increased during 2021 and amounted to EUR 1,892 million at year-end (EUR 1,177 million). Approximately 60% of the annual inventory increase came from higher metal prices. Capital expenditure amounted to EUR 175 million in 2021 (EUR 180 million).

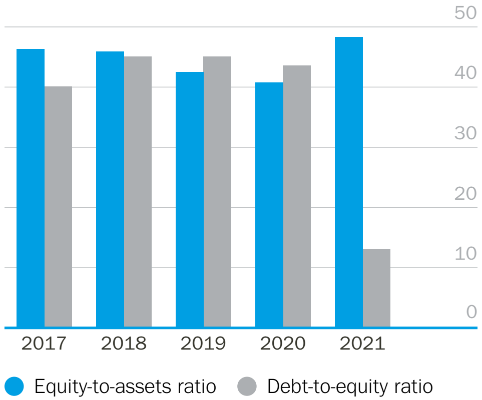
Net debt decreased to EUR 408 million during 2021 (EUR 1,028 million) and consequently gearing to 13.1% (43.6%). Net financial expenses were EUR 80 million in 2021 (EUR 98 million). Interest expenses amounted to EUR 65 million in 2021 (EUR 78 million).

Cash and cash equivalents were EUR 300 million on December 31, 2021 (EUR 376 million) and the overall liquidity reserves amounted to EUR 0.9 billion (EUR 1.0 billion). In addition to these reserves, Outokumpu has an unutilized EUR 42 million short-term portion of its main syndicated revolving credit facility available. The EUR 120 million Kemi mine facility was fully drawn at year-end. The outstanding commercial papers amounted to EUR 58 million on December 31, 2021 (EUR 231 million).

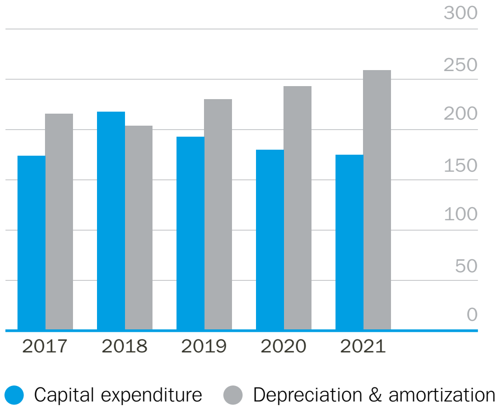
In April and in June, Outokumpu extended the maturities of its revolving credit facilities: the SEK 1,000 million facility was extended by one year until May 2023 and EUR 532 million facility by one year until May 2024. Both revolving credit facilities are fully unutilized. In May, Outokumpu carried out a private placement of 40,500,000 new shares and raised gross proceeds of EUR 209 million. With these proceeds Outokumpu prepaid EUR 210 million of its EUR 330 million term loan. The maturity for the remaining part of the loan was extended from June 2023 until May 2024.

In December, following the strong cash flow Outokumpu voluntarily redeemed its EUR 250 million fixed rate notes due in 2024 and prepaid EUR 70 million of the term loan and one of its pension loans amounting to EUR 56 million. Outokumpu also entered into a EUR 100 million secured revolving working capital facility with Finnvera Oyj. The facility is expected to be available for drawdown during the first quarter of 2022. In December, Outokumpu secured a GBP 390 million buy-in insurance contract with a pension insurer for its defined pension benefit scheme in the UK, impacting net pension assets as well as equity.

Equity-to-assets ratio and debt-to-equity ratio, %



Capital expenditure* and depreciation and amotization, € million



*Capital expenditure definition changed from accrual-based to cash-based capital expenditure in 2020. Figures for 2019 and 2018 have been restated accordingly. Figures for 2017 have not been restated.

Business areas

Outokumpu has four business areas which are also Group's operating segments. More information about the business areas can be found in note 2.1 in the consolidated financial statements.

Europe		2021	2020
Stainless steel deliveries	1,000 tonnes	**1,535**	1,440
Sales	€ million	**4,600**	3,568
Adjusted EBITDA	€ million	**485**	142
Adjustments to EBITDA	€ million	**12**	–47
EBITDA	€ million	**498**	95
Operating capital	€ million	**1,724**	1,573

Europe's sales increased to EUR 4,600 million in 2021 compared to EUR 3,568 million in 2020 and adjusted EBITDA increased to EUR 485 million (EUR 142 million). Stainless steel deliveries increased by 7% compared to the previous year. The 2021 result was positively impacted by significantly higher realized prices for stainless steel, but consumable prices and freight costs increased, as well. Raw material-related inventory and metal derivative gains were EUR 8 million in 2021 (losses of EUR 11 million). Adjustments to EBITDA included a gain of EUR 12 million from properties sold in Germany (EUR 47 million of restructuring costs relating to personnel reductions). In 2021, the share of EU cold-rolled stainless steel imports from third countries reached 27% remaining stable compared to previous year despite more sourcing from Asia in the second half of 2021. (Source: EUROFER, January 2022). Distributor inventories remained at a low level throughout 2021, given robust end-use demand.

Americas		2021	2020
Stainless steel deliveries	1,000 tonnes	**742**	588
Sales	€ million	**1,947**	1,195
Adjusted EBITDA	€ million	**297**	55
Adjustments to EBITDA	€ million	**–15**	–2
EBITDA	€ million	**283**	53
Operating capital	€ million	**879**	801

Americas' sales increased to EUR 1,947 million in 2021 (EUR 1,195 million). Adjusted EBITDA increased to EUR 297 million (EUR 55 million). Stainless steel deliveries increased by 26% in 2021. Profitability in 2021 was supported by significantly higher realized prices for stainless steel and the improved product mix, however consumable prices and freight costs increased, as well. Raw material-related inventory and metal derivative gains increased to EUR 55 million in 2021 (losses of EUR 1 million). Adjustment items in 2021 included EUR 15 million increase in litigation provisions. In 2021, US real demand increased by 21% compared to 2020 and the share of cold-rolled imports into the US was 18% and increased from previous year level (Source: American Iron & Steel Institute). Cold-rolled distributor inventories remained at a low level during 2021 but started to slightly increase at the end of the year.

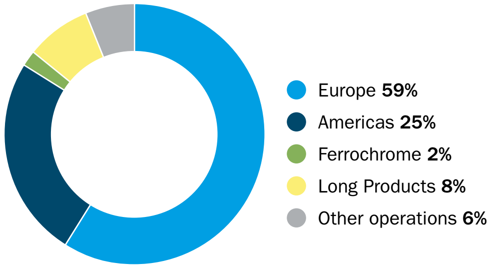
Ferrochrome		2021	2020
FeCr production	1,000 tonnes	**515**	498
Sales	€ million	**604**	411
Adjusted EBITDA	€ million	**246**	91
Adjustments to EBITDA	€ million	**–**	–1
EBITDA	€ million	**246**	90
Operating capital	€ million	**823**	766

Ferrochrome's sales amounted to EUR 604 million in 2021 (EUR 411 million). Adjusted EBITDA increased to EUR 246 million (EUR 91 million). Profitability was supported by a higher ferrochrome sales price, which was driven by the increased European benchmark price and Chinese spot market prices, slightly offset by a stronger EUR/USD exchange rate. Significantly increased electricity and reductant prices had a negative impact on profitability. The global ferrochrome supply market is overshadowed by uncertainties driven by availability and price of energy, environmental restrictions, and logistical disruptions.

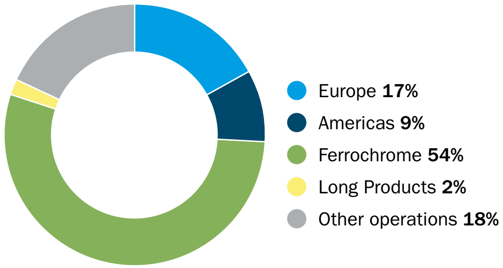
The finalization of the Kemi Mine expansion investment will be delayed by some six months due to an incident during hoisting shaft guide rope installation. The delay will not cause any risks regarding ore availability, and the costs of the investment are not expected to increase.

Long Products		2021	2020
Stainless steel deliveries	1,000 tonnes	**250**	175
Sales	€ million	**810**	493
Adjusted EBITDA	€ million	**47**	–8
Adjustments to EBITDA	€ million	**–**	–3
EBITDA	€ million	**47**	–11
Operating capital	€ million	**157**	133

Sales by business area, 7,709 € million



Capital expenditure by business area, 175 € million



Long Products' sales amounted to EUR 810 million in 2021 (EUR 493 million) and adjusted EBITDA amounted to EUR 47 million (EUR –8 million). Stainless steel deliveries increased by 43%, from both internal and external deliveries. Profitability was positively impacted by the improved product mix and higher realized prices for stainless steel. Energy and consumable prices were higher and also fixed costs increased as a result of higher sales volume and more maintenance. Raw material-related inventory and metal derivative gains were EUR 15 million compared to losses of EUR 3 million in 2020.

Non-financial development at Outokumpu

The information in this section fulfills the requirements in the EU Directive and the Finnish Accounting Act Chapter 3a on statement of non-financial information. Outokumpu is also reporting according to the EU taxonomy framework and with regard to the Task Force on Climate-related Financial Disclosures (TCFD) disclosure recommendations. The taxonomy reporting is based on the delegated act specifying the technical screening criteria under which certain economic activities qualify as contributing substantially to climate change mitigation and climate change adaptation.

Outokumpu is a leading global producer of stainless steel with world-class production assets in its key markets in Europe and the Americas, and a global sales and service network close to its international customers. Stainless steel is a significant contributor to building a sustainable world. Stainless steel is used in building and construction, infrastructure, appliances, transportation, and heavy industries. It is a strong, corrosion-resistant, hygienic, and aesthetic material with a high strength-to-weight ratio and no need for maintenance. Outokumpu's organization and businesses are presented in the company's annual report and in notes 2.1 and 6.3 of the consolidated financial statements.

Climate change is one of the three megatrends driving Outokumpu's business, together with economic and population growth and urbanization. The properties and the low carbon profile of Outokumpu's stainless steel can help customers to reduce their carbon footprint. Market for solutions enabling the transition into a low-carbon society will increase on the way to 2 degree or 1.5 degree scenarios for 2050 and give preference to low carbon profile companies such as Outokumpu.

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 transition scenario. Outokumpu has performed a stated policy scenario and sustainable development scenario analysis in line with the International Energy Agency Iron and Steel Technology Roadmap, 2020. The physical and transition risk of climate change are assessed and included in the general risk assessment and management of the company.

Outokumpu's business is based on a circular economy. About 90% of the raw material used in Outokumpu's stainless steel production is recycled. By converting scrap and metal waste into new products the company also protects virgin resources. Throughout the process, Outokumpu aims to minimize the environmental impact of its production. At the end of its long lifecycle, stainless steel is fully recyclable, without any loss of quality.

Outokumpu has an integrated production process, including the company's own chrome mine for one of the main raw materials of stainless steel, ferrochrome operations, melting, hot rolling and cold rolling, as well as finishing and service centers.

Outokumpu's production sites are often located in relatively small cities or towns. This means that Outokumpu is significant for the economies of small local communities and it is often one of the very few large private-sector employers in the area.

Sustainability strategy and material topics

Outokumpu's vision is to be the customer's first choice in sustainable stainless steel. Sustainability at Outokumpu is based on three aspects: environmental, social and governance, which all need to be in balance. Outokumpu introduced an updated sustainability strategy in May 2021 to further strengthen Outokumpu's position as the industry leader in sustainability.

As part of the new sustainability strategy, Outokumpu increased its greenhouse gas emission reduction target committing to the Science-Based Target initiative's (SBTi) 1.5 °C climate ambition. The new approved short-term Science Based Target on the way to 1.5°C target in 2050 is to reduce scope 1, 2 and 3 greenhouse gas emissions 42% per tonne stainless steel by 2030 from a 2016 base year.

Outokumpu regularly conducts a materiality analysis to map stakeholders' expectations and to assess business impact of the Group on sustainability. The materiality analysis was updated in 2021. According to the updated analysis, Outokumpu's focus areas for acceleration are emission and footprint reduction, circular economy and waste management, sustainable supply chain management and innovative technologies.

The company is a signatory of the United Nations Global Compact. Outokumpu is committed to the United Nations' Sustainable Development Goals, with a focus on the following six objectives: affordable and clean energy, decent work and economic growth, industry, innovation and infrastructure, responsible consumption and production, climate action and partnerships for goals.

Policies and principles of sustainability management

Outokumpu's Board of Directors approves Outokumpu's sustainability agenda and targets. On Group level, sustainability is managed by the Group sustainability team headed by Vice President – Sustainability, who reports to Chief Technology Officer responsible for Group sustainability. 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 are conducted in a responsible manner and that monitoring, data collection and reporting are duly carried out. All Outokumpu operating sites are certified according to quality ISO 9001 and environment ISO 14001 management systems. The functioning of the systems is monitored by both internal and external audits.

In May 2021, Outokumpu established a new ESG Advisory Council to support Outokumpu in continuous improvement in sustainability. The council consists of four external advisors. The council's role is to challenge and comment the company's ESG strategy, roadmap development and actions as well as facilitate dialogue and exchange of views between Outokumpu and its stakeholders. More information about the council can be found on Outokumpu's website.

During 2021 an internal and cross-functional ESG core team was also established. The team drives, develops and supports the implementation Outokumpu's sustainability strategy giving executive proposals and drafts for decisions to the Outokumpu's management who will then implement necessary actions. The team includes members from Group sustainability, procurement, communications, compliance, HR and safety functions.

The most important policies guiding Outokumpu's sustainability management are the Group's Code of Conduct, Corporate Responsibility Policy and the Policy on Environment, Health, Safety and Quality (EHSQ), all available on Outokumpu's website. Outokumpu's Code of Conduct defines the common ways of working in the Group and sets principles for conducting business in a legal, compliant, and ethical manner, including zero tolerance for corrupt practices and requiring compliance with applicable laws and regulations, including competition laws and trade sanctions regulations.

The Corporate Responsibility Policy describes the main principles and rules followed by Outokumpu in relation to the sustainable development of the economic, environmental, and social aspects. Outokumpu's EHSQ policy describes the company's commitment to continuous improvement in these fields, compliance with legislation in all areas the company operates in, and the fulfilment of stakeholder requirements to which the company subscribes. Outokumpu has also an Anti-Corruption Instruction providing detailed guidance on responsible business practices.

In addition to the EHSQ policy, Outokumpu has strict guidelines for safety through the Outokumpu Safety Principles and Health and Safety Standards. Additionally, Outokumpu has ten Cardinal Safety Rules that are a part of the company's operating principles.

Corporate statements, policies and instructions are the basis of the Outokumpu operating model in governance, risk, and compliance. Policies and instructions are implemented through internal communication, mandatory training and internal control mechanisms. Outokumpu has currently five key corporate policies, which need to be well known by everyone working for Outokumpu:

- Code of Conduct
- Cardinal Safety Rules
- Approval Policy
- Competition Law Compliance Policy
- Acceptable Use of IT Policy

The internal audit function flanked by external audits consistently monitors and tests adherence to corporate guidance and standards, while the sustainability organization follows-up on environmental performance and legality on a quarterly basis. Regular internal environmental audits by the Group's environmental team are performed based on an internal risk assessment.

Outokumpu monitors its suppliers through self-assessment, screenings and audits. Most of suppliers are also going through a monthly compliance screening for sanctions. The self-assessments and audits are based on Outokumpu's Supplier Requirements and focused on evaluating the suppliers' social and environmental responsibility and quality management. In raw material procurement, supplier's sustainability performance is assessed by sustainability platform EcoVadis.

Outokumpu complies with international, national, and local laws and regulations, and honors and is committed to international agreements concerning human and labor rights, such as International Bill of Human Rights and condemns the use of forced and child labor. In 2021, Outokumpu focused on implementing the UN Guiding Principles on Business and Human Rights.

All Outokumpu employees are free to join trade unions according to local rules and regulations. There is zero tolerance of any form of discrimination, whether it is based on ethnic origin, nationality, religion, political views, gender, sexual orientation, age or any other factor.

Outokumpu expects its suppliers and contractors to comply with applicable laws and regulations as well as Outokumpu's Code of Conduct and to meet the company's Supplier Requirements. Outokumpu aims to ensure that modern slavery or human trafficking plays no part in its supply chain or in any part of the business.

Outokumpu has in place Supplier Requirements that set the minimum level for suppliers regarding sustainability and ethical standards, safety, environmental considerations, quality management and other criteria. In 2021, Outokumpu published an amendment to the Supplier Requirements for raw material suppliers.

More information about Outokumpu's sustainability related risks can be found in the section Risks and uncertainties.

Sustainability targets

The Group's main sustainability targets are:

Environmental

- Reducing scope 1, 2 and 3 greenhouse gas emissions 42% per tonne of stainless steel by 2030 on 2016 base year*). The new short-term Science Based Target on the way to 1.5°C target in 2050 replaces the former target on reducing scope 1, 2 and 3 greenhouse gas emissions 20% per ton stainless steel by 2023 from a 2014–2016 base period. (* The target boundary includes biogenic emissions and removals from bioenergy feedstock.)
- Increasing recycled material content to 92.5% by 2023 (all metallic input from

waste streams, such as scrap, scales or metals from slag and dust treatment per tonne stainless steel).

- Improving energy efficiency by 0.5% each year by 2030.
- Reducing the landfilled production waste other than slag by 0.5% each year by 2023.

Social

- Achieving total recordable injury rate of <2.2 per million working hours in 2021. The Group's long-term target is to achieve zero-level in injuries.
- High engagement rate in the annual Organizational Health Index survey.
- A regular performance development discussion held with all employees in applicable countries.

Governance

- All employees trained on Outokumpu's Code of Conduct.

Outokumpu's long-term target is to achieve carbon neutrality by 2050 in scope 1 (direct) and 2 (indirect) emissions. Currently, Outokumpu is the only stainless steel producer with an approved short-term Science Based Target towards the 1.5-degree scenario following the general rules of the initiative until the stainless steel sectoral decarbonization approach is available.

Environmental performance

The main environmental impacts from stainless steel production are the use of virgin materials, direct and indirect energy, dust emissions into the air, waste created in the production process and water discharges from production plants.

Outokumpu uses efficient dust-filtering systems that remove 99% of particles, and water is reused in production as much as possible and treated on production sites. In addition to material efficiency through using as much recycled material as possible, Outokumpu aims to reduce landfill waste and reuses waste from its production processes in its own production. Outokumpu also aims to increase the use of its by-product slag from its production outside the company for example in road construction, concrete production and water treatment.

In 2021, the use rate of slag (all slag compared to the used and landfilled slag) was 79% (77%). The total amount of slag increased by 7% compared to last year but more slag could be used. On top of production waste, tailing sand from mining is the most significant waste item to be deposited in the mine site. Landfilled waste intensity decreased. Although stainless steel production increased compared to the previous year, less waste was generated and about the same amount of waste as in the previous year was deposited.

The level of material recycling (all metallic input from waste streams, such as scrap, scales or metals from slag and dust treatment per tonne stainless steel) was at 90.1% (92.5%).

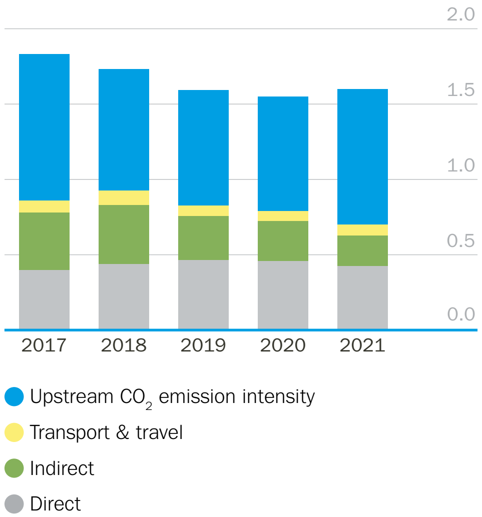
The improvement of the energy efficiency calculated as a sum of different process steps was very high with 6.1% compared to the previous year.

In 2021, CO_2 intensity reduced by about 14% from baseline period 2014–2016 and reached 72% of the targeted reduction by 2023.

All Outokumpu sites have environmental permits that set the basic framework for production operations. In 2021, emissions and effluents remained within permitted limits, and the 15 minor breaches in operations that occurred were temporary, identified, and had no or only a minimal impact on the environment. There were no significant environmental incidents.

Outokumpu's operations under the EU Emissions Trading Scheme (ETS) will continue to receive free emissions allocations according to efficiency-based benchmarks and historical activity for the next five years. In 2021, the ETS free emission allowances of Outokumpu

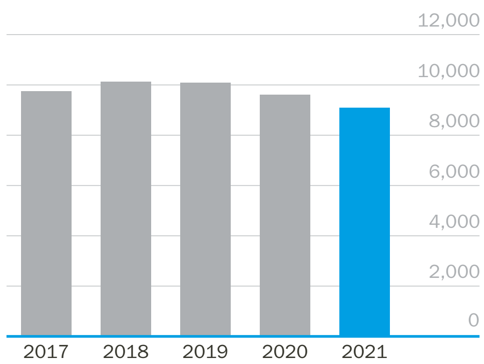
Outokumpu's CO_2 emission intensity, tonnes of CO_2 per tonne steel



Environmental indicators

	2021	2020
Scope 1, 2 and 3 (direct and indirect) CO_2 emission intensity, tonnes per tonne of stainless steel	**1.60**	1.55
Energy intensity, GJ per tonne stainless steel	**9.9**	11.0
Use rate of slag, including slag from ferrochrome production, %	**78.6**	77.1
Total landfill waste intensity, tonnes per tonne stainless steel	**0.517**	0.590
Recycled material content, %	**90.1**	92.5

Personnel on December 31



Personnel reported as full time equivalent number.

were below emissions within the ETS system, 1.0 million tonnes (1.0 million tonnes in 2020).

Outokumpu is not a party to any significant legal or administrative proceedings concerning environmental issues, nor is it aware of any realized environmental risks that could have a material adverse effect on its financial position.

Social performance

Outokumpu's main indicator for safety performance is the total recordable injury frequency rate (TRIFR), which includes fatal accidents, lost-time injuries, restricted work injuries, and medically treated injuries per million working hours. Group TRIFR improved from the previous year and was 2.0 against the target of <2.2 (2.4).

Outokumpu's personnel on full-time equivalent basis decreased by 506 during the year and totaled 9,096 at the end of December 2021 (2020: 9,602 and 2019: 10,078). Total wages and salaries amounted to EUR 557 million in 2021 (2020: EUR 547 million, 2019: EUR 568 million). Indirect employee benefit expenses totaled EUR 154 million in 2021 (2020: EUR 188 million, 2019: EUR 206 million).

Finnwatch, a Finnish NGO, published in February 2021 a report on Outokumpu's supply chain in Brazil. As a result of the report, Outokumpu took several actions to further develop the monitoring of its suppliers and to increase the transparency of its sourcing. Outokumpu's policies were reviewed according to the UN Guiding Principles on Business and Human Rights (UNGP). Outokumpu's Supplier Requirements were updated and an amendment for raw material suppliers was also published. Outokumpu conducted an on-site review with an external third party to one of its suppliers in Brazil. In 2021, the human rights risk assessment was conducted in accordance with the UNGP, and most salient human rights issues were identified.

Outokumpu encourages everyone to raise their concerns. All available reporting channels are detailed in the Code of Conduct, including the SpeakUp channel which is an externally operated communication channel to report misconduct confidentially and anonymously, if allowed by laws and regulations. The SpeakUp channel is available as a communication channel in Outokumpu's reporting process if other reporting channels do not feel suitable.

Outokumpu follows the number of potential misconducts as an indicator for its performance in matters related to anti-corruption, bribery and human rights. In 2021, 40 reports of potential misconduct were recorded through the various reporting channels. These incidents have been assessed, and if needed further investigated. Proper corrective and preventative actions have been or will be taken as a consequence. During 2021 the internal process for managing misconduct reports and investigations has been reviewed and redefined, partly in anticipation of the new legislations based on the EU Directive on whistleblower protection.

During 2021, the implementation of Outokumpu's ethics and compliance program continued in close co-operation with the leadership, business areas and Group functions. As part of these efforts, the revision of the core element of the program, Code of Conduct, was finalized and the revised Code of Conduct was implemented in 2021 with a mandatory e-learning for all Outokumpu employees together with various internal and external communications. In addition, efforts were continued to be made in competition law compliance, know your business partner and data protection areas in several ways, such as by process improvements, update of documentation and through various trainings and communications. Furthermore, communications on other ethics and compliance topics, such as anti-corruption, were made throughout the year. As part of these activities the importance of daily ethical decision making and responsible business practices, owned by all employees at Outokumpu, were highlighted.

Key social indicators

	2021	2020
Diversity		
Employees		
male, %	**84**	84
female, %	**16**	16
Managers		
male, %	**84**	84
female, %	**16**	16
Board of Directors		
male, %	**50**	50
female, %	**50**	50
Safety		
Total recordable injury frequency rate, per million working hours	**2.0**	2.4

EU taxonomy reporting

Companies required to report non-financial information need to disclose the taxonomy eligibility of their economic activities for year 2021. EU taxonomy is a classification system for categorization of sustainable business activities that could substantially contribute to the EU's environmental goals. Non-financial companies are required to disclose the share of their revenue (sales), and capital and operational expenditure associated with environmentally sustainable economic activities as defined in the EU Taxonomy Regulation (2020/852). For year 2021, companies are only required to report the proportion of their economic activities that are eligible, i.e. in scope of the regulation. For 2022, also the proportion of aligned economic activities need to be reported. Aligned economic activities means that the activity meets the criteria for sustainable economic activities that has been established by the Regulation and its delegated acts.

Outokumpu's approach to the EU taxonomy for the financial year 2021 was to assess which of its economic activities are included and listed in the taxonomy to define the taxonomy-eligibility of Outokumpu's sales, capital expenditure and restricted operating expenditure. Outokumpu representatives from finance, sustainability and business functions investigated the activities in relation to EU taxonomy, resulting in the identification of the eligible and non-eligible activities. Based on this analysis the taxonomy activity 3.9, manufacturing of iron and steel, was identified as an eligible economic activity for climate change mitigation. Production of ferrochrome is not eligible and thus is reported non-eligible activity. The key performance indicators were calculated using the consolidated financial information and further accounting policies are disclosed after the key performance indicator table below.

Taxonomy key performance indicators

2021	Total € million	Eligible %	Non-eligible %
Sales	7,709	89	11
Capital expenditure	155	39	61
Restricted operating expenditure	669	86	14

Outokumpu has defined the taxonomy key performance indicators as follows:

- Taxonomy sales is presented in accordance with IFRS, in line with the sales in the Group's consolidated financial statements. The manufacturing of iron and steel is listed as an eligible economic activity, i.e. covered by the taxonomy (EU taxonomy economic activity 3.9). This means that the main part of Outokumpu's economic activities and sales are eligible. The main items of sales that have been considered non-taxonomy-eligible include sales of ferrochrome, raw materials, other services, and energy.
- Taxonomy capital expenditure is presented and measured as cash-based, in line with the capital expenditure presented in the Group's financial statements. Taxonomy capital expenditure consists of purchases of property, plant and equipment and intangible assets, other than emission allowances. Leases and equity investments at fair value through other comprehensive income have been excluded from the amount. Capital expenditure associated with taxonomy-eligible economic activities has been considered eligible. Capital expenditure related to business area Ferrochrome and directly to corporate functions have been considered non-eligible. Currently plans to expand taxonomy-aligned economic activities, plans to allow the activities to become taxonomy-aligned, or individual measures enabling the target activities to become low-carbon have not been separately taken into consideration.
- Taxonomy restricted operating expenditure consists of expenses relating directly to maintenance and servicing of assets as well as research and development expenses. Of the total taxonomy restricted operating expenditure, the part supporting taxonomy-eligible economic activities has been considered eligible. Expenses related to business area Ferrochrome and corporate functions have been considered non-eligible. Research and development expenses have been included in full and considered eligible except for the part relating to ferrochrome manufacturing. In corporate functions, there were no research and development expenses in 2021. Scrap sourcing is not included in the figures for restricted operating expenditure, as scrap is a raw material for Outokumpu. However, the logistics and handling of scrap, especially the scrap produced internally as by-product, could be considered an action which helps Outokumpu in achieving the 70% minimum share of recycled raw material content that is set as a criterion for alignment in the delegated act for climate change mitigation. For this reporting, Outokumpu has chosen the conservative approach not to include these costs.
- The preparation of the key performance indicators requires management to make judgements, estimates and assumptions on eligible economic activities, capital expenditure allocated to those activities and related operating expenditure. Only one taxonomy-eligible economic activity has been considered in the calculations, together with one environmental objective, eliminating the risk of double counting relating to different activities or objectives. There are still considerable uncertainties regarding the requirements and guidelines provided by the EU, and Outokumpu continues to develop its calculations and definitions as new information becomes available.

Outokumpu continues to assess taxonomy alignment and will report on that in 2023. As a principle, the share of aligned economic activities can be the same or lower than the share of eligible economic activities. While the stainless steel manufacturing at Outokumpu meets the scrap input threshold of 70% required for a substantial contribution to climate change mitigation, a full assessment of the Do No Significant Harm principles and the compliance with the minimum safeguards will be performed in 2022 which will have an impact on the alignment level.

Research and development

Research and development (R&D) ensures that the partners inside and outside of Outokumpu receive exceptional value through leading technical expertise. Shaping the future by developing breakthrough innovations as well as enabling a sustainable future are the key parts of the R&D mission. Outokumpu has three R&D centers located in Avesta, Sweden, in Krefeld, Germany and in Tornio, Finland. R&D activities are focused on two R&D must win battles: sustainable production process technologies and future products and customer applications. In 2021, R&D expenditure totaled EUR 14 million, 0.2% of net sales (2020: EUR 21 million and 0.4%, 2019: EUR 17 million and 0.3%).

R&D programs related to sustainable production process technologies are focusing on development and implementation of technologies to reduce our CO_2 footprint and to improve the process efficiency and capabilities. R&D programs related to the future products and customer applications are focusing on developing new steel grades and improving existing grades for new applications. The focus is lying on the Pro product family for demanding end-use and offering sustainable solutions for high customer satisfaction.

Risks and uncertainties

Outokumpu operates in accordance with the risk management policy approved by the company's Board of Directors. The policy defines the objectives, approaches and areas of responsibility in the Group's risk management activities. Supporting Outokumpu's strategy, the aim of risk management is to identify, evaluate, mitigate, control and report risks from shareholders' and other stakeholders' point of view such as customers, suppliers, financiers, regulators and employees.

Outokumpu has defined risk as anything that could have an adverse impact on achieving the Group's objectives. Risks can therefore be threats, uncertainties or lost opportunities connected with current or future operations. More information on risks and mitigation activities can be found in Key risks section in the Annual Report, whereas Outokumpu's risk management and internal control processes and governance is described in the Corporate Governance Statement.

Strategic and business risks

Outokumpu's key strategic and business risks include: risks and uncertainties relating to the development of overcapacity of global stainless steel production, volatility of raw material and end product prices and availability; risks and uncertainties implementing new IT systems and processes; opportunities to improve operational reliability, drive competitiveness and further improve financial performance; the risk of trade defense measures initiated by the EU not being effective, adverse changes in the global political and economic environment; risks and uncertainties related to developments in the stainless steel and ferrochrome markets and competitor actions; changes in the prices of nickel, iron and molybdenum, energy and emission allowance impacting cash flow; fluctuations in exchange rates affecting the global competitive environment in stainless; and the risk of litigation or adverse political action or changes in legislation and environmental regulations affecting trade.

Operational risks

Key operational risks for Outokumpu include: a major fire or machinery breakdown causing business interruption; cyber security risks and IT failure; risks related to supply chain, raw material sourcing in high-risk countries and certain critical supplier dependencies; and investment and project implementation risks. Operational risks also include inadequate or failed internal processes, employee actions, systems, or events such as natural catastrophes, and misconduct or crime. These risks are often connected with production operations, logistics, financial processes, major investment projects, other projects or information technology and, should they materialize, can lead to personal injury, liability, loss of property, interrupted operations, or environmental and reputational impacts. Outokumpu's operational risks are partly covered by insurance. To minimize the possible damage to property and business interruption that could result from a fire occurring at some of its major production sites, Outokumpu has systematic fire safety and loss prevention surveys in place.

Environmental and climate change related risks

The main environmental business risks for Outokumpu are related to emissions trading schemes; new environmental and consumer protection demands, including changes in environmental legislation and the potential impact on Outokumpu's competitive position; as well as the risk of increased electricity prices and emissions costs due to the EU's and UK's ambitious Emissions Trading Systems (ETS).

The main environmental accident risks at production sites relate to the use of acids, the production of hazardous waste and toxic gases, landfill activities, long-term contamination of soil or groundwater, and the long-term effects of hazardous pollutants. Outokumpu also has some potential environmental liabilities and risks at closed mines and production sites.

Outokumpu also evaluates its climate change related risks, including main production locations' exposures on several threats. These physical acute and chronic climate change threats and risks include e.g. flood, sea water level changes, exposures to hurricanes, tornadoes and severe storms, extreme weather conditions like lightning, rain or hail. 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 costs of lower emissions technology will become effective in the coming years. More and more customers are looking on sustainable products and we are working on our vision to be customer's first choice in sustainable stainless steel. The risk of losing customers and market share is assessed; but the company's low carbon profile stainless steel also drives opportunities.

Safety and personnel-related risks

The main risks related to safety and personnel are the risk of fatalities, serious injuries and continued COVID-19 pandemic to Outokumpu's own employees and contractors, which would also have a significant impact on the safety culture and the company's reputation as an employer; the loss of key individuals or other employees who have specific knowledge of, or relationships with, trade customers in markets in which Outokumpu operates; and the risk of being unable to attract, retain, motivate, train, and develop qualified employees at all levels, which could have a material adverse effect on Outokumpu's business, financial condition, and operational results.

Risks related to compliance, crime and reputational harm

Outokumpu operates globally and its activities span multiple jurisdictions and complex regulatory frameworks at a time of increased enforcement activity and enforcement initiatives globally in areas such as competition law, anti-corruption and bribery, anti-money laundering, data protection (including EU GDPR compliance); and trade restrictions, including sanctions. Outokumpu also faces the risk of fraud by its employees, external theft and crime, losses of critical research and development data, misconduct, as well as violations by its sales intermediaries or other third parties or at its joint ventures and other companies.

Social responsibility related risks

Outokumpu aims to actively identify risks and uncertainties related to its exposures in social responsibility, including human rights related topics. This applies to Outokumpu's own operations globally including supply chain and other business partners. In late 2021, the human rights risk assessment was conducted in accordance with the United Nations Guiding Principles on Business and Human Rights (UNGP) and most salient human rights issues were identified. Outokumpu takes seriously all identified human rights risks, labor practice violations and related threats as it insists on full transparency and compliance on human rights topics.

Financial risks

Key financial risks for Outokumpu are: changes in the prices of nickel, iron, molybdenum, energy and emission allowance; currency developments affecting the euro, the US dollar, the Swedish krona, and the British pound; interest rate changes connected with the euro, the Swedish krona and the US dollar; changes in levels of credit margins applied for Outokumpu; risk related to prices of equities and fixed-income securities; country and counterparty risk related to customers and other business partners, including financial institutions; risks related to liquidity and refinancing; breach of financial covenants or other terms and conditions leading to default; and changes in fair value of equity investments in energy production. The financial risks listed above and related risk mitigation activities are described in further detail in note 5 to the consolidated financial statements.

Short-term risks and uncertainties

Outokumpu continues to focus on mitigating its exposure to risks which present uncertainties to its business and operations, including but not limited to: impacts from the continued COVID-19 pandemic; increases and volatility in energy prices; cyber security risks and IT failures; the risk of business interruption at Outokumpu's production and distribution locations; delays or failures in Outokumpu's supply chain, such as impacts from the global supply chain challenges and including risk in overall price and availability of critical raw materials and supplies; the shortage of spare parts and logistical challenges; dependencies on certain critical suppliers; raw material sourcing in high-risk countries; changes in the prices of ferrochrome, nickel, electrical power, and CO_2 emission allowances; currency developments affecting the euro, US dollar, Swedish krona, and pound sterling; the realization of credit losses from customer receivables; negative impacts on the amount of defined pension benefit assets and liabilities; changes in interest margins applicable to Outokumpu; risks related to the fair value of shareholdings, such as the investment in the Fennovoima project as well as general project and investment implementation risks, including the ongoing project at the Kemi mine.

Possible further adverse changes in the global political and economic environment and their impact on demand for stainless steel may all have an impact on Outokumpu's business and access to financial markets, including COVID-19 related risks, uncertainty surrounding the sustainability of US economic growth, the global inflation outlook, geopolitical tensions related to Ukraine, the risk of unfair trade practices by third countries and ineffective trade defence measures by the EU against them as well as the environmental-social governance risk.

Significant legal proceedings

Claim in Spain related to the divested copper companies

Outokumpu divested all of its copper business in 2003–2008. One of the divested companies, domiciled in Spain, later faced bankruptcy. The administrator of the bankruptcy estate filed a claim against Outokumpu Oyj and two other non-Outokumpu companies for recovery of payments made by the bankrupt company in connection with the divestment. In 2014, the court of first instance in Spain accepted the claim of EUR 20 million brought against Outokumpu and the two other companies. In 2018, the Court of Appeal ruled the case in favor of Outokumpu. Finally, in March 2021, the Spanish Supreme Court ruled the case in favor of Outokumpu and released the company from all claims and liabilities. All legal cases against Outokumpu related to the recovery have now been closed.

Dispute over payment of wages in the US

A class of plaintiffs, consisting of 152 former and 126 current Outokumpu Calvert mill employees, has brough suit against Outokumpu in U.S. federal court with allegations of failure to pay full wages for regular work and overtime work they performed. In November 2021, the court entered a default judgment against Outokumpu with respect to liability as a sanction for alleged misconduct during the discovery phase of the legal proceeding. The process to finally determine the damages is pending in the court. Outokumpu does not consider the potential financial impact of the case material for the Group as a whole.

Shares and share capital

On December 31, 2021, Outokumpu Oyj's share capital was EUR 311 million, and the total number of shares was 456,874,448. At the end of the year, Outokumpu held 4,302,471 treasury shares. The adjusted average number of shares outstanding in 2021 was 438,871,175.

Principal shareholders and share price development is presented in the Stakeholder engagement section in the Annual report.

Management shareholdings and share based incentive programs

On December 31, 2021, the members of the Board of Directors and the members of the Outokumpu Leadership Team (OLT) altogether held 921,817 shares, or 0.20% of the total number of shares.

Outokumpu has established share-based incentive programs for the OLT members, selected managers and key employees. which include a Performance Share Plan and Restricted Share Pool for key employees. In 2021, after deductions for applicable taxes, a total of 69,765 shares were delivered to the participants of the programs based on the conditions of the programs. Outokumpu used its treasury shares for the reward payments.

The Performance Share Plan and the Restricted Share Pool Program are currently ongoing for the periods 2020–2022 and 2021–2023, and their continuation for the period 2022–2024 was approved by the Board of Directors in December 2021. The Performance Share Plan for all three periods focuses on earning criteria that measures Outokumpu's profitability and the efficiency with which its capital is employed. More details on the share-based incentive programs can be found in the note 3.4 in the consolidated financial statements.

The members of OLT and Board of Directors are introduced in the Corporate Governance Statement included in the Annual report and at Outokumpu website: https://www.outokumpu.

com/en/investors/governance. Their shareholding is also presented in the Corporate Governance Statement and remuneration in the note 3.2 in the consolidated financial statements. Remuneration report is also included in the Annual report.

Corporate governance

Outokumpu's Corporate Governance Statement can be found on the Outokumpu website: https://www.outokumpu.com/en/investors/governance

Annual General Meeting

Outokumpu's Annual General Meeting 2021 was held on March 31, 2021, at the company's head office in Helsinki, Finland, under special arrangements due to the COVID-19 pandemic. The Annual General Meeting supported all the Board of Directors' and the Shareholders' Nomination Board's proposals and approved the company's remuneration report in an advisory vote. The Annual General Meeting approved the financial statements and discharged the management of the company from liability for the financial year 2020. The Annual General Meeting also approved the proposals of the Shareholders' Nomination Board regarding the members of the Board of Directors and their remuneration.

The Annual General Meeting decided that no dividend will be paid for the financial year that ended on December 31, 2020 and authorized the Board of Directors to repurchase the company's own shares and to decide on the issuance of shares as well as special rights entitling to shares.

The Annual General Meeting decided in accordance with the proposal by the Nomination Board that the Board of Directors consists of 8 members. The Annual General Meeting re-elected the current members of the Board of Directors Kati ter Horst, Kari Jordan, Eeva Sipilä, Vesa-Pekka Takala, Pierre Vareille and Julia Woodhouse and elected Heinz Jörg Fuhrmann and Päivi Luostarinen as new members for the term of office ending at the end of the next Annual General Meeting. Kari Jordan was re-elected as the Chairman and Eeva Sipilä re-elected as the Vice Chairman of the Board of Directors.

Changes in the Outokumpu Leadership Team

In June, Outokumpu appointed Tamara Weinert as President of business area Americas. She had been the Acting President of the business area and a member of Outokumpu Leadership Team since October 2020.

Nomination Board

Outokumpu's Shareholders' Nomination Board consists of the representatives of the four largest shareholders registered in the shareholder register of the company following Nasdaq Helsinki's last trading day in August. The Nomination Board has been established to annually prepare proposals on the composition of the Board of Directors and director remuneration for the Annual General Meeting.

On August 31, 2021 the four largest shareholders of Outokumpu were Solidium Oy, Ilmarinen Mutual Pension Insurance Company, Varma Mutual Pension Insurance Company and The Social Insurance Institution of Finland.

The shareholders appointed the following representatives to the Nomination Board: Antti Mäkinen, Managing Director at Solidium Oy, Jouko Pölönen, President and CEO at Ilmarinen Mutual Pension Insurance Company, Pekka Pajamo, CFO at Varma Mutual Pension Insurance Company, and Outi Antila, Director General at The Social Insurance Institution of Finland. In addition, Kari Jordan, Chairman of the Board of Directors of Outokumpu, acts as an expert member of the Nomination Board.

The Nomination Board submitted its proposals to Outokumpu's Board of Directors on December 2, 2021.

Board of Directors' proposal for profit distribution

According to Outokumpu's dividend policy, the dividend pay-out ratio throughout a business cycle shall be in a range of 30–50% of the Group's net income. According to the parent company's financial statements on December 31, 2021 distributable funds totaled EUR 2,560 million, of which retained earnings were EUR 228 million.

The Board of Directors proposes to the Annual General Meeting to be held on March 31, 2022 that a dividend of EUR 0.15 per share will be paid for year 2021.

Outlook for Q1 2022

Group stainless steel deliveries in the first quarter are expected to increase compared to the fourth quarter.

The European ferrochrome benchmark price remained stable at USD 1.80/lb for the first quarter. Higher stainless steel prices are reflected in the already received orders and more than offset the increase in energy and consumable prices. COVID-19 remains a risk and could potentially impact operations and logistics.

Adjusted EBITDA in the first quarter of 2022 is expected to be on a similar or higher level compared to the fourth quarter.

Group key figures

		2021	2020	2019 [1]	2018	2017
Scope of activity						
Sales	€ million	**7,709**	5,639	6,403	6,872	6,356
– change in sales	%	**36.7**	–11.9	–6.8	8.1	11.7
– exports from and sales outside Finland, of total sales *	%	**96.6**	96.3	95.9	96.7	96.5
Capital employed on Dec 31 *	€ million	**3,744**	3,543	3,904	4,086	3,929
Capital expenditure [2] *	€ million	**175**	180	193	218	174
– in relation to sales	%	**2.3**	3.2	3.0	3.2	2.7
Depreciation and amortization	€ million	**259**	243	230	204	216
Impairments	€ million	**45**	3	3	12	1
Research and development costs	€ million	**14**	21	17	15	13
– in relation to sales	%	**0.2**	0.4	0.3	0.2	0.2
Personnel on Dec 31 [3]	FTE	**9,096**	9,602	10,078	10,118	9,748
– average for the year	FTE	**9,372**	10,000	10,329	10,100	9,994
Personnel on Dec 31	headcount	**9,395**	9,915	10,390	10,449	10,141
Profitability						
Adjusted EBITDA *	€ million	**1,021**	250	263	485	631
– in relation to sales	%	**13.2**	4.4	4.1	7.1	9.9
EBITDA *	€ million	**1,009**	191	266	496	663
EBIT *	€ million	**705**	–55	33	280	445
– in relation to sales	%	**9.1**	–1.0	0.5	4.1	7.0
Result before taxes	€ million	**640**	–151	–41	175	327
– in relation to sales	%	**8.3**	–2.7	–0.6	2.5	5.1
Net result for the financial year	€ million	**553**	–116	–75	130	392
– in relation to sales	%	**7.2**	–2.1	–1.2	1.9	6.2
Return on equity *	%	**20.1**	–4.7	–2.8	4.8	15.4
Return on capital employed *	%	**18.8**	–1.4	0.8	7.0	11.3

		2021	2020	2019 [1]	2018	2017
Financing and financial position						
Net debt *	€ million	**408**	1,028	1,155	1,241	1,091
– in relation to sales	%	**5.3**	18.2	18.0	18.1	17.2
Net financial expenses *	€ million	**80**	98	80	107	127
– in relation to sales	%	**1.0**	1.7	1.3	1.6	2.0
Interest expenses *	€ million	**65**	78	76	70	92
– in relation to sales	%	**0.8**	1.4	1.2	1.0	1.5
Net debt to adjusted EBITDA *		**0.4**	4.1	4.4	2.6	1.7
Share capital	€ million	**311**	311	311	311	311
Total equity	€ million	**3,120**	2,360	2,562	2,750	2,721
Equity-to-assets ratio *	%	**48.3**	40.8	42.5	45.9	46.3
Debt-to-equity ratio *	%	**13.1**	43.6	45.1	45.1	40.1
Net cash generated from operating activities	€ million	**597**	322	371	214	328

Alternative performance measures are marked with *. For more information, please see Alternative Performance Measures section.

[1] IFRS 16 – Leases has been adopted on January 1, 2019 using the modified retrospective approach. Comparative information has not been restated.

[2] Capital expenditure definition changed from accrual-based to cash-based capital expenditure in 2020. Figures for 2019 and 2018 have been restated accordingly. Figures for 2017 have not been restated.

[3] In 2021, Outokumpu changed its main personnel amount measure from headcount to full-time equivalent personnel.

Alternative performance measures

Certain financial key figures and ratios presented in Outokumpu's Annual Report are not measures of financial performance, financial position or cash flows under IFRS and are therefore considered as alternative performance measures. These measures are not defined by IFRS and therefore may not be directly comparable with financial measures and ratios used by other companies, including those in the same industry. The reason for presenting these measures is that either they are statutory requirements applicable to the Annual Report of the Group or the management believes that these measures provide meaningful supplemental information on the underlying business performance or financial position of the Group. These financial measures should not be considered in isolation from, or as a substitute for, financial information presented in compliance with IFRS. Alternative performance measures are marked with * in the Group key figures table.

Key figure	Definition of the key figure or source in the consolidated financial statements		2021	2020
Exports from and sales outside Finland				
Exports from and sales outside Finland is an indicator of the international nature of the Group's business.				
Sales	Consolidated statement of income	€ million	**7,709**	5,639
Sales by destination to Finland	Note 2.2 Revenue	€ million	**259**	208
Exports from and sales outside Finland	Sales – Sales by destination to Finland	€ million	**7,450**	5,431
– exports from and sales outside Finland, of total sales	Comparison to sales	%	**96.6**	96.3
Capital employed				
Capital employed is a measure for the amount of capital invested in Group's operations.				
Capital employed is the sum of:				
Total equity	Consolidated statement of financial position	€ million	**3,120**	2,360
Net debt	Defined later in this section	€ million	**408**	1,028
Defined benefit and other long-term employee benefit obligations	Consolidated statement of financial position	€ million	**309**	329
Net interest rate derivative liabilities	Note 5.4 Derivative instruments	€ million	**–**	–6
Net accrued interest expenses	Note 4.5 Trade and other receivables and payables	€ million	**6**	11
Less:				
Defined benefit plan assets	Consolidated statement of financial position	€ million	**–**	64
Equity investments at fair value through other comprehensive income	Consolidated statement of financial position	€ million	**24**	48
Investments at fair value through profit or loss	Consolidated statement of financial position	€ million	**28**	26
Investments in associated companies	Consolidated statement of financial position	€ million	**43**	38
Capital employed on Dec 31		€ million	**3,744**	3,543

Key figure	Definition of the key figure or source in the consolidated financial statements		2021	2020

Operating capital

Operating capital is a measure for the amount of capital invested in Group's operations. It is used as a measure for the business areas' net assets.

Capital employed on Dec 31	Defined earlier in this section	€ million	**3,744**	3,543
Net deferred tax asset on Dec 31	Note 2.1 Operating segments	€ million	**221**	257
Operating capital on Dec 31	Capital employed – Net deferred tax asset	€ million	**3,523**	3,286

Capital expenditure

Capital expenditure indicates the investment in assets to generate future cash flows for the Group.

Capital expenditure	Purchases of property, plant and equipment and intangible assets, other than emission allowances; investments in equity at fair value through other comprehensive income and associated companies, and acquisitions of businesses	€ million	**175**	180
– in relation to sales	Comparison to sales	%	**2.3**	3.2

Adjusted EBITDA, EBITDA, and EBIT

Adjusted EBITDA is Outokumpu's main performance indicator in financial reporting. The adjustments to EBITDA relate to material income and expense items of unusual nature, and their purpose is to improve comparability of financial performance between reporting periods. EBITDA and EBIT are also measures of financial performance of the Group.

EBIT	Consolidated statement of income	€ million	**705**	–55
– in relation to sales	Comparison to sales	%	**9.1**	–1.0
Depreciation and amortization	Note 2.3 Cost of sales and selling and general administrative expenses	€ million	**259**	243
Impairments	Note 2.4 Other operating income and expenses	€ million	**45**	3
EBITDA	EBIT + depreciation and amortization + impairments	€ million	**1,009**	191
Adjustments to EBITDA	Note 2.1 Operating segment	€ million	**–12**	–59
Adjusted EBITDA	EBITDA – Adjustments to EBITDA	€ million	**1,021**	250
– in relation to sales	Comparison to sales	%	**13.2**	4.4

Key figure	Definition of the key figure or source in the consolidated financial statements		2021	2020

Return on equity

Return on equity is an indicator of the value the Group generates to the capital the shareholders have invested in the Group.

Total equity on Dec 31 of previous year	Consolidated statement of financial position	€ million	**2,360**	2,562
Total equity on March 31		€ million	**2,455**	2,605
Total equity on June 30		€ million	**2,809**	2,525
Total equity on Sept 30		€ million	**3,040**	2,449
Total equity on Dec 31	Consolidated statement of financial position	€ million	**3,120**	2,360
Total equity (4-quarter average)	Average of the opening and 4 quarter-end values	€ million	**2,757**	2,500
Net result for the financial year	Consolidated statement of income	€ million	**553**	–116
Return on equity	Net result for the financial year / Total equity (4-quarter average)	%	**20.1**	–4.7

Return on capital employed

Return on capital employed is a measure for the value the Group generates to the capital invested in its operations.

Capital employed on Dec 31 of previous year	Defined earlier in this section	€ million	**3,543**	3,904
Capital employed on March 31		€ million	**3,701**	4,006
Capital employed on June 30		€ million	**3,851**	3,939
Capital employed on Sept 30		€ million	**3,906**	3,707
Capital employed on Dec 31	Defined earlier in this section	€ million	**3,744**	3,543
Capital employed (4-quarter average)	Average of the opening and 4 quarter-end values	€ million	**3,749**	3,820
EBIT	Consolidated statement of income	€ million	**705**	–55
Return on capital employed	EBIT / Capital Employed (4-quarter average)	%	**18.8**	–1.4

Key figure	Definition of the key figure or source in the consolidated financial statements		2021	2020

Net debt

Net debt is a measure for the level of debt financing in the Group. The reduction of net debt is a key priority for the Group.

Non-current debt	Consolidated statement of financial position	€ million	**597**	1,153
Current debt	Consolidated statement of financial position	€ million	**112**	251
Cash and cash equivalents	Consolidated statement of financial position	€ million	**300**	376
Net debt	Non-current + current debt – cash and cash equivalents	€ million	**408**	1,028
– in relation to sales	Comparison to sales	%	**5.3**	18.2

Net financial expenses and interest expenses

Net financial expenses and interest expenses are measures for the cost of Group's financing.

Net financial expenses	Total financial income and expenses in the Consolidated statement of income	€ million	**80**	98
– in relation to sales	Comparison to sales	%	**1.0**	1.7

Interest expenses	Consolidated statement of income	€ million	**65**	78
– in relation to sales	Comparison to sales	%	**0.8**	1.4

Net debt to Adjusted EBITDA

Net debt to Adjusted EBITDA is an indicator of the Group's indebtedness.

Net debt	Defined earlier in this section	€ million	**408**	1,028
Adjusted EBITDA	Defined earlier in this section	€ million	**1,021**	250
Net debt to Adjusted EBITDA	Net debt / Adjusted EBITDA		**0.4**	4.1

Key figure	Definition of the key figure or source in the consolidated financial statements		2021	2020

Equity-to-assets ratio

Equity-to-assets ratio shows the proportion the Group's assets financed with equity. The equity-to-assets ratio indicates the financial risk level of the Group.

Total equity	Consolidated statement of financial position	€ million	**3,120**	2,360
Total assets	Consolidated statement of financial position	€ million	**6,482**	5,797
Advances received	Note 4.5 Trade and other receivables and payables	€ million	**27**	7
Equity-to-assets ratio	Total equity / (Total assets – advances received)	%	**48.3**	40.8

Debt-to-equity ratio

Debt-to-equity ratio or gearing is an indicator of the financial risk level and the indebtedness of the Group.

Net debt	Defined earlier in this section	€ million	**408**	1,028
Total equity	Consolidated statement of financial position	€ million	**3,120**	2,360
Debt-to-equity ratio	Net debt / Total equity	%	**13.1**	43.6

Share-related key figures

		2021	2020	2019	2018	2017
Earnings per share [1) 2)]	€	**1.26**	–0.28	–0.18	0.32	0.95
Diluted earnings per share [1) 2)]	€	**1.17**	–0.28	–0.18	0.32	0.90
Cash flow per share [2)]	€	**1.36**	0.78	0.90	0.52	0.79
Equity per share [1) 3)]	€	**6.89**	5.70	6.19	6.70	6.59
Dividend per share	€	**0.15** [4)]	–	–	0.15	0.25
Dividend payout ratio [1)]	%	**12.3**	–	–	47.4	26.3
Dividend yield	%	**2.7**	–	–	4.7	3.2
Price/earnings ratio [1)]		**4.37**	neg.	neg.	10.00	8.15
Development of share price						
Average trading price	€	**4.96**	2.66	3.01	5.39	8.11
Lowest trading price	€	**3.36**	2.08	2.23	3.18	6.61
Highest trading price	€	**6.01**	4.44	4.04	8.26	10.05
Trading price at the end of the period	€	**5.50**	3.22	2.81	3.20	7.74
Change during the period	%	**70.8**	14.8	–12.2	–58.7	–9.0
Change in the OMX Helsinki index during the period	%	**18.3**	10.1	13.4	–8.0	6.4
Market capitalization at the end of the period [5)]	€ million	**2,489**	1,327	1,155	1,312	3,194
Development in trading volume						
Trading volume [6)]	1,000 shares	**880,092**	1,100,628	884,254	826,636	1,021,607
In relation to weighted average number of shares [2)]	%	**200.5**	265.9	215.0	201.1	247.7
Adjusted average number of shares [2) 5)]		**438,871,175**	413,907,618	411,198,002	411,065,622	412,363,204
Diluted average number of shares [2) 5)]		**479,163,509**	437,336,296	446,209,235	447,181,306	450,247,639
Number of shares at the end of the period [5)]		**452,571,977**	412,002,212	411,774,715	410,563,719	412,671,549

1) IFRS 16 – Leases has been adopted on January 1, 2019 using the modified retrospective approach. Comparative information has not been restated.

2) Reported based on share-issue-adjusted average number of shares. Comparative information for 2020 is presented accordingly. Information for 2019–2017 has not been restated.

3) 2020 and 2019 calculated based on the share-issue-adjusted number of shares. 2018 and 2017 have not been restated.

4) The Board of Directors' proposal to the Annual General Meeting.

5) Excluding treasury shares.

6) Includes only Nasdaq Helsinki trading.

Definitions of share-related key figures

Earnings per share = $$\frac{\text{Net result for the financial year attributable to the equity holders}}{\text{Adjusted average number of shares during the period}}$$

Cash flow per share = $$\frac{\text{Net cash generated from operating activities}}{\text{Adjusted average number of shares during the period}}$$

Equity per share = $$\frac{\text{Equity attributable to the equity holders}}{\text{Adjusted number of shares at the end of the period}}$$

Dividend per share = $$\frac{\text{Dividend for the financial year}}{\text{Adjusted number of shares at the end of the period}}$$

Dividend payout ratio = $$\frac{\text{Dividend for the financial year}}{\text{Net result for the financial year attributable to the equity holders}} \times 100$$

Dividend yield = $$\frac{\text{Dividend per share}}{\text{Adjusted trading price at the end of the period}} \times 100$$

Price/earnings ratio (P/E) = $$\frac{\text{Adjusted trading price at the end of the period}}{\text{Earnings per share}}$$

Average trading price = $$\frac{\text{EUR amount traded during the period}}{\text{Adjusted number of shares traded during the period}}$$

Market capitalization at end of the period = Number of shares at the end of the period × Trading price at the end of the period

Trading volume = Number of shares traded during the period, and in relation to the weighted average number of shares during the period

Non-financial indicators

Environmental indicators	2021	2020	2019	2018	2017
Scope 1, 2 and 3 (direct and indirect) CO_2 emission intensity, tonnes per tonne of stainless steel	**1.60**	1.55	1.61	1.72	1.84
Energy intensity, GJ per tonne stainless steel	**9.9**	11.0	10.9	10.1	9.3
Use rate of slag, including slag from ferrochrome production, %	**78.6**	77.1	90.8	89.9	91.1
Total landfill waste intensity, tonnes per tonne stainless steel	**0.517**	0.590	0.500	0.472	0.361
Recycled material content, %	**90.1**	92.5	89.6	88.6	87.0

Social indicators	2021	2020	2019	2018	2017
Diversity					
Employees					
male, %	**84**	84	85	85	86
female, %	**16**	16	15	15	14
Managers [1)]					
male, %	**84**	84	84	n/a	n/a
female, %	**16**	16	16	n/a	n/a
Board of Directors					
male, %	**50**	50	57	67	71
female, %	**50**	50	43	33	29
Safety					
Total recordable injury frequency rate, per million working hours	**2.0**	2.4	3.2	4.1	4.4

[1)] Manager diversity data is not available for 2018 or 2017.

Financial statements

Consolidated financial statements, IFRS

Parent company financial statements, FAS

Consolidated statement of income

€ million	Note	2021	2020
Sales	2.2	**7,709**	5,639
Cost of sales	2.3	**–6,732**	–5,403
Gross margin		**977**	236
Other operating income	2.4	**49**	22
Selling and marketing expenses	2.3	**–67**	–68
Administrative expenses	2.3	**–185**	–196
Research and development expenses	2.3	**–14**	–21
Other operating expenses	2.4	**–55**	–28
EBIT		**705**	–55
Share of results in associated companies	6.4	**15**	2
Financial income and expenses	2.5		
Interest income and other financial income		**7**	3
Interest expenses		**–65**	–78
Market price gains and losses		**–3**	–10
Other financial expenses		**–19**	–13
Total financial income and expenses		**–80**	–98
Result before taxes		**640**	–151
Income taxes	2.6	**–87**	34
Net result for the financial year		**553**	–116
Earnings per share attributable to the equity holders of the Company	2.7		
Earnings per share, €		**1.26**	–0.28
Diluted earnings per share, €		**1.17**	–0.28

Earnings per share figures are calculated based on the share-issue-adjusted weighted average number of shares. Comparative information is presented accordingly. Net result for the financial year is fully attributable to the equity holders of the company.

Consolidated statement of comprehensive income

€ million	Note	2021	2020
Net result for the financial year		**553**	–116
Other comprehensive income			
Items that may be reclassified to profit or loss:			
Exchange differences on translating foreign operations			
Change in exchange differences		**92**	–86
Cash flow hedges [1]	5.4		
Fair value changes during the financial year		**–1**	–8
Reclassification to profit or loss		**27**	–5
Income taxes	2.6	**–6**	0
Items that will not be reclassified to profit or loss:			
Remeasurements of defined benefit plans	3.3		
Changes during the financial year		**–72**	–12
Income taxes	2.6	**26**	4
Equity investments at fair value through other comprehensive income	5.6		
Fair value changes during the financial year		**–44**	4
Share of other comprehensive income in associated companies	6.4	**0**	0
Other comprehensive income for the financial year, net of tax		**22**	–104
Total comprehensive income for the financial year		**574**	–221

[1] The presentation of fair value changes reclassified to inventory has been changed in 2021 from other comprehensive income to movement in equity. Comparative information is presented accordingly.

Total comprehensive income for the financial year is fully attributable to the equity holders of the company.

Consolidated statement of financial position

€ million	Note	2021	2020
ASSETS			
Non-current assets			
Intangible assets	4.1, 4.3	**577**	610
Property, plant and equipment	4.1, 4.2	**2,573**	2,631
Investments in associated companies	6.4	**43**	38
Equity investments at fair value through other comprehensive income	5.6	**24**	48
Derivative financial instruments	5.4	**–**	6
Deferred tax assets	2.6	**222**	264
Defined benefit plan assets	3.3	**–**	64
Trade and other receivables	4.5	**5**	1
		3,444	3,663
Current assets			
Inventories	4.4	**1,892**	1,177
Investments at fair value through profit or loss		**28**	26
Derivative financial instruments	5.4	**31**	17
Trade and other receivables	4.5	**786**	537
Cash and cash equivalents	5.1	**300**	376
		3,038	2,134
TOTAL ASSETS		**6,482**	5,797

€ million	Note	2021	2020
EQUITY AND LIABILITIES			
Equity attributable to the equity holders of the Company			
Share capital		**311**	311
Premium fund and other restricted reserves		**717**	717
Invested unrestricted equity reserve		**2,308**	2,103
Fair value reserves		**–96**	–49
Retained earnings		**–120**	–721
Total equity	5.2	**3,120**	2,360
Non-current liabilities			
Non-current debt	5.1	**597**	1,153
Derivative financial instruments	5.4	**2**	–
Deferred tax liabilities	2.6	**1**	7
Employee benefit obligations	3.3	**309**	329
Provisions	4.6	**63**	84
Trade and other payables	4.5	**23**	45
		994	1,618
Current liabilities			
Current debt	5.1	**112**	251
Derivative financial instruments	5.4	**40**	32
Provisions	4.6	**29**	31
Current tax liabilities		**21**	6
Trade and other payables	4.5	**2,166**	1,500
		2,368	1,820
TOTAL EQUITY AND LIABILITIES		**6,482**	5,797

Consolidated statement of cash flows

€ million	Note	2021	2020
Cash flow from operating activities			
Net result for the financial year		**553**	–116
Adjustments for			
Depreciation, amortization and impairments	2.3, 2.4, 4.1	**304**	246
Net expenses on provisions and employee benefit obligations		**21**	59
Gains/losses on sale of non-current assets	2.4	**–19**	–6
Net interest income and expense	2.5	**58**	71
Income taxes	2.6	**87**	–34
Other non-cash adjustments		**0**	3
		450	339
Change in net working capital			
Change in trade and other receivables		**–241**	–37
Change in inventories		**–684**	237
Change in trade and other payables		**660**	47
		–266	247
Provisions and employee benefit obligations paid		**–80**	–71
Interest and dividends received		**10**	2
Interest paid		**–63**	–69
Income taxes paid		**–7**	–10
Net cash from operating activities		**597**	322

€ million	Note	2021	2020
Cash flow from investing activities			
Equity investments at fair value through other comprehensive income	5.6	**–19**	–13
Purchases of property, plant and equipment	4.1	**–145**	–146
Purchases of intangible assets	4.1	**–11**	–20
Proceeds from sale of property, plant and equipment	4.1	**24**	15
Other investing cash flow		**2**	–10
Net cash from investing activities		**–149**	–175
Cash flow before financing activities		**448**	147
Cash flow from financing activities			
Directed share issue	5.2	**205**	–
Borrowings of non-current debt	5.1	**63**	496
Repayments of non-current debt	5.1	**–587**	–688
Change in current debt	5.1	**–174**	130
Repayments of lease liabilities	4.2	**–32**	–33
Net cash from financing activities		**–525**	–94
Net change in cash and cash equivalents		**–77**	53
Cash and cash equivalents at the beginning of the financial year		**376**	325
Net change in cash and cash equivalents		**–77**	53
Foreign exchange rate effect on cash and cash equivalents		**2**	–1
Cash and cash equivalents at the end of the financial year	5.1	**300**	376

Consolidated statement of changes in equity

€ million	Note	Share capital	Premium fund	Other restricted reserves	Invested unrestricted equity reserve	Fair value reserve from equity investments	Fair value reserve from derivatives [1]	Cumulative translation differences	Remeasurements of defined benefit plans	Treasury shares	Other retained earnings	Total equity
Equity on Jan 1, 2020		**311**	**714**	**3**	**2,103**	**–49**	**6**	**–27**	**–116**	**–33**	**–350**	**2,562**
Net result for the financial year		–	–	–	–	–	–	–	–	–	–116	–116
Other comprehensive income		–	–	–	–	4	–13	–86	–8	–	0	–104
Total comprehensive income for the financial year		–	–	–	–	4	–13	–86	–8	–	–117	–221
Transactions with equity holders of the Company												
Contributions and distributions												
Convertible bond	5.1	–	–	–	–	–	–	–	–	–	14	14
Share-based payments	3.4	–	–	–	–	–	–	–	–	2	–1	1
Fair value transfer to inventory	5.4	–	–	–	–	–	4	–	–	–	–	4
Equity on Dec 31, 2020		**311**	**714**	**3**	**2,103**	**–45**	**–4**	**–113**	**–124**	**–31**	**–454**	**2,360**
Net result for the financial year		–	–	–	–	–	–	–	–	–	553	553
Other comprehensive income		–	–	–	–	–44	20	92	–46	–	0	22
Total comprehensive income for the financial year		–	–	–	–	–44	20	92	–46	–	553	574
Transactions with equity holders of the Company												
Contributions and distributions												
Directed share issue	5.2	–	–	–	205	–	–	–	–	–	–	205
Share-based payments	3.4	–	–	–	–	–	–	–	–	1	3	4
Fair value transfer to inventory	5.4	–	–	–	–	–	–23	–	–	–	–	–23
Other		–	–	–	–	–	–	–	1	–	–1	–
Equity on Dec 31, 2021		**311**	**714**	**3**	**2,308**	**–89**	**–7**	**–22**	**–169**	**–30**	**101**	**3,120**

[1] The presentation of fair value changes reclassified to inventory has been changed in 2021 from other comprehensive income to movement in equity. Comparative information is presented accordingly.

Equity is fully attributable to the equity holders of the company. See note 5.2 for more information on equity.

Notes to the consolidated financial statements

Outokumpu has renewed its financial statements in 2021, and presents the notes to the consolidated financial statements as grouped in the following six sections:

The basis of preparation, accounting principles and management judgements applicable to the entire consolidated financial statements are presented in the Basis of reporting section, but the accounting principles, management judgements, and risks related to each disclosure item are presented in the related note. The table outlines the notes structure and indicates which notes include accounting principle, management judgement and risk information, and the following icons are used to indicate these topics within the notes.

Accounting principles

Management judgements

Risk information

Note			
1. Basis of reporting			
1.1 Corporate information			
1.2 Basis of preparation	■	▼	●
2. Business result			
2.1 Operating segments	■		
2.2 Revenue	■		
2.3 Cost of sales and selling, general and administrative expenses	■		
2.4 Other operating income and expenses	■		
2.5 Financial income and expenses	■		
2.6 Income taxes	■	▼	
2.7 Earnings per share	■		
3. Employee benefits			
3.1 Employee benefit expenses			
3.2 Employee benefits for key management	■		
3.3 Employee benefit obligations	■	▼	●
3.4 Share-based payments	■	▼	
4. Operating assets and liabilities			
4.1 Intangible assets and property, plant and equipment	■	▼	
4.2 Leases	■	▼	
4.3 Goodwill impairment test	■	▼	
4.4 Inventories	■	▼	
4.5 Trade and other receivables and payables	■		●
4.6 Provisions	■	▼	
5. Capital structure and financial risk management			
5.1 Net debt and capital management	■		●
5.2 Equity	■		
5.3 Financial risk management and insurances			●
5.4 Derivative instruments	■		
5.5 Financial assets and liabilities	■		
5.6 Equity investments at fair value through other comprehensive income	■	▼	
5.7 Commitments and contingent liabilities	■		
6. Other notes			
6.1 Disputes and litigations			
6.2 Related parties			
6.3 Subsidiaries			
6.4 Associated companies	■		
6.5 New IFRS standards			

1. Basis of reporting

This notes section covers the company information, general basis of preparation as well as accounting principles that are applicable to the entire consolidated financial statements.

1.1 Corporate information

Outokumpu Oyj is a Finnish public limited liability company organized under the laws of Finland and domiciled in Helsinki, Finland. The company has been listed on the Nasdaq Helsinki since 1988.

Outokumpu is the global leader in stainless steel. The foundation of Outokumpu's business is its ability to tailor stainless steel into any form and for almost any purpose. Stainless steel is sustainable, durable and designed to last forever. The Group's customers use it to create civilization's basic structures and its most famous landmarks as well as products for households and various industries. Outokumpu employs some 9,000 professionals in more than 30 countries.

Outokumpu's consolidated financial statements according to ESEF regulations are published in XHTML format at www.outokumpu.com/reports. Financial statements presented in other reports and formats, such as in the Annual report PDF or print, do not constitute as reports according to the ESEF regulations.

In its meeting on February 8, 2022, the Board of Directors of Outokumpu Oyj approved the publishing of these consolidated financial statements. According to the Finnish Limited Liability Companies Act, shareholders have the right to approve or reject the financial statements in the Annual General Meeting held after the publication of the financial statements. The Annual General Meeting also has the right to decide to amend the financial statements.

Corporate information

Company name	Outokumpu Oyj
Legal form	Public limited liability company
Country of incorporation	Finland
Domicile and principal place of business	Helsinki, Finland
Company address	P.O. Box 245, 00181 Helsinki, Finland
Ultimate parent company	Outokumpu Oyj

1. 1.1 1.2 2. 2.1 2.2 2.3 2.4 2.5 2.6 2.7 3. 3.1 3.2 3.3 3.4 4. 4.1 4.2 4.3 4.4 4.5 4.6 5. 5.1 5.2 5.3 5.4 5.5 5.6 5.7 6. 6.1 6.2 6.3 6.4 6.5

1.2 Basis of preparation

These consolidated financial statements of Outokumpu have been prepared on going concern basis for the financial year 2021 covering the period from January 1 to December 31, 2021.

The consolidated financial statements have been prepared in accordance with International Financial Reporting Standards (IFRSs) as adopted by the European Union including the IAS and IFRS standards as well as the SIC and IFRIC interpretations in force on December 31, 2021. The consolidated financial statements also comply with the regulations of Finnish accounting and company legislation complementing the IFRSs.

The consolidated financial statements are presented in millions of euros and have been prepared under the historical cost convention, unless otherwise stated in the accounting principles. All 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.

Risk information

Managing COVID-19 pandemic

Safety is a key priority at Outokumpu and protecting the health and safety of the employees in the global COVID-19 pandemic continued in 2021.

The effects of the pandemic were twofold. Outokumpu had various safety measures in its sites and offices, while the rebound from the 2020 slowdown showed as increased deliveries and improved performance. The financial impacts of COVID-19 related mainly to the market rebound, and its impact on prices, order books and utilization rates were stronger than estimated. On the other hand, various restrictions have been in place, as the company has continued to do its utmost to safeguard the employees – working remotely, following social distancing as well as limiting traveling, face-to-face meetings, and visitor access to only the absolutely business critical instances.

Towards the end of 2021, the COVID-19 pandemic moved on to a point where the crisis was no longer steered centrally at the Group level. Instead, the situation is now managed at the local level within the company guidelines and local country rules. Nevertheless, the COVID-19 pandemic still remains a risk going forward.

Management judgements

The preparation of the financial statements in accordance with IFRSs requires management to make judgements, estimates and assumptions that affect the reported amounts of assets and liabilities and the disclosure of contingent assets and contingent liabilities at the reporting date, as well as the reported amounts of income and expenses during the reporting period.

The management estimates and judgements are continuously evaluated and they are based on prior experience and other factors, such as future expectations assumed to be reasonable considering the circumstances. Although these estimates are based on management's best knowledge of the circumstances at the end of the reporting period, actual results may differ from the estimates and the assumptions.

The table in the beginning of the notes to the consolidated financial statements outlines the notes that include material management judgements.

Accounting principles

Principles of consolidation

The consolidated financial statements include the parent company Outokumpu Oyj and all subsidiaries controlled by Outokumpu Oyj either directly or indirectly. The Group controls an entity when it is exposed to, or has rights to, variable returns from its involvement with the entity and has the ability to affect those returns through its power over the entity.

The financial statements of subsidiaries are included in the consolidated financial statements from the date on which control commences until the date on which control ceases. Changes in the parent company's ownership interest in a subsidiary are accounted for as equity transactions if the parent company retains control of the subsidiary.

All intra-group transactions, receivables, liabilities and unrealized margins, as well as distribution of profits within the Group, are eliminated in the preparation of consolidated financial statements.

Foreign currency transactions

Transactions of each subsidiary included in the consolidated financial statements are measured using the currency that best reflects the economic substance of the underlying events and circumstances relevant to that subsidiary ("the functional currency"). The functional currency is mainly the subsidiary's local currency except for subsidiaries in Mexico and Argentina who use the US dollar as their functional currency.

The consolidated financial statements are presented in euros which is the functional and presentation currency of the parent company. Group companies' foreign currency transactions are translated into local functional currencies using the exchange rates prevailing at the dates of the transactions. Receivables and liabilities in foreign currencies are translated into functional currencies at the exchange rates prevailing at the end of the reporting period.

Foreign exchange differences arising from interest-bearing assets and liabilities and related derivatives are recognized in financial income and expenses in the consolidated statement of income. Foreign exchange differences arising in respect of other financial instruments are included in EBIT under sales, purchases or other operating income and expenses. The accumulated exchange differences arisen from hedges of net investments in foreign operations are recognized in equity.

For those subsidiaries whose functional and presentation currency is not the euro, the items in the statements of income and comprehensive income, and in the statement of cash flows are translated into euro using the average exchange rates of the reporting period. The assets and liabilities in the statement of financial position are translated using the exchange rates prevailing at the reporting date. The translation differences arising from the use of different exchange rates explained above are recognized in the Group's equity through other comprehensive income.

Any goodwill arising on acquisitions of foreign operations and any fair value adjustments to the carrying amounts of assets and liabilities arising on acquisitions of those foreign operations are treated as assets and liabilities of those foreign operations. They are translated into euro using the exchange rates prevailing at the reporting date. When a foreign operation is sold, or is otherwise partially or completely disposed of, the translation differences accumulated in equity are reclassified in profit or loss as part of the gain or loss on the sale.

Adoption of new and amended IFRS standards

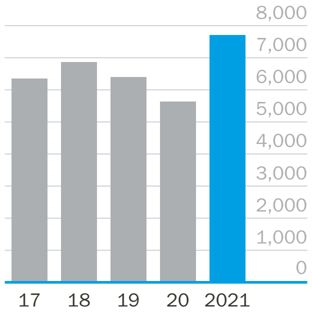
As of January 1, 2021, Outokumpu has applied the following new and amended standards, interpretations and decisions.

- **Amendments to IFRS 9, IAS 39, IFRS 7, IFRS 4 and IFRS 16 – Interest Rate Benchmark Reform, Phase 2** (effective for financial years beginning on or after January 1, 2021): The amendments address issues arising during the interest rate benchmark reform, including the replacement of one benchmark rate with an alternative one. The amendments cover: (1) accounting for changes in the basis for determining contractual cash flows as a result of IBOR reform; (2) additional temporary exceptions to applying specific hedge accounting requirements to avoid failure of hedge relationships solely due to IBOR reform; and (3) additional IFRS 7 disclosures related to IBOR reform. The amendments have been take into account in Outokumpu's loan documentation. The amendments also impact the market information applied in the valuation of the derivative instruments' interest component as of beginning of 2022. The amendments did not have material impact on Outokumpu's consolidated financial statements.
- **IFRIC agenda decision Configuration or Customisation Costs in a Cloud Computing Arrangement (IAS 38)** in April 2021: The agenda decision gives guidelines on the accounting treatment of the costs related to implementing software as a service (SaaS), including evaluation whether an intangible asset can be identified, and, if not, timing of the recognition of the related operating expense. The agenda decision did not have material impact on Outokumpu's consolidated financial statements for 2021. However, depending on the future decisions on entering into software as service arrangements, the agenda decision can impact the recognition of intangible assets as well as the timing and presentation of IT-related costs compared circumstances where such cost would arise from non-SaaS arrangements.

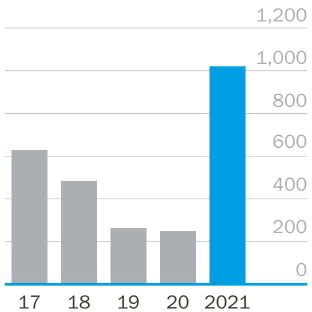
1. 1.1 1.2 2. 2.1 2.2 2.3 2.4 2.5 2.6 2.7 3. 3.1 3.2 3.3 3.4 4. 4.1 4.2 4.3 4.4 4.5 4.6 5. 5.1 5.2 5.3 5.4 5.5 5.6 5.7 6. 6.1 6.2 6.3 6.4 6.5

2. Business result

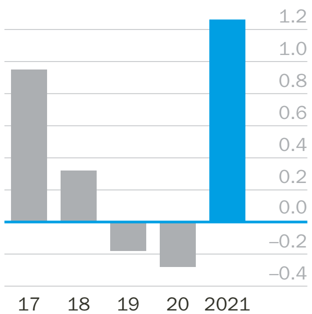
Sales, € million



Adjusted EBITDA, € million



Earnings per share, €



The market environment was exceptionally strong in 2021. This was reflected in favorable volume development and higher realized stainless steel prices. Together with benefits from the strategy execution, adjusted EBITDA reached its highest level in recent history. Net result and earnings per share were also at an excellent level.

2.1 Operating segments

Outokumpu's business is divided into four business areas which are Europe, the Americas, Ferrochrome and Long Products. The business areas have responsibility for commercials, supply chain management and operations and they are Outokumpu's operating segments under IFRS.

In addition to the business area structure, Group Functions cover Legal and compliance, Health and safety, Raw material procurement, Finance and IR, General procurement, Strategy, Transformation office, HR, Group communications, Global business services, R&D, Technology, Sustainability and Group IT.

Europe consists of both coil and plate operations in Europe. The high-volume and tailored standard stainless steel grades are primarily used for example in architecture, building and construction, transportation, catering and appliances, chemical, petrochemical and energy sectors, as well as other process industries. The production facilities are located in Finland, Germany and Sweden. The business area has an extensive service center and sales network across Europe, Middle East, Africa and APAC region.

Americas produces standard austenitic and ferritic grades as well as tailored products. Its largest customer segments are automotive and transport, consumer appliances, oil and gas, chemical and petrochemical industries, food and beverage processing, as well as building and construction industry. The business area has production units in the US and Mexico, as well as a service center in Argentina.

Ferrochrome produces charge grade of ferrochrome. The business area has a chrome mine in Kemi, Finland and ferrochrome smelters in Tornio, Finland.

Long Products are used in a wide range of applications such as springs, wires, surgical equipment, automotive parts and construction. The manufacturing is concentrated in the

1. 1.1 1.2 2. 2.1 2.2 2.3 2.4 2.5 2.6 2.7 3. 3.1 3.2 3.3 3.4 4. 4.1 4.2 4.3 4.4 4.5 4.6 5. 5.1 5.2 5.3 5.4 5.5 5.6 5.7 6. 6.1 6.2 6.3 6.4 6.5

integrated sites in the UK, Sweden and the US. Outokumpu concluded a strategic review of Long Products in 2020 and as a result, initiated a turnaround program for the Long Products business.

Other operations consist of activities outside the four operating segments, as well as industrial holdings. Such business development and Corporate Management expenses that are not allocated to the business areas are also reported under Other operations. Sales of Other operations consist of sales of electricity to the Group's production facilities in Finland and in Sweden, nickel procured under the Group's sourcing contract, and internal services.

						Reconciliation		
2021 € million	Europe	Americas	Ferrochrome	Long Products	Operating segments total	Other operations	Eliminations	Group
External sales	4,531	1,896	185	620	7,233	477	–	7,709
Inter-segment sales	69	51	418	189	727	307	–1,034	–
Sales	4,600	1,947	604	810	7,960	784	–1,034	7,709
Adjusted EBITDA	485	297	246	47	1,076	–26	–29	1,021
Adjustments to EBITDA								
Litigation provisions	–	–15	–	–	–15	–	–	–15
Environmental provisions	–	–	–	–	–	–10	–	–10
Gain on disposal of property	12	–	–	–	12	–	–	12
EBITDA	498	283	246	47	1,074	–35	–29	1,009
Depreciation and amortization	–141	–59	–44	–11	–255	–3	–1	–259
Impairments	–10	–3	–13	–	–27	–18	–	–45
EBIT	346	220	189	36	792	–57	–30	705
Assets in operating capital	3,126	1,359	996	410	5,892	325	–358	5,859
Other assets								401
Deferred tax assets								222
Total assets								6,482
Liabilities in operating capital	1,402	480	173	253	2,309	348	–320	2,336
Other liabilities								1,025
Deferred tax liabilities								1
Total liabilities								3,362
Operating capital	1,724	879	823	157	3,583	–23	–38	3,523
Net deferred tax asset								221
Capital employed								3,744

2020 € million	Europe	Americas	Ferrochrome	Long Products	Operating segments total	Other operations (Reconciliation)	Eliminations (Reconciliation)	Group (Reconciliation)
External sales	3,485	1,194	151	415	5,245	394	–	5,639
Inter-segment sales	83	1	260	78	422	271	–693	–
Sales	3,568	1,195	411	493	5,667	665	–693	5,639
Adjusted EBITDA	142	55	91	–8	280	–29	0	250
Adjustments to EBITDA								
Restructuring costs	–47	–2	–1	–3	–53	–6	–	–59
EBITDA	95	53	90	–11	227	–36	0	191
Depreciation and amortization	–140	–54	–34	–10	–238	–4	0	–243
Impairments	–2	–1	–	–	–3	0	–	–3
EBIT	–47	–1	56	–21	–14	–40	–1	–55
Assets in operating capital	2,610	1,097	931	255	4,894	292	–213	4,973
Other assets								561
Deferred tax assets								264
Total assets								5,797
Liabilities in operating capital	1,037	297	166	122	1,622	270	–205	1,687
Other liabilities								1,744
Deferred tax liabilities								7
Total liabilities								3,437
Operating capital	1,573	801	766	133	3,272	21	–8	3,286
Net deferred tax asset								257
Capital employed								3,543

Adjustments to EBITDA and EBIT

€ million	**2021**	2020
Litigation provisions	**–15**	–
Environmental provisions	**–10**	–
Gain on disposal of property	**12**	–
Restructuring costs	**–**	–59
Adjustments to EBITDA	**–12**	–59
Impairment of Group's ERP systems	**–18**	–
Impairments in Ferrochrome business area	**–13**	–
Impairments in lease agreements	**–10**	–
Adjustments to EBIT	**–54**	–59

In 2021, Outokumpu recognized increases in litigation provisions of EUR 15 million and in environmental provisions of EUR 10 million. The environmental provisions relate to the aftercare of closed mines in Finland. See note 6.1 for more information on litigations and note 4.6 on provisions.

In 2021, Outokumpu divested properties related to closed operations in Krefeld and Bochum in Germany, resulting in a gain of EUR 12 million.

For more information on impairments in 2021, see note 2.4.

In 2020, Outokumpu announced its new strategy with the first-phase focus on de-risking the company through deleveraging the balance sheet. Actions include cost savings through employee reductions, and the related restructuring costs amounted to EUR 59 million.

Accounting principles

Outokumpu's CEO, supported by the Leadership Team, is the Group's chief operating decision maker. The segments are reviewed regularly for the purpose of assessing performance and allocating resources to segments. The review is based on internal management reporting on IFRS based financial information.

Adjusted EBITDA

Adjusted EBITDA is Outokumpu's main performance indicator in financial reporting, and is also used to assess the segments' performance. Adjusted EBITDA is defined as EBIT before depreciation, amortization and impairment charges, and excluding such material income and expense items which affect the comparability between periods due to their unusual nature, size or incidence resulting from, for example, Group-wide restructuring programs or disposals of assets or businesses.

Adjusted EBITDA is an alternative performance measure meaning that it is not an IFRS-defined measure, so it is defined also in the Alternative performance measures section within the Review by the Board of Directors and reconciled to the consolidated statement of income.

2.2 Revenue

External sales by geographical destination

€ million	Finland	Other Europe	North America	APAC region	Other countries	Group
2021						
Operating segment						
Europe	244	3,933	79	227	49	4,531
Americas	–	0	1,829	4	63	1,896
Ferrochrome	14	113	27	31	1	185
Long Products	1	366	211	41	0	620
Other operations	–	476	–	–	–	476
	259	**4,890**	**2,146**	**302**	**112**	**7,709**
2020						
Operating segment						
Europe	196	2,940	47	262	41	3,485
Americas	–	0	1,144	5	45	1,194
Ferrochrome	10	66	2	73	0	151
Long Products	2	235	144	33	0	415
Other operations	–	394	–	–	–	394
	208	3,634	1,337	373	86	5,639

Other operations' nickel sales is reported under Other Europe instead of Other countries. Comparative information is presented accordingly.

Accounting principles

Outokumpu generates revenue mainly from sales of stainless steel and ferrochrome. Outokumpu ships these goods to customers under a variety of Incoterms, and considers the physical possession as well as risks and rewards related to the ownership of the goods to be transferred accordingly. This also signifies the transfer of control of the goods to the customer.

Outokumpu's performance obligations related to sale of stainless steel and ferrochrome are satisfied and revenue from contracts with customers recognized at a point of time. Only revenue from the performance obligation related to transportation of the goods is recognized over a period of time, and the period under which the revenue is recognized is relatively short. Moreover, the sales of goods and the transportation service are invoiced together from the customer, and consequently, the timing of revenue recognition does not affect the uncertainty associated with the cash flows. Outokumpu acts as a principal with regards to transportation of goods.

Outokumpu has bill-and-hold arrangements with selected European customers. Under these arrangements, based on a customer request, Outokumpu holds the readily available material at its own stock locations for the customer for up to a period of three months before the actual delivery of the material. Outokumpu has transferred control of these materials to the customer as Outokumpu is not able to direct the material to another customer, and consequently recognizes the revenue for the material sales. The revenue related to Outokumpu's transportation service performance obligation to deliver the material is recognized over the time when the delivery takes place.

In the end of 2021, the amount of revenue recognized under the bill and hold arrangements for products not delivered yet was immaterial.

Stainless steel and ferrochrome sales prices are mainly fixed before delivery, and volume discounts estimated and accrued in the revenue recognition are the only variable component in pricing. In individual cases, the sales price of ferrochrome is based on the period of time when the customer uses the purchased ferrochrome. The payment terms vary from advance payment to 90 days payment term, and do not include any significant financing component.

Outokumpu also sells nickel procured under Group's nickel sourcing agreement. These sales are recognized to revenue when the title to the material is transferred to the buyer.

Liabilities related to customer contracts are presented in note 4.5.

Outokumpu does not have individual significant customers as defined in IFRS 8.

2.3 Cost of sales and selling, general and administrative expenses

€ million	2021	2020
Cost of sales	**–6,732**	–5,403
Selling and marketing expenses	**–67**	–68
Administrative expenses	**–185**	–196
Research and development expenses	**–14**	–21
	–6,998	–5,688

Cost of sales and selling, general and administrative expenses by nature

€ million	2021	2020
Materials	**–4,220**	–3,170
Supplies	**–574**	–468
Energy	**–355**	–253
Maintenance	**–173**	–182
Freight	**–276**	–226
Employee benefits	**–711**	–735
Depreciation and amortization	**–259**	–243
Other	**–430**	–411
	–6,998	–5,688

Depreciation and amortization by function

€ million	2021	2020
Cost of sales	**–250**	–233
Selling and marketing expenses	**–1**	–2
Administrative expenses	**–7**	–7
Research and development expenses	**–1**	–1
	–259	–243

Auditor fees

€ million	2021	2020
Audit	**–2.3**	–2.0
Audit-related services	**–0.0**	–0.0
Tax advisory	**–0.0**	–0.0
Other services	**–0.3**	–0.1
	–2.7	–2.1

PricewaterhouseCoopers Oy has provided non-audit services to Outokumpu in total of EUR 0.3 million during 2021. These services comprised of sustainability reporting, ESG consulting and other agreed upon procedures.

Accounting principles

Cost of sales

Cost of sales includes expenses related to materials and supplies, energy, maintenance and freight. Employee benefit expenses, depreciation and amortization and other expenses are included to the extent they relate to operational activities.

Research and development costs

As a main rule, research and development costs are expensed as incurred. If development is expected to generate future economic benefits for the Group, related costs are capitalized as intangible assets and amortized on a systematic basis over their useful lives.

Repairs and maintenance costs

Ordinary repairs and maintenance is carried out to maintain operating conditions of the mills and the equipment, and the related costs are expensed as they are incurred.

The costs of major repairs and renovations are included in the asset's carrying amount as capital expenditure when these activities are expected to generate future economic benefits for the Group, for example in form of a longer useful life, a wider product range, a higher output, or an improved quality, in excess of the originally assessed standard performance level.

Depreciation and amortization methods and useful lives of non-current assets

Depreciation and amortization methods as well as estimates for useful lives of different types of intangible asset and property, plant and equipment items are described in the note 4.1.

2.4 Other operating income and expenses

Other operating income

€ million	2021	2020
Exchange gains and losses from foreign exchange derivatives	**22**	–
Market price gains and losses from commodity derivatives	**–12**	–
Market price gains and losses from derivative financial instruments	**11**	–
Gains on sale of non-current assets	**19**	6
Other income items	**19**	16
	49	22

Gains on sale of non-current assets in 2021 include EUR 12 million gains from disposal of property in Germany. Other income items do not include any material government support (2020: included EUR 5 million mainly related to COVID-19 support measures in various countries). Comparative information for exchange as well as market price gains and losses is reported as other operating expenses.

Other operating expenses

€ million	2021	2020
Exchange gains and losses from foreign exchange derivatives	–	–12
Market price gains and losses from commodity derivatives	–	5
Market price gains and losses from derivative financial instruments	–	–7
Impairments in non-current assets	**–45**	–3
Other expense items	**–10**	–18
	–55	–28

In 2021, Outokumpu recognized impairments in non-current assets based on reviews of individual assets for EUR 45 million. These impairments include EUR 18 million relating to the Group's ERP systems, EUR 13 million regarding mine properties and obsolete machinery in Ferrochrome business area, EUR 10 million regarding lease agreements on land and buildings in the business area Europe's operations in Germany, and EUR 4 million regarding obsolescence of various assets in the Group (2020: EUR 3 million related to obsolescence of various assets).

Other expense items do not include any material expenses on emission allowances (2020: EUR 11 million). See notes 4.1 and 5.3 for more information on emission allowances and related price risk.

Accounting principles

Other operating income and expenses include items such as gains or losses from disposals of non-current assets or businesses and gains or losses from derivate financial instruments that are not hedge accounted or do not relate to the Group's financing activities.

Other operating income also includes rental and lease income, insurance compensations and government and other grants and support.

Grants and other support are recognized as income over the same periods as the costs they are intended to compensate. Investment grants related to purchases of non-current assets are deducted from the cost of the asset and recognized as income on a systematic basis as a reduction in depreciation or amortization over the useful life of the asset.

Other operating expenses include costs related to emission allowances and impairment losses related to non-current assets.

2.5 Financial income and expenses

€ million	2021	2020
Interest income	**4**	3
Other financial income	**3**	0
Interest and other financial income	**7**	3
Interest expenses		
Debt at amortized cost	**–44**	–56
Factoring	**–7**	–6
Lease liabilities	**–11**	–12
Employee benefit obligations	**–2**	–3
Other	**–1**	–1
Interest expenses	**–65**	–78
Capitalized interests	**3**	3
Fees related to committed credit facilities	**–13**	–11
Other fees	**–9**	–5
Other financial expenses	**–19**	–13
Exchange gains and losses		
Derivatives	**8**	–4
Cash, loans and receivables	**–10**	–8
Other market price gains and losses		
Derivatives	**–5**	1
Other	**4**	1
Market price gains and losses	**–3**	–10
Total financial income and expenses	**–80**	–98

Exchange gains and losses in the consolidated statement of income

€ million	2021	2020
In sales	**9**	–12
In purchases	**–33**	30
In other operating income and expenses	**22**	–12
In financial income and expenses	**–2**	–11
	–4	–6

Exchange gains and losses include EUR 30 million of net exchange gain on derivative financial instruments (2020: EUR 16 million net exchange loss) of which a gain of EUR 22 million has been recognized in other operating income and a gain of EUR 8 million in financial income and expenses.

Accounting principles

Financial income includes mainly interest income on defined benefit plans and exchange and other market price gains on cash, debt and loan receivables and derivatives related to Group's financing activities.

Financial expenses include mainly interest expenses of borrowings, lease liabilities, factoring, and defined benefit plans, commitment and financial fees, capitalized interest expenses and exchange and other market price losses on cash, debt and loan receivables and derivatives related to financing activities.

Exchange and other market price gains and losses on operative items and related derivative instruments are recognized in EBIT. Exchange and other market price gains and losses on financing items and related derivative instruments are recognized in financial income and expenses.

2.6 Income taxes

Income taxes in the consolidated statement of income

€ million	2021	2020
Current taxes	**–23**	–4
Deferred taxes	**–64**	39
	–87	34

Reconciliation of effective tax rate

€ million	2021	2020
Result before taxes	**640**	–151
Income taxes at Finnish tax rate of 20%	**–128**	30
Difference between Finnish and foreign tax rates	**–26**	4
Non-deductible expenses and tax exempt income	**–2**	–6
Current year result for which no deferred tax asset has been recognized	**54**	0
Changes in deferred tax recognition	**4**	–1
Taxes for prior years	**1**	4
Tax rate changes and other changes in tax laws	**7**	3
Associated companies	**3**	0
	–87	34

Accumulated deferred taxes recognized in equity

€ million	2021	2020
Deferred tax on convertible bond equity component	**–2**	–3
Net investment hedging	**–4**	–4
Remeasurements of the net defined benefit liability	**87**	62
	81	55

Deferred tax assets and liabilities

	Jan 1, 2021	Movements			Dec 31, 2021
€ million	Net deferred tax assets (+) and liabilities (–)	Recognized in profit or loss	Recognized in other comprehensive income or directly in equity	Translation differences	Net deferred tax assets (+) and liabilities (–)
Intangible assets	6	–2	–	1	5
Property, plant and equipment	–190	–17	–	–5	–211
Inventories	–4	9	–	0	6
Net derivate financial assets	–2	3	0	0	1
Other financial assets	23	16	–	0	39
Employee benefit obligations	41	–24	24	0	41
Other financial liabilities	87	–52	–	3	38
Provisions	–10	5	–	0	–5
Tax losses and tax credits	306	–1	–	3	307
Net deferred taxes assets	257	–64	24	3	**221**
Deferred tax assets	264				**222**
Deferred tax liabilities	–7				**–1**

	Jan 1, 2020	Movements			Dec 31, 2020
€ million	Net deferred tax assets (+) and liabilities (–)	Recognized in profit or loss	Recognized in other comprehensive income or directly in equity	Translation differences	Net deferred tax assets (+) and liabilities (–)
Intangible assets	5	1	–	0	6
Property, plant and equipment	–212	22	–	0	–190
Inventories	–8	4	–	0	–4
Net derivate financial assets	–3	1	–	0	–2
Other financial assets	13	9	–	0	23
Employee benefit obligations	40	–3	4	0	41
Other financial liabilities	106	–16	–3	0	87
Provisions	–8	–2	–	0	–10
Tax losses and tax credits	283	22	–	1	306
Net deferred taxes assets	217	39	0	1	257
Deferred tax assets	229				264
Deferred tax liabilities	–12				–7

Tax losses and related deferred tax assets

	Tax losses carried forward		Recognized deferred tax assets		Unrecognized deferred tax assets	
€ million	**2021**	2020	**2021**	2020	**2021**	2020
Expire in less than 1 year	**0**	3	**0**	0	**–**	–
Expire in 2–5 years	**82**	217	**16**	43	**0**	0
Expire later than in 5 years	**1,601**	1,883	**119**	62	**308**	375
Never expire	**1,103**	1,283	**172**	200	**108**	91
	2,786	3,385	**307**	306	**415**	466

Tax losses by country

€ million	**2021**	2020
Finland	**161**	592
Germany	**217**	266
Sweden	**291**	374
The US	**1,871**	1,898
The UK	**190**	183
Other countries	**55**	73
	2,786	3,385

As of December 31, 2021, the tax attributes of the Outokumpu Group for which no deferred tax asset has been recognized amount to EUR 1,544 million (Dec 31, 2020: EUR 1,942 million). These tax attributes relate mainly to Outokumpu's operations in the US where the losses have not been valued to the extent they exceed the deferred tax liability in the US. The accounting assessment for deferred taxes does not support the recognition of a deferred tax asset on losses during the first profitable year, when the company has a history of recent losses. Therefore, Outokumpu has not recognized any deferred asset on these losses in 2021 but will continue to evaluate the possibility of recognition based on development in taxable income in its US operations.

No deferred tax liabilities were recorded on undistributed profits of foreign subsidiaries, as such profits are not to be distributed in the foreseeable future.

Management judgements

Outokumpu operates and earns income in numerous countries and is subject to changes in tax laws in multiple jurisdictions. When recognizing income tax liabilities, material judgements and estimates need to be made on tax uncertainties.

In deferred tax asset recognition, the management assesses whether the realization of future tax benefits is sufficiently probable to support the recognition. This assessment requires judgement regarding, for example, realizable benefits from future taxable income, available tax strategies, as well as other positive and negative factors. The recorded amount of deferred tax assets could be reduced as a result of changes in these estimates or in tax regulations imposing restrictions on the utilization of future tax benefits.

Accounting principles

Current and deferred income taxes are determined on entity level to the extent an entity is subject to income taxation. The income taxes in the consolidated statement of income include the Group companies' current income taxes based on taxable profit for the period, tax adjustments for previous periods, and the change in deferred income taxes. In several countries (Finland, Germany, Italy, the Netherlands, Sweden, the UK and the US) Outokumpu companies are included in income tax consolidation groups or group taxation systems. The share of results in associated companies is reported in the statement of income based on the net result and thus including the income tax effect.

Deferred income taxes are stated using the balance sheet liability method to reflect the net tax effects of temporary differences between the assets and liabilities' carrying amounts in the financial statements and the corresponding tax basis at the reporting date, as well as for unused tax loss or credit carry forwards.

Deferred tax assets are recognized for all deductible temporary differences to the extent that it is probable that future taxable profits will be available for utilization of these differences. A valuation allowance is recognized if the realization of the tax benefits is not probable. The ability to recognize deferred tax assets is reviewed at the end of each reporting period.

Deferred tax liabilities are usually recognized in the statement of financial position in full. As an exception, deferred tax liabilities are not recognized if they arise from initial recognition of an asset or a liability in a transaction that is not a business combination and that does not affect the accounting nor taxable profit at the time of the transaction.

Deferred taxes are calculated at the enacted or substantially enacted tax rates that are expected to apply by the end of the reporting period. Generally, deferred tax is recognized to the statement of income. However, if the taxes are related to items of other comprehensive income or to transactions or other events recognized directly in equity, the related income taxes are also recognized either in other comprehensive income or directly in equity, respectively.

2.7 Earnings per share

	2021	2020
Net result attributable to the equity holders of the Company, € million	**553**	–116
Interest expenses on convertible bond, net of tax, € million	**8**	6
Adjusted net result attributable to the equity holders of the Company, € million	**561**	–110
Adjusted weighted average number of shares, in thousands	**438,871**	413,908
Adjusted diluted average number of shares, in thousands	**479,164**	437,336
Earnings per share, €	**1.26**	–0.28
Diluted earnings per share, €	**1.17**	–0.28

In May 2021, Outokumpu carried out an issue of 40,500,000 new shares directed to institutional investors. The new shares were registered on May 12, 2021. Earnings per share figures are calculated based on the share-issue-adjusted weighted average number of shares. Comparative information is presented accordingly.

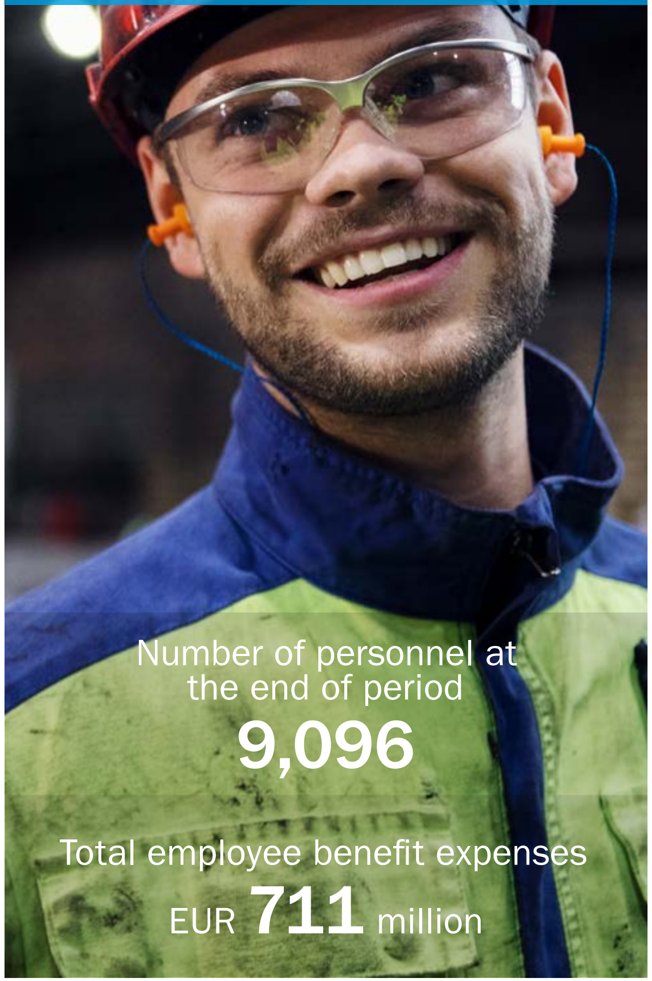
Accounting principles

Basic earnings per share is calculated by dividing the net result attributable to the equity holders of the company by the adjusted weighted average number of shares outstanding during the period, excluding shares held by Outokumpu as treasury shares.

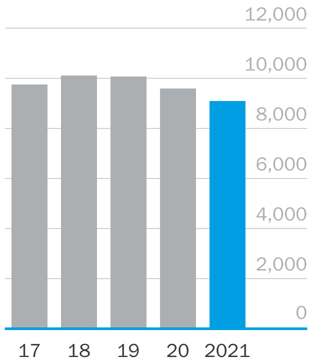
In a share issue, when shares are offered at discount compared to market price, the proportion of the issue representing the discount is retrospectively adjusted to the adjusted weighted number of shares.

Diluted earnings per share is calculated by adjusting the weighted average number of ordinary shares outstanding with the assumption that convertible instruments are converted. The profit or loss used in the calculation is adjusted for the interest expense related to the instrument and recognized in the period, net of tax. In addition, the shares estimated to be delivered based on the share-based incentive programs are taken into account. However, potential ordinary shares are only dilutive if the adjustments decrease the earnings per share ratio.

3. Employee benefits

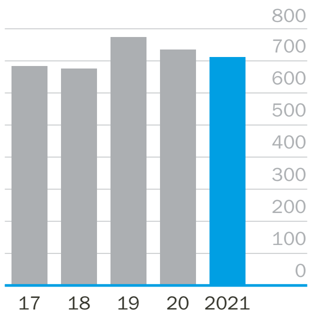


Personnel on December 31



Personnel reported as full time equivalent number.

Employee benefit expenses, € million



Outokumpu reduced its number of personnel by some 500 during 2021 towards the target of below 9,000, in line with the strategy-related actions initiated in 2020. Employee benefit expenses in 2021 were lower compared to the previous year due to the decrease in number of personnel and the redundancy costs recognized in 2020. On the other hand, expenses related to short-term incentives increased on the back of the strong performance in 2021.

3.1 Employee benefit expenses

€ million	2021	2020
Wages and salaries	**–557**	–547
Termination benefits	**–4**	–56
Social security costs	**–88**	–80
Post-employment and other long-term employee benefits		
Defined benefit plans	**–3**	–5
Defined contribution plans	**–46**	–40
Other long-term employee benefits	**–1**	–1
Share-based payments	**–4**	–1
Other employee benefit expenses	**–8**	–5
	–711	–735

Profit-sharing bonuses recognized in 2021 based on the Finnish Personnel Funds Act amounted to EUR 10 million (2020: no profit-sharing bonuses recognized).

In 2020, Outokumpu carried out employee negotiation processes in selected operating countries to create cost savings targeted in the Group's strategy. The restructuring costs were reported as termination benefits in the above table and as adjustments to EBITDA (see note 2.1).

3.2 Employee benefits for key management

€ thousand	2021	2020
Short-term employee benefits	**6,171**	3,889
Termination benefits	**–**	1,489
Post-employment benefits [1)]	**421**	367
Share-based payments	**1,048**	205
Remuneration to the Board of Directors	**781**	658
	8,421	6,608

[1)] Contains only supplementary pensions.

Key management includes the members of the Outokumpu Leadership Team and the members of the parent company Outokumpu Oyj's Board of Directors.

Employee benefits for the CEO

	Recognized in profit or loss		Remuneration paid	
€ thousand	2021	2020	2021	2020
Salaries and short-term benefits	**796**	989	**796**	989
Short-term incentives	**1,065**	–	**–**	276
Post-employment benefits	**116**	281	**116**	281
Share-based payments	**278**	4	**–**	–
	2,254	1,274	**912**	1,546

CEO Malinen participates in the Finnish TyEL pensions system, and the post-employment benefits have been calculated based on the general TyEL contribution percentage of the employer. Employee benefits for the CEO in 2020 include Heikki Malinen as of May 16, 2020 and Roeland Baan until May 15, 2020.

Remuneration to Board of Directors

€ thousand	2021	2020
Chairman Kari Jordan	**176**	181
Vice Chairman Eeva Sipilä, as of May 28, 2020, member until May 27, 2020	**104**	108
Vice Chairman Heikki Malinen, until April 30, 2020	**–**	7
Member Heinz Jörg Fuhrmann, as of March 31, 2021	**78**	–
Member Kati ter Horst	**84**	88
Member Päivi Luostarinen, as of March 31, 2021	**80**	–
Member Vesa-Pekka Takala	**83**	88
Member Pierre Vareille	**85**	94
Member Julia Woodhouse	**93**	93
	781	658

Remuneration of the CEO

The remuneration of the CEO consists of base salary, benefits, annually determined short-term incentives, and long-term share-based incentive programs.

CEO's base salary and the annual short-term incentive earning opportunity (target level 50% and the maximum level 100% of the gross annual base salary) remained unchanged in 2021. The basis of the short-term incentives for 2021 was the achievement of the pre-defined strategic targets, which were Outokumpu's adjusted EBITDA (80% weight, achieved above maximum level) and strategic projects (20% weight, achieved at target level). Observing the excellent business results, the Board of Directors decided to reward the CEO with short-term incentives exceeding the maximum level described in the policy.

The CEO participates in the Performance Share Plans (PSP) 2019–2021, 2020–2022, and 2021–2023. Outokumpu did not reach the targets for PSP 2018–2020 or 2019–2021 and subsequently no rewards were paid.

The Performance Share Plans include a strong share ownership recommendation: The members of the Leadership Team, including the CEO, are obliged to own Outokumpu shares received under the company's share-based incentive programs corresponding to the value of their annual gross base salary. Half of the net shares received from the share-based incentive programs must be used to fulfil this requirement.

CEO has the right to retire at the age of 65 and he participates in the Finnish TyEL pension system and there are no supplementary pensions in place. The service contract of the is valid until further notice. The CEO is entitled to a severance payment of 12 months, and the notice period is six months for both parties.

Remuneration of the Board of Directors

Outokumpu's Annual General Meeting approved the annual remuneration to the members of the Board of Directors, of which 40% was paid in the company's own shares using treasury shares. The annual fee is paid once a year and members of the Board are not entitled to any other share-based rewards. In addition to the annual remuneration, a meeting fee is paid. The Board members are not eligible for any pension schemes.

Accounting principles

Employee benefits for the key management include the benefits to each Leadership Team or Board of Directors member for the time they hold these positions.

Employee benefits are presented based on expenses recognized in profit or loss during the year on accrual basis except for the CEO whose remuneration is presented also based on paid during the year.

Short-term incentives are recognized to profit or loss during the period the relate to whereas bonuses are typically paid out during the following financial year. Expenses on share-based payments are recognized to profit or loss at the share price on the grant date of the benefit and over the period when the benefit is earned. Share-based benefits are reported as paid when delivered and at the share price on the delivery date.

3.3 Employee benefit obligations

Outokumpu has several defined benefit and defined contribution plans in various countries. The most significant defined benefit plans are in Germany and the UK, representing 37% and 60% of the Group's total defined benefit obligation, respectively.

Funding requirements of the defined benefit plans are generally based on the pension fund's actuarial measurement framework set out in the funding policies and local regulation.

Germany

Outokumpu has several defined benefit plans in Germany, of which major plans include a management plan, open pension plans for other staff, and other pension obligations, which are nearly all closed for new entrants. Bases to all pension obligations in Germany are bargaining agreements and/or individual contracts (management obligations). The management plan and other pension obligations are based on annuity payments, whereas plans for other employees are based on one lump sum payment after retirement.

In addition, all the obligations in Germany are embedded in the BetrAVG law. The law contains rules for vested rights, pension protection scheme and regulations for the pension adjustments. In Germany, no funding requirements exist, and the plans are funded only for a small part with a CTA model (Contractual Trust Arrangement) that was introduced in 2019.

The UK

The AvestaPolarit Pension Scheme (the "Scheme") is registered under UK legislation and is contracted out of the State Second Pension. The Scheme is subject to the funding requirements outlined in UK legislation. The Scheme's trustee is responsible for the operation and governance of the Scheme, including decisions regarding the Scheme's funding and investment strategy.

In December 2021, a GBP 390 million buy-in contract was implemented. This buy-in completes the Scheme's de-risking process which began with an initial buy-in in 2020, when a GBP 110 million buy-in insurance solution was implemented. The actuarial losses in 2021 amounted to EUR 86 million, mainly attributable to the buy-in arrangement.

A buy-in removes risks of investment, longevity, interest rate changes and inflation for the Scheme and is held as a Scheme asset. Until a buy-out is secured, the Scheme ultimately remains the responsibility of the Company. However, as a result of the buy-in arrangement, the risks related to the Scheme's obligation are now significantly reduced and mostly covered by insurance. Outokumpu has agreed with the trustees to hold cash in an escrow account to provide for small mismatches in the insurance coverage and liquidity to the scheme. At year-end 2021, the escrow balance was GBP 13 million.

The Scheme is triennially valued to ensure sufficient funding. The latest actuarial valuation was completed in 2021 and indicated continued improvement in the Scheme's funding with a surplus of GBP 4 million. In 2021, Outokumpu made the final contribution of GBP 3 million to cover the former deficit identified in 2018 valuation (2020: GBP 6 million). These valuations are not based on the same assumptions as the IFRS valuation. Due to the buy-in solutions, no further contributions are expected to be required as a result of the triennial valuations.

Defined benefit cost in profit or loss and other comprehensive income

€ million	2021	2020
In employee benefit expenses in EBIT	**–3**	–5
In financial income and expenses	**–1**	–2
Defined benefit cost in profit or loss	**–4**	–8
In other comprehensive income	**–72**	–12
Total defined benefit cost	**–76**	–19

Gross defined benefit obligations and plan assets

€ million	2021	2020
Present value of funded defined benefit obligations	**778**	781
Present value of unfunded defined benefit obligations	**3**	3
Fair value of plan assets	**–487**	–534
Net defined benefit liability	**294**	250

Amounts recognized in the consolidated statement of financial position

€ million	2021	2020
Defined benefit liability	**294**	314
Defined benefit plan assets	**–**	–64
Net defined benefit liability	**294**	250
Defined benefit liability	**294**	314
Other long-term employee benefit liabilities	**15**	16
Employee benefit obligations in statement of financial position	**309**	329

Gross defined benefit obligations and plan assets are presented in the statement of financial position netted per plan either as a liability or an asset depending on nature of the netted item.

1. 1.1 1.2 2. 2.1 2.2 2.3 2.4 2.5 2.6 2.7 3. 3.1 3.2 3.3 3.4 4. 4.1 4.2 4.3 4.4 4.5 4.6 5. 5.1 5.2 5.3 5.4 5.5 5.6 5.7 6. 6.1 6.2 6.3 6.4 6.5

Movement in net defined benefit liability

€ million	2021 Present value of obligation	2021 Fair value of plan assets	2021 Net defined benefit liability	2020 Present value of obligation	2020 Fair value of plan assets	2020 Net defined benefit liability
Total on Jan 1	783	–534	249	786	–537	249
Current service cost	5	–	5	5	–	5
Past service cost	–2	–	–2	–	–	–
Interest expense/(income)	7	–7	1	12	–10	2
Remeasurements arising from						
Return on plan assets	–	72	72	–	–32	–32
Demographic assumptions	14	–	14	–15	–	–15
Financial assumptions	–21	–	–21	68	–	68
Experience adjustment	5	–	5	–9	–	–9
Exchange differences	32	–34	–2	–25	28	2
Employer contributions	–	–28	–28	–	–22	–22
Benefits paid	–41	41	–	–38	38	–
Settlements	–2	2	0	–1	1	0
Total on Dec 31	**781**	**–487**	**294**	783	–534	250
Germany on Dec 31	**292**	**–16**	**276**	315	–13	302
The UK on Dec 31	**470**	**–464**	**6**	445	–509	–64

The weighted average duration of the overall defined benefit obligation is 17.0 years. In Germany and in the UK the weighted average durations are 12.8 and 20.0 years, respectively.

The expected contributions to be paid to the defined benefit plans in 2022 are EUR 24 million and relate mainly to the German plans.

Allocation of plan assets

€ million	2021	2020
Cash and cash equivalents	**5**	–
Equity instruments	**–**	33
Debt instruments	**–**	150
Insurance policies	**466**	128
Other assets	**–**	220
Total plan assets	**471**	531

Allocation of plan assets covers 96.7% of total defined benefit plan assets. On December 31, 2021, 1% of the plan assets were invested in quoted instruments (Dec 31, 2020: 76%). The changes are related to the 2021 buy-in contract in the UK where the scheme's assets now mostly comprise of insurance contracts.

Significant actuarial assumptions

		Germany	The UK	Other countries
Discount rate, %	**2021**	**0.92**	**1.75**	**3.76**
	2020	0.72	1.25	2.41
Future salary increase, %	**2021**	**–**	**–**	**3.99**
	2020	–	–	3.95
Inflation rate, %	**2021**	**–**	**3.30**	**–**
	2020	–	2.80	–
Future benefit increase, %	**2021**	**1.70**	**3.15**	**1.36**
	2020	1.70	2.75	1.37
Medical cost trend rate, %	**2021**	**–**	**–**	**5.80–6.10**
	2020	–	–	4.70
Life expectancy	**2021**	RT 2018 G mortality tables	96% SAPS All Pensioner Amounts tables with CMI Core Projection Model –2020	Standard mortality tables
	2020	RT 2018 G mortality tables	96% SAPS All Pensioner Amounts tables with CMI Core Projection Model –2019	Standard mortality tables

Sensitivity analysis of significant actuarial assumptions

	Change in assumption	Germany, %	The UK, %	Other countries, %
2021				
Discount rate	+/– 0.5%	–6/+7	–9/+10	–4/+4
Future benefit increase	+/– 0.5%	+3/–3	+7/–7	+3/–3
Medical cost trend rate	+/– 0.5%	–	–	+1/–1
Future salary increase	+/– 0.5%	–	–	+3/–3
Life expectancy	+ 1 year	+3	+3	+7
2020				
Discount rate	+/– 0.5%	–6/+7	–9/+10	–4/+4
Future benefit increase	+/– 0.5%	+3/–3	+6/–6	+3/–3
Medical cost trend rate	+/– 0.5%	–	–	+1/–1
Future salary increase	+/– 0.5%	–	–	+3/–4
Life expectancy	+ 1 year	+3	+3	+7

Sensitivity is presented for reasonably possible change at the reporting date in one of the principal assumptions, while holding all other assumptions constant.

Other long-term employee benefits

Other long-term employee benefits mainly relate to early retirement provisions in Germany and long-service remunerations in Finland. Under the German early retirement agreements, employees work additional time prior to retirement, which is subsequently paid for in instalments after retirement. In Finland, the employees are entitled to receive a one-time indemnity every five years after 20 years of service.

Multi-employer defined benefit plans

ITP pension plans operated by Alecta in Sweden and plans operated by Stichting Bedrijfspensioenfonds voor de metaalindustrie in the Netherlands are multi-employer defined benefit pension plans. However, it has not been possible to get sufficient information for the calculation of obligations and assets by employer from the plan operators, and therefore these plans have been accounted for as defined contribution plans in the consolidated financial statements.

Risk information

Through its defined benefit plans, Outokumpu is exposed to a number of risks, the most significant of which are detailed below.

Asset volatility: The level of equity returns is a key factor in the overall investment return. If a plan holds significant proportion of equities, which are expected to outperform corporate bonds in the long-term, it might face higher volatility and risk in the short-term. The investment portfolio might also be subject to a range of other risks typical of the assets held, in particular credit risk on bonds and exposure to the property market.

Change in bond yields: A decrease in corporate bond yields will increase plan liabilities, although this will be partially offset by an increase in the value of the plan's bond holdings (if any). In a situation where the return on plan assets is lower than the corporate bond yields, a plan may face a shortfall which might lead to increased contributions.

Inflation risk: Inflation rate is linked to both future pension and salary increase, and higher inflation will lead to higher liabilities.

Longevity: The majority of Outokumpu's defined benefit obligations are to provide benefits for the life of the member, so increases in life expectancy will result in an increase in the plans' liabilities.

The buy-in solutions implemented in the UK in 2021 and 2020 significantly reduce the earlier-mentioned risks for the Scheme, which is mostly covered by insurance.

Management judgements

The present value of pension obligations is subject to actuarial assumptions which are used in calculating these obligations. These assumptions include, among others, discount rate, the annual rate of increase in future compensation levels, inflation rate and employee turnover rate. The assumptions are proposed by external independent actuaries separately for each defined benefit plan or each country where Outokumpu has defined benefit plan and approved by the management.

Accounting principles

The Group companies in different countries have various post-employment benefit plans in accordance with local conditions and practices. The plans are classified as either defined contribution plans or defined benefit plans.

The fixed contributions to defined contribution plans are recognized as expense in the period to which they relate. The Group has no legal or constructive obligation to pay further contributions if the receiving party is not able to pay the benefits in question. All such arrangements that do not meet these requirements are defined benefit plans.

Defined benefit plans are funded with payments to the pension funds or insurance companies. The present value of the defined benefit obligations is determined separately for each plan by using the projected unit credit method. The liability recognized in the statement of financial position is the defined benefit obligation less the fair value of plan assets at the closing date. When the fair value of plan assets exceeds the value of the obligation, the net amount is recognized as defined benefit plan assets.

Current service costs, past service costs and gains or losses on settlements are recognized in functional costs above EBIT. Net interest expense or income is recognized in financial items under interest expense or interest income. All remeasurements of the net defined benefit liability (asset) are recognized directly in other comprehensive income.

Buy-in contract in the UK does not result in a settlement because Outokumpu remains responsible for the benefit obligation. The buy-in contract is effectively an investment by which the plan can receive payments from the insurer corresponding to the benefits due to the participants, but ultimately the primary obligation to pay benefits has not been transferred.

For other long-term employee benefits, all service costs and remeasurements are recognized immediately in the statement of income. Interest expenses are recognized in financial items under interest expenses.

The significant actuarial assumptions are presented separately for the most significant countries, and for other countries a weighted average of the assumptions is presented.

3.4 Share-based payments

Share-based programs are part of the Group's incentive and commitment-building system for key employees. The objectives are to reward key personnel for good performance and thereby support Outokumpu's strategy, and to direct management attention towards Outokumpu's profitability and shareholder value.

The Performance Share Plan (PSP) includes an earning criterion and has maximum number of participants for each plan of 150. It is part of the regular compensation of top executives. The Restricted Share pool (RSP) does not have any specific earning criteria and it is used for a limited number of employees, for key recruitments, exceptional performance, high potential, retention needs and other individual specific situations.

For the financial year 2021, the share-based payment expenses included in the employee benefit expenses were EUR 4 million (2020: EUR 1 million). The total estimated value of the share-based payment plans is EUR 14 million on December 31, 2021. This value is recognized as an expense in the statement of income during the vesting periods.

Outstanding programs

During 2021, Outokumpu's share based payment programs included Performance Share Plan (Plans 2019–2021, 2020–2022 and 2021–2023) and Restricted Share Pool Program (Plans 2019–2021, 2020–2022 and 2021–2023).

In December 2021, the Board of Directors approved the commencement of the 2022–2024 plans for the Performance Share Plan and the Restricted Share Pool Program from the beginning of 2022.

Vested programs

In 2021, the Performance Share Plan 2018–2020 ended, and as the targets were not achieved, no shares were rewarded to the participants. Regarding the Restricted Share Pool Program plan 2018–2020, after deductions for applicable taxes, in total 58,815 shares were delivered to 42 participants based on the conditions of the plan. From the Restricted Share Pool Program plan 2019–2021, after deductions for applicable taxes, in total 10,950 shares were delivered to one participant in December 2021.

In 2020, after deductions for applicable taxes, in total of 49,147 shares were delivered to the participants of the Restricted Share Pool Program plan 2017–2019 and 178,350 shares were delivered to the participant of the Matching Share Plan as the last reward tranche of the plan. The matching share plan ended in 2020.

Outokumpu used its treasury shares for all share reward payments.

Share-based payment plan opportunity

Maximum number of shares Dec 31, 2021	2022	2023	2024	Total
PSP 2019–2021	1,698,922			1,698,922
RSP 2019–2021	151,000			151,000
	1,849,922			1,849,922
PSP 2020–2022		2,575,202		2,575,202
RSP 2020–2022		170,000		170,000
		2,745,202		2,745,202
PSP 2021–2023			3,217,800	3,217,800
RSP 2021–2023	75,532	75,534	75,534	226,600
	75,532	75,534	3,293,334	3,444,400
Total	**1,925,454**	**2,820,736**	**3,293,334**	**8,039,524**

The general terms and conditions of the outstanding share-based incentive programs

	Performance Share Plan		
Grant date	Feb 20, 2019	March 9, 2020	March 15, 2021
Vesting period	Jan 1, 2019–Dec 31, 2021	Jan 1, 2020–Dec 31, 2022	Jan 1, 2021–Dec 31, 2023
Number of participants	96	111	113
Share price at grant date, €	3.55	2.80	4.35
Exercised	In shares and cash in 2022	In shares and cash in 2023	In shares and cash in 2024
Vesting conditions			
Non-market	Outokumpu's return on operating capital compared to a peer group	Outokumpu's return on operating capital compared to a peer group	Outokumpu's return on capital employed as an absolute measure
Other relevant conditions	Continuation of employment until the shares are delivered, a salary-based limit for the maximum benefits	Continuation of employment until the shares are delivered, a salary-based limit for the maximum benefits	Continuation of employment until the shares are delivered, a salary-based limit for the maximum benefits

	Restricted Share Pool Program		
Grant date	April 18, 2019	March 9, 2020	March 15, 2021
Vesting period	Jan 1, 2019–Dec 31, 2021	Jan 1, 2020–Dec 31, 2022	Jan 1, 2021–Dec 31, 2023
Number of participants	56	35	62
Share price at grant date, €	3.72	2.80	4.35
Exercised	In shares and cash in 2022	In shares and cash in 2023	In shares and cash, in 3 installments in 2022, 2023 and 2024
Vesting conditions	Continuation of employment until the shares are delivered, a salary-based limit for the maximum benefits		

Management judgements

In valuing the share-based payment plans, the management estimates the likelihood of achieving the non-market performance criteria and the number of participants remaining in the plan when the vesting period ends.

The evaluation of the likelihood of achieving the non-market performance criteria uses mainly external financial forecasts but also internal forecasts are used. The number of participants remaining in plans at the end of the vesting period is estimated based on historical forfeit ratios of similar plans. Also potential impacts from restructuring activities carried out in the Group are considered in the estimate.

Accounting principles

The share-based payments are settled net of tax withholdings, and they are accounted as fully equity-settled. The expense of the programs recognized over vesting periods is based on the grant date fair value and is reported as employee benefit expenses within the administrative expenses in profit or loss.

Applicable statistical models are used in valuation, and the valuation is revised at the end of each reporting period based on the likelihood of achieving the non-market performance criteria and the estimated retention rate of the participants.

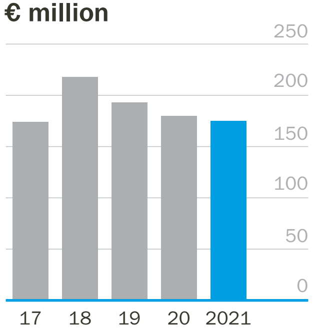
The salary-based maximum limits for the pay-outs have been taken into account in the valuation of the benefits.

Detailed information of the share-based incentive programs can be found in Outokumpu's home page www.outokumpu.com.

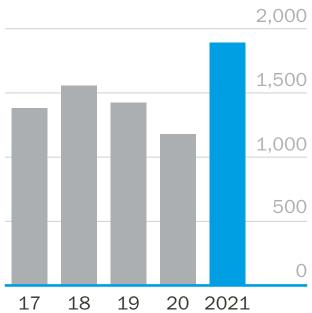
4. Operating assets and liabilities

* Capital expenditure definition changed from accrual-based to cash-based capital expenditure in 2020. Figures for 2019 and 2018 have been restated accordingly. Figure for 2017 has not been restated.

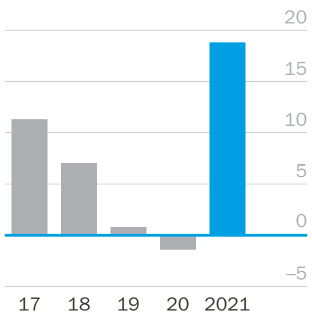
Capital expenditure*, € million



Inventories, € million



Return on capital employed, %



In line with the strategic focus to de-leverage the company, Outokumpu continued the tight capital expenditure discipline also in 2021. The Group's main capex project, the Kemi mine expansion, is expected to be finalized with approximately 6 months' delay in 2022. Outokumpu's working capital increased in 2021, and approximately 60% of the inventory increase came from metal prices. Return on capital employed shows the strong overall performance in 2021.

4.1 Intangible assets and property, plant and equipment

Intangible assets

2021 € million	Goodwill	Other intangible assets	Total
Historical cost on Jan 1, 2021	485	377	862
Translation differences	–2	1	–1
Additions	–	10	10
Disposals	–1	–24	–24
Reclassifications	–	3	3
Historical cost on Dec 31, 2021	**482**	**367**	**849**
Accumulated amortization and impairment on Jan 1, 2021	–19	–232	–252
Translation differences	1	0	1
Amortization	–	–17	–17
Impairments	–	–18	–18
Disposals	1	12	13
Accumulated amortization and impairment on Dec 31, 2021	**–17**	**–255**	**–272**
Carrying value on Dec 31, 2021	**465**	**112**	**577**
Carrying value on Jan 1, 2021	466	144	610

Impairments in other intangible assets relate mainly to the Group's ERP systems.

2020 € million	Goodwill	Other intangible assets	Total
Historical cost on Jan 1, 2020	487	361	848
Translation differences	–2	0	–2
Additions	–	17	17
Disposals	–	–4	–4
Reclassifications	–	2	2
Historical cost on Dec 31, 2020	485	377	862
Accumulated amortization and impairment on Jan 1, 2020	–21	–220	–241
Translation differences	2	–1	1
Amortization	–	–15	–15
Disposals	–	3	3
Accumulated amortization and impairment on Dec 31, 2020	–19	–232	–252
Carrying value on Dec 31, 2020	466	144	610
Carrying value on Jan 1, 2020	466	141	607

Emission allowances

Outokumpu had six active sites operating under EU's Emissions Trading Scheme (EU ETS) in 2021. These include the production plants in Tornio, Finland; Avesta, Degerfors, Fagersta and Nyby in Sweden; as well as Krefeld together with Dillenburg in Germany. Additionally, Outokumpu's site in Sheffield in the UK operates under the UK Emission Trading Scheme (UK ETS). There is no link between the EU ETS and UK ETS and allowances in each ETS are not transferrable nor convertible. All Outokumpu sites met the compliance requirements on time regarding the EU ETS Phase III.

The pre-verified carbon dioxide emissions under EU ETS were approximately 1.0 million tonnes in 2021 (2020: 1.0 million tonnes). For its 2021 emission allowance delivery, Outokumpu will use allowances received for free, but also allowances acquired from market in prior years, the cost of which has been recognized as other operating expenses.

The Group's emission position is composed of realized and forecasted carbon emissions netted against confirmed and forecasted emission allowances granted by governments. All relevant Outokumpu sites applied for free emission allowances for 2021–2030 trading period according to the efficiency-based benchmarks and historical activity, and the allocations for the first half of the period have been confirmed. These allocations combined with the allowances held from prior period are adequate to cover the forecasted needs of EU emission allowances for the first half of the trading phase (2021–2025).

The emission allowance price risk is presented in the note 5.3 under Energy price risk.

Property, plant and equipment

2021 € million	Land	Mine properties	Buildings	Machinery and equipment	Other tangible assets	Advances paid and construction work in progress	Total
Historical cost on Jan 1, 2021	123	112	1,283	4,668	137	330	6,654
Translation differences	2	–	15	62	0	2	80
Additions	4	17	2	36	9	99	167
Disposals	–7	0	–37	–172	0	–1	–218
Reclassifications	–	0	0	36	4	–44	–4
Other	–5	–	–4	–58	–	–	–66
Historical cost on Dec 31, 2021	**117**	**130**	**1,259**	**4,575**	**149**	**384**	**6,614**
Accumulated depreciation and impairment on Jan 1, 2021	–16	–48	–766	–3,105	–86	–2	–4,023
Translation differences	0	–	–3	–20	0	0	–22
Disposals	–	–	36	172	0	1	210
Depreciation	–1	–12	–47	–176	–6	0	–242
Impairments	–4	–10	–7	–7	0	0	–27
Other	4	–	4	56	–	–	–63
Accumulated depreciation and impairment on Dec 31, 2021	**–18**	**–70**	**–782**	**–3,079**	**–91**	**0**	**–4,041**
Own property, plant and equipment	68	59	452	1,387	57	384	2,407
Right-of-use assets	31	–	25	109	0	–	166
Carrying value on Dec 31, 2021	**99**	**59**	**477**	**1,496**	**58**	**384**	**2,573**
Carrying value on Jan 1, 2021	107	64	517	1,563	51	328	2,631

Impairments in property, plant and equipment include mine properties and obsolete machinery in Ferrochrome business area, lease agreements on land and buildings in the business area Europe's operations in Germany and various obsolete machinery and equipment items in the Group.

1. 1.1 1.2 2. 2.1 2.2 2.3 2.4 2.5 2.6 2.7 3. 3.1 3.2 3.3 3.4 4. 4.1 4.2 4.3 4.4 4.5 4.6 5. 5.1 5.2 5.3 5.4 5.5 5.6 5.7 6. 6.1 6.2 6.3 6.4 6.5

2020 € million	Land	Mine properties	Buildings	Machinery and equipment	Other tangible assets	Advances paid and construction work in progress	Total
Historical cost on Jan 1, 2020	128	72	1,286	4,691	135	294	6,606
Translation differences	–2	–	–12	–46	1	–3	–62
Additions	2	17	10	37	1	102	169
Disposals	–4	–	–10	–43	–1	–	–58
Reclassifications	–	23	8	31	1	–64	–2
Other	0	–	1	–2	–	–	0
Historical cost on Dec 31, 2020	123	112	1,283	4,668	137	330	6,654
Accumulated depreciation and impairment on Jan 1, 2020	–15	–39	–719	–2,983	–82	–2	–3,840
Translation differences	0	–	0	1	–1	0	1
Disposals	–	–	3	43	1	–	46
Depreciation	–1	–9	–47	–165	–4	0	–227
Impairments	–	–	–2	–1	–	–	–3
Accumulated depreciation and impairment on Dec 31, 2020	–16	–48	–766	–3,105	–86	–2	–4,023
Own property, plant and equipment	70	64	481	1,457	51	327	2,450
Right-of-use assets	37	–	37	106	0	1	181
Carrying value on Dec 31, 2020	107	64	517	1,563	51	328	2,631
Carrying value on Jan 1, 2020	112	33	567	1,708	53	293	2,767

Intangible assets and property, plant and equipment by geographical region

€ million	**2021**	2020
Finland	**1,726**	1,774
Other Europe	**679**	732
North America	**733**	723
APAC region	**10**	10
Other countries	**2**	2
	3,150	3,241

Capitalized interest expenses

During 2021, borrowing costs amounting to EUR 3 million were capitalized on investment projects under property, plant and equipment and intangible assets (2020: EUR 3 million). Total capitalized interests on December 31, 2021 were EUR 32 million (Dec 31, 2020: EUR 31 million). The average capitalization rate used in 2021 was 1.2%.

Management judgements

Management estimates relating to useful lives and recoverable amounts affect significantly the intangible asset and property, plant and equipment values in the consolidated statement of financial position, and different assumptions and assigned lives could have a material impact on the reported amounts.

Carrying amounts of intangible asset and property, plant and equipment items are regularly reviewed for any evidence of impairment. If any such evidence emerges, the asset's recoverable amount is assessed, which requires estimation of future cash flows attributable to the asset and related valuation parameters.

Indications for changes in useful lives are reviewed annually, and if changes to previous estimates are identified, the useful lives are revised accordingly. If an impairment loss is recognized, the estimated useful life of the asset is also reassessed.

Accounting principles

Intangible assets other than goodwill include capitalized development costs, patents, licenses and software. These assets comprise mainly of acquired assets that typically have definite useful lives. An intangible asset is recognized if it is probable that the asset will generate future economic benefits to the company and the cost of the asset can be measured reliably.

Property, plant and equipment consist mainly of facilities, machinery and equipment used in stainless steel and ferrochrome production.

Intangible assets and property, plant and equipment are recognized initially at cost. Cost comprises of the asset's purchase price and all costs directly attributable to bringing the asset ready for its intended use. Government grants received for investment purposes are deducted from the asset's cost. Intangible assets and property, plant and equipment acquired in a business combination are measured at fair value at the acquisition date.

Borrowing costs (mainly interest costs) directly attributable to the acquisition of an asset are capitalized in the statement of financial position as part of the asset's carrying amount, when it takes a substantial period of time to get the asset ready for its intended use.

After initial recognition, intangible assets and property, plant and equipment are measured at cost less accumulated amortization, depreciation and impairment losses. Intangible assets and property, plant and equipment, other than land and mine properties, are amortized or depreciated on a straight-line basis over their expected useful lives. Assets tied to a certain fixed period are amortized over the contract term.

Amortization of intangible assets are based on the following estimated useful lives:

Software	up to 10 years
Capitalized development costs	up to 10 years
Intangible rights	up to 20 years

Depreciation of property, plant and equipment items is based on the following estimated useful lives:

Buildings	25–40 years
Heavy machinery	15–30 years
Light machinery and equipment	3–15 years

Land is not depreciated, except for leased land, as the useful life of land is assumed to be indefinite. Mine properties include preparatory work to utilize an ore body or part of it, such as shafts, ramps and ventilation and are depreciated using the units-of-production method based on the depletion of ore reserves over their estimated useful lives. Other tangible assets include items such as land improvements, asset retirement obligations related to landfill areas and infrastructure within the facilities, such as roads and railroads.

Recognition of amortization or depreciation on an asset is ceased when the item is classified as held for sale.

If evidence regarding an impairment of an asset is identified, the asset's recoverable amount is estimated as the higher of the fair value less costs to sell or the value in use. If the carrying amount of an asset exceeds its recoverable amount, an impairment loss is recognized. A previously recognized impairment loss is reversed if there is a change in the recoverable amount. However, the reversal must not result in a higher carrying amount than what it would have been if no prior impairment loss had been recognized. Impairment losses are presented as other operating expenses in the consolidated statement of income.

Gains or losses on disposals of property, plant and equipment or intangible assets are determined as the difference between the net proceeds received and the carrying amount of the asset. These gains or losses are presented in other operating income or expenses.

Goodwill

Goodwill arises from business combinations and is recognized at the acquisition date at the amount excess of the consideration transferred over the fair value of the identifiable assets acquired, liabilities assumed and any non-controlling interest and any previously held equity interests in the acquiree. Goodwill is not amortized but tested for impairment. Goodwill is measured at cost less accumulated impairment losses. Impairment losses on goodwill cannot be subsequently reversed. See note 4.3 for goodwill impairment testing.

Emission allowances

Emission allowances are reported as other intangible assets. They are measured at cost and initially recognized when control is obtained. Allowances received free of charge are recognized at nominal value, i.e. at zero carrying amount. Emission allowances are derecognized against the actual emissions, or when the emission allowances are sold.

Emission allowance expense is recognized when emission allowances received free of charge do not cover the annual emissions for the difference based on the cost of the purchased allowances. In case the Group does hold sufficient allowances to cover the actual emissions, a provision is recognized at fair value at the end of the reporting period. The expenses are presented as other operating expenses. Gains from the sale of allowances are recognized as other operating income.

4.2 Leases

Outokumpu leases land, buildings, and machinery and equipment used in the Group's operations. Outokumpu has also entered into service and supply contracts that contain lease elements. Contracts include typically fixed rental amounts, and for land and buildings, rents are linked to an index.

The terms of new vehicle leases are typically 3 to 5 years, and lease terms for other machinery and equipment range up to 15 years. Lease terms for land and buildings can be significantly longer with remaining terms for individual contracts on land of approximately 45–95 years.

Leases for machinery and equipment include also contracts with variable lease payments based on usage of the equipment. Machinery and equipment are also hired with daily rates for temporary use, in which case they are reported as short-term leases.

Right-of-use assets

2021 € million	Land	Buildings	Machinery and equipment	Advances paid	Total
Historical cost on Jan 1, 2021	41	49	210	1	301
Additions	0	2	29	0	31
Other changes	–5	–4	–56	–1	–65
Historical cost on Dec 31, 2021	**36**	**47**	**183**	**0**	**266**
Accumulated depreciation on Jan 1, 2021	–3	–13	–104	–	–120
Depreciation and impairments	–4	–13	–26	–	–44
Other changes	4	4	57	–	66
Accumulated depreciation and impairment on Dec 31, 2021	**–4**	**–22**	**–75**	**–**	**–101**
Carrying value on Dec 31, 2021	**31**	**25**	**109**	**–**	**166**
Carrying value on Jan 1, 2021	37	37	106	1	181

2020 € million	Land	Buildings	Machinery and equipment	Advances paid	Total
Historical cost on Jan 1, 2020	41	42	204	–	286
Additions	0	8	8	1	16
Other changes	0	0	–2	–	–2
Historical cost on Dec 31, 2020	41	49	210	1	301
Accumulated depreciation on Jan 1, 2020	–2	–6	–77	–	–85
Depreciation	–1	–6	–27	–	–34
Accumulated depreciation on Dec 31, 2020	–3	–13	–104	–	–120
Carrying value on Dec 31, 2020	37	37	106	1	181
Carrying value on Jan 1, 2020	38	35	126	–	200

Lease liabilities

€ million	**2021**	2020
Non-current	**157**	174
Current	**32**	18
	189	192

Maturity analysis of lease liabilities is presented in note 5.1.

Lease expenses

€ million	**2021**	2020
Depreciation	**–34**	–34
Impairments	**–10**	–
Interest expenses	**–11**	–12
Expenses on short-term and low-value leases	**–9**	–11
	–65	–56

Impairments are related to lease contracts of land and buildings in Germany.

Lease cash flows

€ million	**2021**	2020
Repayments	**–32**	–33
Interest paid	**–11**	–12
	–43	–45

Management judgements

Management judgement and estimates relate mainly to incremental borrowing rates of the Group companies, the probabilities of utilizing extension options in lease contracts and lease terms applied for contracts that are valid until further notice, which impact the reported amounts of lease liabilities and right-of-use assets.

The incremental borrowing rates are defined as part of the process to determine interest rates for intra-group lending, in which Outokumpu defines synthetic ratings for the subsidiaries. The incremental borrowing rate takes into account the currency, the maturity of the lease liability, the credit risk of the lessee based on the synthetic rating, and country risk.

The contracts with extension options are reviewed regularly to evaluate the probability of utilization based on information available.

Contracts that are valid until further notice represent only a small amount of Group's lease contracts, as most contracts have a fixed term. The lease terms for the contracts that are valid until further notice are either defined based on the Group's mid-term planning cycle of 3 years or treated as short-term depending of the type of the asset.

The Group applies materiality in defining low-value items for lease accounting purposes.

Accounting principles

Lease liabilities measured at the present value of future lease payments are recognized to the statement of financial position. In determining the present value of the lease liabilities, the fixed and index/rate-based lease payments are discounted with the interest rate implicit to the lease when available, or with the incremental borrowing rate of the company.

Lease payments are divided into interest expense and repayment of the lease liability. Lease contracts may include options to extend the contract term or purchase the leased asset at the end of the lease term. An option is considered in determining the lease liability when it is highly probable that the option will be used.

Right-of-use assets recognized to the statement of financial position are measured at the amount of lease liability and lease payments made in advance, less accumulated depreciation and impairments. Right-of-use assets are depreciated on a straight-line basis over the lease term, or over the expected useful life of the asset in case the asset will transfer to Outokumpu at the end of the lease term or it is highly probable that a purchase option will be used.

Lease liabilities are presented in non-current and current debt and right-of-use assets are presented in property, plant and equipment in consolidated statement of financial position.

Lease liabilities or right-of-use assets relating to short-term leases, leases of low value items, or intangible assets are not recognized to statement of financial position. Instead, related payments, as well as variable lease payments, are recognized as expense to the profit or loss.

Sale and lease-back

So-called sale and lease-back transactions by the Group in 2019 or later (i.e. in accordance with IFRS 16) do not typically meet the IFRS 15 criteria of a sale, as Outokumpu typically retains the control of the asset. Consequently, they do not meet the criteria of sale and lease-back, either. The asset remains in Outokumpu's property, plant and equipment at cost less accumulated depreciation and impairments. The proceeds of the transaction are recognized as other loans under non-current or current debt.

Sale and lease-back transactions carried out prior to 2019 have been treated according to the accounting principles prevailing at the time.

Group as a lessor

Rental income received from property, plant and equipment leased out by the Group under operating leases is recognized on a straight-line basis over the lease term. Rental income is presented as other operating income.

4.3 Goodwill impairment test

Goodwill and operating capital by operating segment

	Goodwill		Operating capital	
€ million	**2021**	2020	**2021**	2020
Europe	**342**	343	**1,724**	1,573
Americas	**–**	–	**879**	801
Ferrochrome	**114**	114	**823**	766
Long Products	**9**	9	**157**	133
Other operations and intra-group items	**–**	–	**–60**	13
	465	466	**3,523**	3,286

Assumptions by operating segment

	Europe	Americas	Ferro-chrome	Long Products
2021				
Weighted average costs of capital (WACC), pre-tax, %	**8.3**	**10.4**	**8.4**	**9.3**
Terminal growth rate, %	0.5	1.0	0.5	0.5
2020				
Weighted average costs of capital (WACC), pre-tax, %	8.2	10.1	8.1	9.1
Terminal growth rate, %	0.5	1.0	0.5	0.5

Test results and sensitivities by operating segment

2021	Europe	Americas	Ferro-chrome	Long Products
Headroom, € million	1,124	248	226	82
After-tax WACC increase leading to impairment, %-points	5.0	2.3	1.9	5.2
EBITDA decrease leading to impairment, %	27	15	15	27
Terminal growth rate of zero leading to impairment	No	No	No	No

Headroom is the amount by which the recoverable amount determined based on the value-in-use analysis exceeds the segment's operating capital amount.

Goodwill impairment testing

Goodwill impairment testing is carried out on operating segment level, as they correspond to the Group's cash-generating units (CGUs) and the goodwill allocation level.

The recoverable amounts of the cash-generating units are based on value-in-use calculations that are prepared using discounted cash flow projections. These projections are based on the Group's strategy approved by the management, and include cash flow forecasts for 2022–2027 after which the terminal value is calculated.

The carrying amount to which the recoverable amount is compared, is the operating capital of the segment, defined in the Alternative performance measures section of the Review by the Board of Directors.

As a result of the impairment test to Group's cash-generating units, no goodwill impairment losses were recognized in 2021 nor 2020.

Management judgements

Key assumptions of the value-in-use calculations include the discount rate, the terminal value growth rate, the average global growth in end-use consumption of stainless steel and base price development. Assumptions also include estimates on delivery volume and capital expenditure development, and cost savings related to on-going strategy-implementation related initiatives.

As the recovery of the global economy from the COVID-19 pandemic is still on going, the estimates also include assumptions relating to the timing and pace of the recovery, and eventual stabilization of the economy and stainless steel demand.

Cash flow forecasts are discounted using the weighted average pre-tax cost of capital (WACC) as defined for Outokumpu. The components of WACC are risk-free yield rate, Outokumpu credit margin, market risk premium, equity beta, and the Group target capital structure.

Management believes in general that the assumptions used in the value-in-use calculations are conservative based on current economic circumstances. Growth rates assumed for stainless steel deliveries are generally lower than independent analysts' view on long-term market development.

Accounting principles

Goodwill is allocated to and tested for impairment on operating segment level, which correspond to the Group's cash-generating units (CGUs), and the lowest level goodwill is monitored. Impairment test is carried out on annual basis, or more frequently when there is evidence of potential goodwill impairment.

In goodwill impairment testing, the recoverable amounts are based on value in use determined by discounted future net cash flows expected to be generated by the cash-generating unit. The discount rate used is a pre-tax rate that reflects the current market view on the time value of money and the CGU-specific risks.

An impairment loss is the amount by which the carrying amount of the segment's assets exceeds its recoverable amount. Impairment losses are recognized first on goodwill and after that on other intangible and tangible assets. In the consolidated statement of income impairments are presented in other operating expenses. Impairment losses related to goodwill cannot be subsequently reversed.

4.4 Inventories

€ million	2021	2020
Raw materials and consumables	**524**	387
Work in progress	**875**	419
Finished goods and merchandise	**485**	369
Advance payments	**8**	2
	1,892	1,177

Net realizable value write-downs of EUR 3 million were recognized in the profit or loss during 2021 (2020: reversal of write-downs of EUR 15 million).

In 2021, Outokumpu continued to apply cash flow hedge accounting for three selected nickel hedging programs. More details on commodity price risk and hedge accounting are presented in notes 5.3 and 5.4.

Management judgements

Management judgement and estimates are applied in net realizable value (NRV) and inventory obsolescence analysis.

NRV calculation requires estimates on sales prices for products to be sold in the future to the extent the prices are not known, which can be a significant part of the future prices. Due to fluctuations in nickel and other alloy prices, which are the most important commodity price risks for Outokumpu, the realized prices can deviate significantly from the estimates used in NRV calculations.

The alloy surcharge clause as well as daily fixed pricing of stainless steel reduce the risk arising from the time difference between raw material purchase and product delivery. However, the risk is still significant because the delivery cycle in production is longer than the alloy surcharge mechanism expects and the daily fixed pricing can also deviate from this cycle depending on the timing of the delivery.

Inventory obsolescence for stainless steel products is estimated based on internal guidelines of slow-moving inventory.

Accounting principles

Inventories are stated at the lower of cost and net realizable value. These are defined with different methodologies depending on the type of inventory.

The cost of raw materials is determined as monthly weighted average of the actual raw material cost. The cost of self-produced finished goods and work in progress comprises of raw materials, direct labor, other direct costs and related production and procurement overheads. Cost of purchased products includes all purchasing costs including direct transportation, handling and other costs.

NRV is calculated as the estimated selling price in the ordinary course of business, less the estimated costs of completion and the estimated costs attributable to the sale. Obsolete stainless steel products are valued at scrap value. Spare parts are carried as inventory and their cost is recognized in profit or loss as consumed.

Major spare parts are recognized in property, plant and equipment when they are expected to be used over more than one year.

4.5 Trade and other receivables and payables

Trade and other receivables

€ million	2021	2020
Non-current		
Non-current receivables and accruals	**5**	1
Current		
Trade receivables	**597**	384
VAT receivable	**68**	44
Income tax receivable	**21**	23
Escrow deposits	**15**	–
Prepaid insurance expenses	**10**	10
Other accruals	**66**	35
Other receivables	**9**	41
	786	537
Loss allowance on trade receivables		
On Jan 1	**5**	7
Reduction in loss allowance	**0**	–1
On Dec 31	**5**	5
Age analysis of trade receivables		
Not overdue	**549**	362
Past due 1–30 days	**33**	17
Past due 31–60 days	**8**	3
More than 60 days	**8**	2
	597	384

Factored trade receivables

Outokumpu uses factoring to finance its working capital. Under these arrangements, Outokumpu has on December 31, 2021 derecognized trade receivables totaling EUR 420 million (2020: EUR 269 million), which represents fair value of the assets. Net proceeds received amounted to EUR 412 million (2020: EUR 263 million). The underlying assets have maturity of less than one year.

The maximum amount of loss related to derecognized assets is estimated to be EUR 12 million (2020: EUR 10 million). This estimate is based on insurance policies and contractual arrangements between factoring companies and Outokumpu. The analysis does not include impact of any operational risk related to Outokumpu's contractual responsibilities.

Trade and other payables

€ million	2021	2020
Non-current		
VAT payable	**–**	18
Accruals	**23**	27
	23	45
Current		
Trade payables	**1,802**	1,225
Accrued employee-related expenses	**109**	73
Accrued interest expenses	**6**	11
VAT payable	**119**	86
Withholding tax and social security liabilities	**21**	21
Advance payments received	**27**	7
Other accruals	**76**	55
Other payables	**7**	22
	2,166	1,500

Non-current and current VAT payables on December 31, 2021 include EUR 18 million of VAT payments that were deferred for two years in Finland in 2020 as part of the state COVID-19 relief program (Dec 31, 2020: EUR 61 million).

Liabilities related to customer contracts

On December 31, 2021, accrued volume discounts related to customer contracts amounted to EUR 45 million (Dec 31, 2020: EUR 34 million). These are reported as other current accruals.

The liabilities related to the unperformed transportation service were not material on December 31, 2021, and these liabilities as well as advance payments received are expected to be recognized as revenue over the following three months.

Risk information

Credit risk

Outokumpu's sales are covered by approved credit limits or secured payment terms. Most of the outstanding trade receivables have been secured by trade credit insurances, which typically cover some 92% of the insured amount. Part of the credit risk related to trade receivables is managed with letters of credit, advance payments and guarantees.

On December 31, 2021, the maximum exposure to credit risk of trade receivables was EUR 597 million (2020: EUR 384 million). The portion of unsecured receivables during 2021 has been approximately 7–9% of all trade receivables. During 2021, credit limits have remained available from the insurer and there is no significant change in the insurance cover. Outokumpu has frequently monitored credit risk and the overdue situation and continued its close co-operation with the insurers. Outokumpu uses factoring, which transfers most risks and rewards to the buyer of the receivables. At the end of the year 2021, most of the receivables were generated by a large number of customers and there were only few risk concentrations.

Country risk

Exposure to country risk is monitored and reduced by having credit insurance that provides cover against political risk on external trade receivables. At year-end, main country related exposures included for example Argentina, due to Outokumpu's local and cross-border business activities in the country.

Accounting principles

Trade and other receivables and payables include financial assets or liabilities measured at amortized cost. After initial recognition, they are measured at amortized cost by using the effective interest rate method. Trade and other receivables are valued less accumulated impairments.

Factored trade receivables

Factored trade receivables have been derecognized from the statement of financial position when the related risks and rewards of ownership have materially been transferred to the counterparty of the factoring transaction.

Expected credit losses

Outokumpu applies simplified model in assessing and recognizing loss allowance for expected credit losses on trade receivables. The calculation model is based on overdue statistics and counterparty-specific credit ratings linked with loss probabilities for each rating. Loss allowances are recognized in selling and marketing expenses in the consolidated statement of income.

Liabilities related to customer contracts

Liabilities related to customer contracts include accrued volume discounts, advance payments received and liabilities related to transportation service not yet performed. Accrued volume discounts have been recognized as reductions in revenue during the financial year.

4.6 Provisions

2021 € million	Environmental provisions	Restructuring provisions	Other provisions	Total
Provisions on Jan 1, 2021	48	62	5	115
Translation differences	0	0	1	1
Increases in provisions	20	2	21	42
Utilized during the financial year	0	–46	–1	–47
Unused amounts reversed	–10	–8	–1	–19
Reclassifications	–	–3	1	–1
Provisions on Dec 31, 2021	**57**	**8**	**26**	**91**

2020 € million	Environmental provisions	Restructuring provisions	Other provisions	Total
Provisions on Jan 1, 2020	48	56	5	110
Increases in provisions	3	50	2	54
Utilized during the financial year	–2	–43	–1	–45
Unused amounts reversed	–1	–1	–1	–4
Provisions on Dec 31, 2020	48	62	5	115

€ million	**2021**	2020
Non-current provisions	**63**	84
Current provisions	**29**	31
	91	115

Environmental provisions

In 2021, Outokumpu recognized an increase in environmental provisions of EUR 10 million relating to the aftercare of closed mines in Finland.

The majority of the environmental provisions are for closing costs of production facilities and landfill areas, removal of problem waste and landscaping in facilities in Finland, the UK, and Germany and aftercare of closed mines in Finland. The outflow of economic benefits related to environmental provisions is expected to take place mainly over a period of more than 10 years. Due to the nature of these provisions, there are uncertainties regarding both the amount and the timing of the outflow of economic benefits.

Restructuring provisions

Restructuring provisions relate mainly to the redundancies in selected countries as a result of employee negotiations in 2020 to generate cost savings. The cash outflows related to these provisions took predominantly place in 2021.

Other provisions

Other provisions comprise for example provisions for litigations, product and other claims and are mainly current in nature. In 2021, the increase in other provisions is mainly related to litigation provisions.

Management judgements

Provisions are based on management's best estimates at the end of the reporting period.

Regarding environmental provisions, the management judgements and estimates relate mainly to the timing and the scope of the activities to be carried out as well as the cost of such activities in the future. Environmental expenditure related to dismantling an entire production facility and restoring the area are generally estimated when decision on a site closure is made.

As actual outflows can differ from estimates due to changes in law, regulations, public expectations, technology, prices and conditions, and can take place in many years in the future, the provisions are regularly reviewed to take such changes into account.

Regarding restructuring provisions, the judgements and estimates mainly relate to the amounts of termination benefits to employees.

Accounting principles

A provision is recognized when Outokumpu has a present legal or constructive obligation as a result of a past event, and it is probable that an outflow of economic benefits will be required to settle the obligation and the amount can be reliably estimated. Provisions relate mainly to environmental liabilities, restructuring plans, onerous contracts and litigations. Non-current provisions are discounted to present value at the end of the reporting period using risk-free discount rates.

Environmental expenditure arising from restoring the conditions caused by past operations are recognized as expenses when they are incurred. Environmental provision is recognized when the Group has an obligation to decommission or remove a facility or equipment, rehabilitate environmental damage, or landscape and restore an area. The recognition of environmental provisions is based on current interpretation of the effective environmental laws and regulations related to the Group.

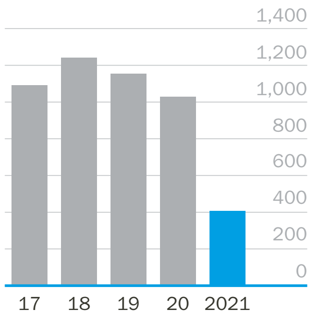
When environmental expenditure will arise from future asset retirement obligations, an item of property, plant and equipment corresponding to the amount of the provision is recognized, and the cost will be depreciated over the asset's useful life. Subsequent adjustments to the provision are deducted from or added to the cost of the corresponding asset in a symmetrical manner.

A restructuring provision is recognized when a detailed restructuring plan has been prepared and its implementation has been started or the main parts of the plan have been communicated to those, who are impacted by the plan. Restructuring provision mainly comprise of employee termination benefits.

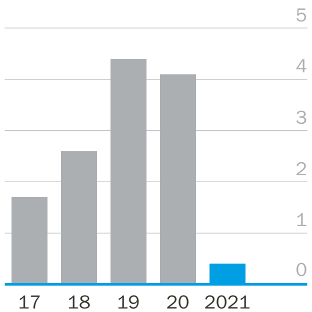
Any potential compensation from a third party is not included in the amount of the provision but recognized as a separate asset when it is virtually certain that the compensation will be received.

5. Capital structure and financial risk management

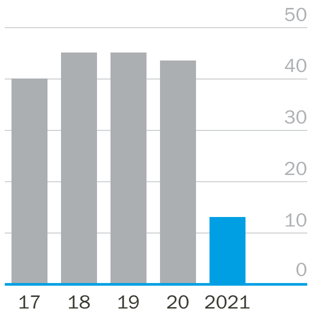
Net debt, € million



Net debt to adjusted EBITDA



Debt-to-equity ratio, %



Outokumpu took decisive steps in de-leveraging in 2021 and improved its credit rating from B3 to Ba3. Strong financial performance together with the directed share issue resulted in a significant reduction in net debt and improvement in key ratios. Prepayment of loans, the voluntary redemption of the 2024 bond as well as improvements in the interest margins led to a sizeable reduction in finance costs.

Capital structure

€ million	2021	2020
Total equity	**3,120**	2,360
Total debt	**709**	1,404
Total capitalization	**3,828**	3,764
Net debt	**408**	1,028

The capital structure is regularly monitored by management through the company's leverage ratio. The debt-to-equity ratio and net debt to adjusted EBITDA improved considerably during 2021 as a result of the good development in profitability driven by the successful strategy implementation and favorable market conditions. In addition, strong cash flow allowed debt reduction and had a positive impact on the Group's net debt.

The main objective of capital management is to secure the ability to operate on a going concern basis to enhance value to shareholders and to optimize the cost of capital. Outokumpu seeks to maintain access to loan and capital markets at all times and to preserve sufficient liquidity. The Board of Directors reviews the Group's capital structure on a regular basis. Capital structure and debt capacity are taken into account e.g. in investment, dividend and debt decisions.

Equity is managed through dividend policy, share buybacks and issuances of equity or equity-linked securities. In 2021, Outokumpu strengthened its balance sheet by launching a directed equity issue with gross proceeds of EUR 209 million targeted to a selected group of institutional investors.

Tools to manage debt include raising new debt in various forms, establishing financing facilities, prepaying and cancelling loans, notes and other financing facilities in order to optimize the maturity structure of the debt portfolio and to minimize finance costs.

In 2021, Outokumpu extended the maturity of its main financing facilities and also prepaid a considerable amount of its outstanding debt.

In 2021, the Moody's corporate family rating for Outokumpu improved from B3 to Ba3 with a stable outlook.

5.1 Net debt and capital management

The main focus in 2021 on debt management was to fulfill the strategic target of de-risking the company by deleveraging the balance sheet in order to create shareholder value. The strong cashflow together with the proceeds from the directed equity issue in May 2021 enabled the company to decrease its net debt to a level of EUR 408 million at the year-end 2021. In addition to redeeming the 2024 Notes, a major part of the sustainability linked term loan was prepaid. Furthermore, the amount of commercial papers issued was reduced significantly.

In April, Outokumpu utilized the first extension option of the SEK 1,000 million secured revolving credit facility, which is guaranteed by the Swedish Export Credit Agency EKN, and the facility was extended until end of May 2023. In May, Outokumpu carried out a directed share issue with gross proceeds of EUR 209 million and entered into a new EUR 24 million pension loan with a 5-year maturity. In June, Outokumpu agreed with its lenders to extend the maturities of the EUR 120 million sustainability linked term loan and EUR 532 million of its EUR 574 million (EUR 42 million matures in May 2022) syndicated revolving credit facility until the end of May 2024. In December, Outokumpu entered into a EUR 100 million secured revolving working capital facility with Finnvera Oyj. The 4-year facility, which is is guaranteed by the European Guarantee Fund is expected to be available for drawdown during the first quarter of 2022. Furthermore, the EUR 120 million Kemi mine facility is fully drawn.

The revolving credit facility totaling EUR 574 million and the sustainability linked term loan, the amount of which was reduced to EUR 50 million in December, are both secured by a comprehensive security package, which includes pledges on real estate in Tornio and Calvert, pledges of the shares in certain material subsidiaries and guarantees issued by many material subsidiaries. Outokumpu and its secured lenders have signed an intercreditor agreement in 2014, when the security package was originally created. The SEK 1,000 million revolving credit facility and the EUR 100 million revolving working capital facility from Finnvera Oyj are secured by pledges on real estate in Sweden and Germany respectively.

Net debt

€ million	2021	2020
Non-current		
Bonds	**–**	249
Convertible bonds	**112**	108
Loans from financial institutions	**163**	414
Pension loans	**154**	199
Lease liabilities	**157**	174
Other loans	**12**	8
	597	1,153
Current		
Loans from financial institutions	**7**	2
Pension loans	**13**	–
Lease liabilities	**32**	18
Commercial papers	**58**	231
Other loans	**1**	–
	112	251
Cash and cash equivalents		
Cash at bank and in hand	**295**	374
Short-term bank deposits and cash equivalents	**5**	2
	300	376
Net debt	**408**	1,028

The average effective interest rate of cash and cash equivalents at the end of 2021 was 0% (Dec 31, 2020: 0%).

Net debt development

€ million	2021	2020
Net cash flow from operating activities	**597**	322
Net cash flow from investing activities	**–149**	–175
Cash flow before financing activities	**448**	147
Directed share issue	**205**	–
Convertible bond equity portion	**–**	17
Cash flow impact on net debt	**653**	164
Net debt on Jan 1	**1,028**	1,155
Cash flow impact on net debt	**–653**	–164
Change in net debt, non-cash	**34**	37
Net debt on Dec 31	**408**	1,028

Changes in non-current and current debt

2021 € million	Non-current debt	Current portion of non-current debt	Non-current lease liabilities	Current portion of lease liabilities	Current debt	Total
On Jan 1	979	0	174	18	232	1,404
Financing cash flows	–523	–1	–	–32	–174	–730
Transfer to current debt	–22	22	–46	46	–	–
Other non-cash movements	6	–	29	–	–	35
On Dec 31	440	21	157	32	58	709

2020 € million	Non-current debt	Current portion of non-current debt	Non-current lease liabilities	Current portion of lease liabilities	Current debt	Total
On Jan 1	877	295	176	30	103	1,480
Financing cash flows	117	–296	–	–33	130	–82
Transfer to current debt	0	0	–21	21	–	–
Other non-cash movements	–14	2	19	–	0	6
On Dec 31	979	0	174	18	232	1,404

Other non-cash movements in debt consist mainly of effective interest including accrued arrangement fees. Other non-cash movements in lease liabilities consist of new lease agreements and changes in terms of existing agreements. The reconciliation of cash effective and non-cash movements in cash and cash equivalents is presented in the consolidated statement of cash flows.

Bonds

		Outstanding amount	
€ million	Interest rate, %	**2021**	2020
2018 fixed rate bond maturing on June 18, 2024	4.125	–	250

The bonds maturing in June 2024 were voluntarily redeemed by Outokumpu in December 2021.

Convertible bonds

		Outstanding amount	
€ million	Interest rate, %	**2021**	2020
2020 fixed rate bond maturing on July 9, 2025	5.000	**125**	125

The convertible bonds maturing in July 2025 can be converted into maximum of 38,191,261 ordinary shares in Outokumpu representing 8.4% of the outstanding shares at year end. The conversion period commenced on August 19, 2020 and will end on June 25, 2025. The current conversion price is set at EUR 3.273 per ordinary share. The conversion price is subject to adjustments for any dividend in cash or in kind as well as customary anti-dilution adjustments, pursuant to the terms and conditions of the bonds. On December 31, 2021, remaining part of the equity component of the convertible bond amounted to EUR 12 million (Dec 31, 2020: EUR 16 million).

Risk information

Liquidity and refinancing risk

Outokumpu raises most of its funding centrally and in co-ordination by the Treasury. The Group seeks to reduce its liquidity and refinancing risk by having sufficient amount of cash and committed long-term credit lines available and by maintaining a balanced debt maturity profile with diversified sources of funding. Efficient daily cash and liquidity management and the use of instruments such as commercial papers and currency swaps, also reduce the liquidity risk.

Finance and liquidity plans are prepared and reviewed regularly with a focus on forecasted cash flows, projected funding requirements, planned funding transactions and financial covenant headroom. The adequacy of liquidity reserves, the amounts of scheduled annual repayments of non-current debt compared to EBITDA as well as forecasted gearing and leverage ratios are key measures being considered.

Outokumpu is exposed to changes in credit margins as the development of the leverage ratio has an impact on the interest margin definition in some of the Group's loan agreements and as such on its interest and other financial expenses.

Accounting principles

Bonds, loans from financial institutions, pension and other loans are recognized at the settlement date and measured initially at fair value net of direct transaction costs. Subsequently they are carried at amortized cost using the effective interest rate method.

Transaction costs are amortized over the maturity of the borrowing using the effective interest rate method. A financial liability (or part of the liability) is derecognized when the liability ceases to exist, that is, when the obligation identified in a contract has been fulfilled or cancelled or is no longer effective.

The fair value of non-current debt is determined based on quoted prices for listed instruments. For loans the fair value is determined using the discounted cash flow method based on yields at the reporting date. The fair values of non-current debt are presented in note 5.5.

Fees related to revolving credit facilities are amortized over the expected facility term.

Convertible bonds

Convertible bonds are compound instruments with components of the bonds classified separately as financial liabilities and equity in accordance with the substance of the arrangement.

The liability component is recognized initially at fair value of a similar liability. The equity component is recognized initially at the difference between the fair values of the full bond and the liability component. Transaction costs are allocated to the components in proportion to their initial carrying amounts. The fair value includes the value of conversion rights.

Subsequently the liability component is measured at amortized cost with the effective interest method. At conversion or on expiry the equity component is reclassified within equity.

Lease liabilities

Accounting principles related to lease liabilities are presented in note 4.2.

Contractual cash flows

	2021						2020					
€ million	2022	2023	2024	2025	2026	2027–	2021	2022	2023	2024	2025	2026–
Bonds	–	–	–	–	–	–	–	–	–	250	–	–
Convertible bonds	–	–	–	125	–	–	–	–	–	–	125	–
Loans from financial institutions	7	14	64	14	14	56	2	5	340	10	10	51
Pension loans	13	31	29	23	19	53	–	13	43	37	31	76
Other loans	1	1	1	1	1	7	0	0	0	0	0	6
Commercial papers	58	–	–	–	–	–	231	–	–	–	–	–
Interest payments on debt and facility charges	25	21	16	10	4	8	56	50	36	20	10	22
Lease liabilities	32	18	16	14	14	97	18	17	15	15	14	113
Interest payments on lease liabilities	10	9	8	7	6	137	11	11	10	9	8	145
Trade and other payables	1,811	–	–	–	–	–	1,246	–	–	–	–	–
	1,957	**94**	**134**	**194**	**59**	**358**	1,564	96	444	341	198	413

Contractual cash flows related to derivative instruments are presented in note 5.4.

Credit facilities

		2021			2020		
€ million	Maturity	Total	Utilized	Available	Total	Utilized	Available
Committed revolving credit facility	May 2021	–	–	–	76	–	76
	May 2022	42	–	42	42	–	42
	May 2024	532	–	532	532	–	532
Committed Kemi mine investment facility	Sept 2030 [1]	–	–	–	120	86	34
Committed SEK 1,000 million revolving credit facility	May 2023	98	–	98	100	–	100
Committed facilities total		**672**	–	**672**	870	86	784
Uncommitted Finnish commercial paper program	N/A	800	58	742	800	231	569

[1] Facility raised in full in December 2021

Cash and cash equivalents

Cash and cash equivalents comprise cash in hand, deposits held at call with banks and other highly liquid investments with original maturities of three months or less. These are readily convertible to a known amount of cash with a low risk of any changes in the value. Bank overdrafts are reported as current debt.

5.2 Equity

Shares and related movements in equity

€ million	Number of shares, 1,000	Share capital	Premium fund	Invested unrestricted equity reserve	Treasury shares	Total
On Jan 1, 2020	411,775	311	714	2,103	–33	3,095
Shares delivered from the share-based payment programs	227	–	–	–	2	2
On Dec 31, 2020	412,002	311	714	2,103	–31	3,097
Shares delivered from the share-based payment programs	70	–	–	–	1	1
Directed share issue	40,500	–	–	205	–	205
On Dec 31, 2021	**452,572**	**311**	**714**	**2,308**	**–30**	**3,303**
Treasury shares	4,302					
Total number of shares on Dec 31, 2021	**456,874**					

Directed share issue

Based on the authorization granted by the Annual General Meeting 2021, Outokumpu issued 40,500,000 new shares directed to institutional investors on May 10, 2021, in deviation from the pre-emptive subscription right of the shareholders. The main purpose of the share issue was to accelerate Outokumpu's de-leveraging by using the proceeds to reduce gross debt.

The subscription price of the new shares was EUR 5.15 per share, corresponding to a discount of approximately 5.7% to the closing price of the Company's share on May 10, 2021. The gross proceeds of EUR 209 million were recorded in their entirety to the invested unrestricted equity reserve of Outokumpu Oyj. In the consolidated financial statements, the net proceeds are presented net of transaction costs, the net proceeds amounting to EUR 205 million.

Dividend policy and distributable funds

According to Outokumpu's dividend policy, the dividend pay-out ratio throughout a business cycle shall be in a range of 30–50% of the Group's net result.

On December 31, 2021, the distributable funds of the parent company totaled EUR 2,560 million of which retained earnings were EUR 228 million. The Board of Directors proposes to the Annual General Meeting in 2022 to pay a dividend of EUR 0.15 per share for the financial year 2021, a total of EUR 68 million. No dividend was paid for 2020.

Accounting principles

Shares and share capital

According to the Articles of Association, Outokumpu has one single class of shares and all shares have equal voting rights at General meetings. The shares do not have a nominal value.

Premium fund

Premium fund includes proceeds from share subscription and other contribution based on the old Finnish Limited Liability Companies Act for the part the contributions exceeded the account equivalent value allocated to share capital.

Other restricted reserves

Other restricted reserves include amounts transferred from the distributable equity under the Articles of Association or by a decision of the General Meeting of Shareholders, and other items based on the local regulations of the Group companies.

Invested unrestricted equity reserve

Invested unrestricted equity reserve includes the net proceeds from the rights issues in 2012 and 2014 and the directed share issue in 2021.

Fair value reserves

Fair value reserves include movements in the fair values of equity securities and hedge accounted derivative instruments.

Retained earnings

Retained earnings include remeasurements of defined benefit plans, treasury shares, cumulative translation differences and other retained earnings and losses.

Treasury shares

When the parent company or its subsidiaries purchase the company's own shares, the consideration paid, including any attributable transaction costs, net of taxes, is deducted from the parent company's equity as treasury shares until the shares are cancelled. When such shares are subsequently sold or reissued, any consideration received is recognized directly in equity.

Dividends

The dividend proposed by the Board of Directors is not deducted from distributable equity until approved by the Annual General Meeting of Shareholders. For the time period between the approval and the payment, the dividend to be paid is presented in current trade and other payables.

5.3 Financial risk management and insurances

The main objectives of financial risk management are to reduce earnings volatility and to secure sufficient liquidity to avoid financial distress. Other objectives include the reduction of cash flow volatility and the maintenance of the debt-to-equity and leverage ratios within set targets. The main objectives of insurance management are to provide mitigation against catastrophe risks and to reduce earnings variation.

The Board of Directors has approved the risk management policy, which defines responsibilities, the process and other main principles of risk management. The Board of Directors oversees risk management on a regular basis and the Chief Financial Officer (CFO) is responsible for the implementation and development of financial risk management. The CFO leads relevant steering groups, such as the Risk Management Steering Group for enterprise risk management, the Financial Risk Steering Group for financial risk management and the Energy Risk Steering Group for energy risk management.

Financial risks consist of market, country, credit, liquidity and refinancing risks. Outokumpu subsidiaries hedge their currency and commodity price risk with Outokumpu Oyj, which does most of the Group's foreign exchange and commodity derivative contracts with banks and other financial institutions. The Treasury function ("Treasury") is responsible for managing foreign exchange, metal, interest rate, liquidity and refinancing as well as emission allowance price risk. Credit controlling has been mainly centralized to Global Business Services, and Treasury coordinates credit risk management. Customer credit risk is presented in note 4.5. The CFO office together with the relevant business areas are responsible for managing the electricity and fuel price risks.

Treasury sources all global insurances. The most important insurance lines are property damage and business interruption (PDBI), liability, marine cargo and credit risk. The captive insurance company Visenta Försäkringsaktiebolag is contributing global insurances by mainly participating in property damage and business interruption (PDBI) insurance line.

Exposure to financial risks is identified in connection with the Group's risk management process. This approach aims to ensure that any emerging risks are identified early and that significant risks are described, quantified, managed and communicated appropriately.

Risk information

Market risk

Outokumpu's main market risks are foreign exchange risk, interest rate risk, security price risk as well as commodity price risk, namely in metals, energy and emission allowances. The price changes in the before mentioned risks may have a significant impact on the Group's earnings (net result), cash flow and capital structure. Due to the cyclical stainless steel business, Outokumpu's exposure to market risks may change significantly from one period to another. Consequently, its derivatives' positions to mitigate its market risks change due to the cyclical business environment. Note 5.4 details the fair values and nominal amounts of derivative instruments while the sensitivity of financial instruments to market risks is described in the below table.

The strategy for market risk management is based on identifying, evaluating and mitigating relevant risks in committed business transactions and balance sheet items for each of the market risk categories. Forecasted items are included in the underlying risk position in interest rate, energy price and emission allowance price risk. The use of derivatives to mitigate market risks may cause timing differences between derivative gains or losses and the earnings impact of the underlying exposure. In order to reduce such timing differences in earnings, hedge accounting has been applied selectively as part of the metal and foreign exchange hedging activities. Most of the derivatives are short-term, however interest rate hedges typically have a maturity in excess of one year.

Foreign exchange rate risk

Outokumpu is exposed to foreign exchange risk as its business and operations are global. The risk arises from changes in exchange rates and may have effects on earnings, cash flow and balance sheet. The exposure consists mainly of raw material procurement, sales of stainless steel and ferrochrome production in foreign currencies. Also the location of Outokumpu's global operations expose the Group to foreign exchange rate risk. Outokumpu group companies are exposed to foreign exchange rate risk arising from net cash flows in other than the functional currency.

Sensitivity of financial instruments to market risks

	Dec 31, 2021		Dec 31, 2020	
€ million	In profit or loss	In other comprehensive income	In profit or loss	In other comprehensive income
+/–10% change in EUR/USD exchange rate	+7/–8	–	+3/–4	–
+/–10% change in EUR/SEK exchange rate	–6/+7	–	–2/+3	–
+/–10% change in nickel price in USD	–3/+3	–10/+10	+0/–0	+5/–5
+/–1% parallel shift in interest rates	–3/+4	–	–9/+10	–

The sensitivity analyses apply to financial assets and liabilities only. Other assets and liabilities, including defined benefit pension plan assets and liabilities, as well as off-balance sheet items such as sales and purchase orders, are not in the scope of these analyses. The calculations are net of tax. During the year the volatility for nickel price has been in the range of 24–31%. With +/–30% change in dollar denominated price, the effect in profit or loss is about EUR –8/+8 million and in other comprehensive income EUR –29/+29 million for nickel derivatives.

Foreign exchange positions of EUR-based companies

	Dec 31, 2021				Dec 31, 2020			
€ million	SEK	USD	GBP	Other	SEK	USD	GBP	Other
Trade receivables and payables	38	–458	14	18	–6	–257	11	7
Loans and bank accounts [1]	269	–167	52	13	440	50	0	6
Derivatives	–302	553	–106	–82	–438	179	–30	–27
Net position	**6**	**–72**	**–40**	**–51**	–4	–28	–19	–14

Foreign exchange positions of SEK-based companies

	Dec 31, 2021				Dec 31, 2020			
€ million	EUR	USD	GBP	Other	EUR	USD	GBP	Other
Trade receivables and payables	15	20	0	-4	67	–23	2	5
Loans and bank accounts [1]	13	7	1	7	9	9	1	1
Derivatives	–120	–47	–21	–12	–122	–1	–12	–12
Net position	**–92**	**–21**	**–20**	**–9**	–46	–15	–10	–5

[1] Includes cash and cash equivalents, loan receivables and debt.

Currency distribution and re-pricing of outstanding net debt

€ million	Dec 31, 2021				
Currency	Net debt [1]	Derivatives [2]	Average rate, % [1]	Duration, year [3]	Rate sensitivity [4]
EUR	582	–120	5.4	5.2	1.5
SEK	–23	262	–0.1	0.1	2.4
USD	–85	–191	0.0	0.0	–2.8
Others	–66	47	0.6	–0.3	–0.2
	408	**–2**			**1.0**

€ million	Dec 31, 2020				
Currency	Net debt [1]	Derivatives [2]	Average rate, % [1]	Duration, year [3]	Rate sensitivity [4]
EUR	1,204	–450	5.1	3.9	3.4
SEK	–26	436	0.0	0.1	4.1
USD	–94	18	0.0	–0.0	–0.8
Others	–56	3	0.3	–0.0	–0.5
	1,028	7			6.2

[1] Includes cash and cash equivalents and debt.

[2] Net derivative liabilities include nominal value of interest rate and currency forwards earmarked to net debt. Currency forwards are not included in average rate calculation.

[3] Duration calculation includes both net debt and derivatives.

[4] The effect of one percentage point increase in interest rates to financial expenses over the following year.

The foreign exchange exposure consists of risks associated with foreign currency cash flows (transaction risk), translation risk and economic risk, such as the change in competitiveness resulting from changes in foreign exchange rates. The transaction risk arises from committed and forecasted transactions and payments in currencies other than the functional currency of the entity and from changes in fair value of foreign currency denominated items recognized on the balance sheet. The fair value risk consists of foreign currency denominated accounts receivables, accounts payables, debt, cash, loan receivables and the currency position from commodity derivatives.

Foreign exchange transaction risk relates to firm commitments, e.g. price fixed sales and purchase orders. The fair value risks are hedged in principle in full in major currencies. However, continuing an exception to the hedging policy approved in 2019, the main operating entity in Sweden hedged its fixed price sales orders to a limited extent, and did not hedge its fixed price purchase orders. Forecasted and probable cash flows are not typically hedged but can be hedged selectively. Cash flow hedge accounting was selectively applied to committed sales orderbook hedges during 2021. The impact on the hedge accounting program to the Group's profit or loss was immaterial.

Outokumpu's largest foreign exchange transaction risk exposures are in US dollars, Swedish krona and British pound. A major part of the Group's sales is in euros and US dollars and thus the local currency denominated production costs in Sweden and the UK cause foreign exchange risk. The main US dollar cash flow risk origins from sales in the ferrochrome operations as chromium is priced in US dollars. Another significant US dollar cash flow risk is included in sales margins due to the dollar-linked stainless scrap purchase discounts. Internal Swedish krona denominated financing causes significant fair value foreign exchange rate risk, which is hedged with forward contracts and, if possible, with matching of external debt. The Group's fair value foreign exchange position is presented in a more detailed level in the table on the left side.

Translation risk consists of current net investment in foreign entities and future foreign currency denominated profits and losses which eventually will have an impact on Group's net earnings and balance sheet through consolidation. Outokumpu's net earnings and net investment translation risk is mainly in US dollars, Swedish kronas and British pounds. The equity translation risk is not typically hedged, although according to the financial risk policy this risk can be hedged selectively. In 2021, there were no hedges of net earnings or net investment exposures. However, the effective portion of gains (EUR 17 million, net of tax) on earlier financial years' net investment hedges is recognized in equity.

Interest rate risk

Changes in interest rates expose Outokumpu to interest rate risk with effects on Group's net interest expense (i.e. cash flow risk) and value of assets and liabilities (i.e. fair value risk) arising from changes in interest rates. The objective of the Group's interest rate risk management is to have a significant share of net debt effectively with a short-term interest rate as a reference rate. This approach is applied to mitigate the risk of adverse business conditions against net interest expenses as low interest rates are typically associated with such business conditions. Also this approach may help to reduce the average interest rate of debt. Approximately 39% (2020: 47%) of the Group's debt has an interest period of less than one year and the average interest rate of non-current debt on December 31, 2021 was 4.7% (Dec 31, 2020: 4.9%).

The interest rate risk exposure is composed of the Group's net debt including all interest-bearing assets and liabilities as well as derivatives that hedge these items. Interest rate derivatives, such as interest rate swaps, are used to adjust the share of net debt effectively repricing in different maturity buckets to limits defined in the Group's financial risk policy. This cash flow risk exposure excludes lease liabilities.

Euro, Swedish krona and US dollar have a substantial contribution to the Group's interest rate risk exposure. The interest rate risk exposure in Swedish krona and US dollar primarily originates from cash balances and foreign exchange derivatives. The interest rate position is presented in more detail in the table on the previous page.

Metal price risk

Commodity risk refers to the risk on Outokumpu earnings, cash flow and balance sheet arising from commodity prices, such as metals, energy and emission allowances.

The Group's most significant exposures in metals price risk arise from chromium and nickel, while other alloy metals with metal price risk include for example iron and molybdenum. Outokumpu is exposed to metal price risk for example through purchase of raw materials as well as sale of stainless steel end products where the price of alloy metals is based on market prices. The timing difference in such commercial purchase and sale transactions as well as inventory position expose the Group to metal price risk alongside the Group's capability to pass on price changes in raw materials to end-product prices. Market prices are based on prices determined in regulated markets, such as the London Metal Exchange (LME). Also, derivatives contracts to mitigate metal price risk are based on for example LME prices. Chromium does not have an established financial derivatives market and consequently is not included in the scope of the financial risk policy.

In addition to hedging with financial derivatives, the metal price risk is also mitigated through other measures such as pricing decisions. A significant part of the Group's stainless steel sales contracts include an alloy surcharge clause, with the aim of reducing the risk arising from the timing difference between alloy metal purchase and stainless steel pricing and delivery. The share of Group sales contracts including an alloy surcharge clause increased in 2021 compared to the previous year. Outokumpu's underlying metal position (in following alloy metals: nickel, iron and molybdenum) consists of price fixed purchase orders, inventories of alloy metal containing materials and price fixed sales orders. According to the financial risk policy, the nickel price risk, excluding the risk related to the base stock, must be hedged in full. Price risk positions in iron and molybdenum can be hedged selectively. Financial derivatives mainly in nickel are used to manage impacts of metal price changes on earnings, whereas efficient working capital management helps to reduce cash flow variations caused by metal price. Outokumpu has continued to apply cash flow hedge accounting programs on nickel hedging in order to reduce the timing differences between derivative gains or losses and the earnings impact of the underlying exposure. The hedge accounting covers a meaningful part of the Group's nickel derivatives hedges.

Energy and emission allowance price risk

Energy and consumables represent some 10–15% of Outokumpu's costs. In 2021, global electricity and gas prices increased mainly due to the economic recovery. In Central Europe, the main driver was the low level of gas inventories towards the winter period as gas is used also for electricity production. In Nordics, the hydro balance was on a lower level than in previous years supporting further development of electricity prices. Energy and fuel markets had an impact on higher emission allowance prices.

Outokumpu manages energy price risk centrally and mitigates the risks by following the Energy Procurement policy. Energy price risk is hedged with long-term agreements, fixed price supply contracts and partial ownerships in power utilities. The Energy Risk Steering Group monitors and manages the hedging level for each operating country. In 2021, Outokumpu signed a 10-year power supply agreement for renewable wind power. The size of the contract covers almost entirely the electricity consumption of Outokumpu's Kemi mine. According to the agreement, deliveries will begin in the summer of 2023.

Outokumpu is exposed to changes in emission allowance prices as the Group's main production sites in Europe are participating in the EU Emissions Trading Scheme (EU ETS) while the production site in the United Kingdom is participating in the UK Emissions Trading Scheme (UK ETS). The EU ETS and the UK ETS markets are separate and emission allowances are not transferable nor convertible. All Outokumpu sites met the compliance requirements on time regarding EU ETS Phase III. The Group's emission allowances positions are composed of realized and forecasted emissions netted against confirmed and forecasted emission allowances granted by the authorities. The prices of fuels and power as well as decisions on the EU and UK ETS have a significant impact on the price of emission allowances. The current trading phase of the EU ETS refers to the period 2021–2030. Outokumpu forecasts to have adequate amount of EU emission allowances until the end of this decade. However, e.g. future decisions on EU ETS including the Carbon Border Adjustment Mechanism (CBAM), may have a significant impact on this forecast.

Security price risk

Outokumpu has equity investments and fixed income securities. On December 31, 2021, the largest investments were in OSTP Holding Oy (investment in associated company of EUR 26 million) and Voimaosakeyhtiö SF. For more information on the investment in Voimaosakeyhtiö SF refer to note 5.6.

The captive insurance company Visenta Försäkringsaktiebolag has investments totaling EUR 28 million in highly rated and liquid fixed income securities as well as in fixed income and equity funds in order to optimize return for assets and to manage the risk prudently.

Country and counterparty credit risk

Treasury monitors credit risk related to financial institutions. Outokumpu seeks to reduce these risks by limiting the counterparties to banks and other financial institutions with good credit standing. For derivative transactions, Outokumpu prefers to have the ISDA framework agreements in place.

Exposure to country risk is monitored and mitigated by having a credit insurance that provides cover against political risk on external account receivables. Other country related exposures included for example Argentina due to Outokumpu's local and cross-border business activities there.

Insurances

The Group's business activities are capital intensive and key production processes are tightly integrated and therefore interdependent from one another. Property damage and business interruption insurance, covering e.g. fires, machinery breakdowns and natural catastrophes, is the Group's most important insurance line and significant portion of insurance premiums relate to this cover. Business operations may cause significant liability risks related e.g. to people, environment or Outokumpu's products. Outokumpu aims to mitigate the liability risk by relevant risk management measures and by having reasonable insurances in place. Other significant insurance lines include e.g. marine cargo and credit insurances.

There were no events leading to a significant insurance claims during the reporting period. The flooding of the river Volme in Germany caused damages to property and business interruption in Outokumpu's site in Dahlerbrück. However, the losses remained limited and the incident did not lead into a major claim event under the insurance program. In Kemi mine, Finland, the incident related to a broken lift guide rope was communicated to insurers and the corresponding claim process is ongoing with losses expected to remain limited.

Outokumpu's captive insurance company, Visenta Försäkringsaktiebolag (Visenta), is registered in Sweden and can operate as a direct insurer and reinsurer. Visenta has to comply with capital adequacy requirements set by the financial supervisory authority in Sweden and European Insurance and Occupational Pensions Authority (EIOPA). During the reporting period Visenta was profitable and well capitalized to meet externally imposed requirements, which are based on e.g. the Solvency II framework. There were no significant changes in the company's assets during the year. On December 31 the assets amounted to EUR 44 million.

Visenta continued its participation in Outokumpu's property and business interruption insurance and also continued to provide surety to cover certain potential environmental liabilities in connection with the operations in Kemi and Tornio. The business interruption and property damage incident in Dahlerbrück, Germany was reported to Visenta and it might lead into claim compensation. However, potential compensation is not estimated to be material.

Outokumpu continued its systematic fire safety and loss prevention surveys, focusing on execution of the mitigating actions. As a result of easing of travel restrictions, the audits were continued on site starting the end of third quarter and continued throughout fourth quarter with further audits scheduled for 2022. In addition, marine cargo risk audit program was re-launched with audits taking place in the fourth quarter and with further audits scheduled for first half of 2022.

5.4 Derivative instruments

€ million	2021 Positive fair value	2021 Negative fair value	2021 Net fair value	2020 Net fair value	2021 Nominal amounts	2020 Nominal amounts
Currency and interest rate derivatives						
Currency forwards	12	–11	**1**	–12	**2,510**	1,273
Interest rate swaps	–	–2	**–2**	6	**125**	325
					Tonnes	Tonnes
Metal derivatives						
Forward nickel contracts, hedge accounted	9	–17	**–8**	–4	**27,636**	26,417
Forward nickel contracts	10	–11	**–2**	1	**21,343**	19,132
Forward scrap contracts	0	0	**0**	–	**20,000**	–
Total derivatives	31	–42	**–11**	–8		
Less long-term derivatives						
Interest rate swaps	–	–2	**–2**	6		
Short-term derivatives	31	–40	**–9**	–15		

Contractual cash flows

2021 € million	2022	2023	2024	2025
Currency derivatives				
Outflows	2,511	–	–	–
Inflows	–2,510	–	–	–
Interest derivatives	0	0	0	0
	1	**0**	**0**	**0**

2020 € million	2021	2022	2023	2024
Currency derivatives				
Outflows	1,267	–	–	–
Inflows	–1,279	–	–	–
Interest derivatives	–2	–2	–2	–1
	–14	–2	–2	–1

Hedge accounted cash flow hedges (nickel derivatives)

	2021	2020
Fair value of nickel derivatives, € million	**–8**	–4
Nominal amount of nickel derivatives, tonnes	**27,636**	26,417
Hedge ratio	**1:1**	1:1
Fair value reserve in other comprehensive income, € million	**–7**	–4
Reclassified to sales in profit or loss, € million	**–27**	–2
Reclassified to cost of sales in profit or loss, € million	**29**	7
Recognized in inventory, € million	**–4**	–4

The nickel hedge accounting programs implemented for the business area Americas and the business area Europe cover a meaningful part of the Group's sales and purchase contracts. Forwards, which correspond to the pricing model of underlying, are used as derivative instrument. Only the spot component of nickel derivatives is under hedge accounting, forward element is recognized in profit or loss. The ineffectiveness is tested regularly. Management estimates that possible ineffectiveness can arise related to credit risk or timing of transactions, but these are estimated to be immaterial.

Master netting agreements and similar arrangements

€ million	2021	2020
Derivative assets		
Gross amounts of recognized financial assets in the statement of financial position	**31**	24
Related financial instruments that are not offset	**28**	15
	3	8
Derivative liabilities		
Gross amounts of recognized financial liabilities in the statement of financial position	**42**	32
Related financial instruments that are not offset	**28**	15
	14	17

Outokumpu enters into derivative transactions with most counterparties under ISDA agreements. In general, the amounts owed by each counterparty on a single day in respect of all transactions outstanding in the same currency are aggregated into a single net amount that is payable by one party to the other. In certain circumstances, e.g. when a credit event such as a default occurs, all outstanding transactions under the agreement are terminated. The termination value is assessed and only a single amount is payable in settlement of all transactions. ISDA agreements do not meet the criteria for offsetting the balances in the statement of financial position, but the right to offset is enforceable only on the occurrence of future credit events. The following table sets out the carrying amounts of recognized financial instruments that are subject to the agreements described above.

Accounting principles

Derivatives are initially recognized at fair value on the trade date, when the Group enters into a derivative contract, and are subsequently measured at fair value.

The presentation of the gains or losses arising from the fair value measurement depends on the purpose of the derivative. The gains or losses arising from fair value changes of effective hedge-accounted derivative contracts are presented in profit or loss congruent with the hedged item. Changes in fair value of derivative contracts, where hedge accounting is not applied, are recognized in EBIT in other operating income and expenses. Changes in fair value of derivatives designated for financing activities are presented within financial income and expenses.

The fair value measurement is based on quoted market prices and rates as well as on discounted cash flows at the end of the reporting period. Fair values of derivatives can in certain cases be based on valuations of external counterparties.

Hedge accounting

Outokumpu applies cash flow hedge accounting on certain nickel derivatives. For each hedging arrangement the relationship between the hedging instrument and the hedged item, the objectives of risk management and the strategy of the hedging arrangement are documented.

The effectiveness of the hedge relationship is documented and assessed when hedging is started and at least in the end of each reporting period. Hedge effectiveness is calculated and assessed between the changes in the fair value or cash flows of the hedged item attributable to the hedged risk and the changes in the fair value or cash flows of the hedging instrument to ensure that these impacts offset one another. Hedge accounting is discontinued if the requirements of hedge accounting are no longer met.

Fair value changes of derivatives designated to hedge forecasted cash flows are recognized in other comprehensive income and presented within the fair value reserve in equity to the extent that the hedge is effective. Such fair value changes accumulated in equity are reclassified in profit or loss, and presented in sales or cost of sales in the period when the hedge accounted cash flows affect the profit or loss. In the certain hedge accounted transaction, the realized gains or losses of the nickel derivatives are first reclassified from fair value reserves in equity to the inventory for a certain period and finally recognized in profit or loss. The fair value changes related to the ineffective portion of the hedging instrument are recognized immediately in profit or loss.

5.5 Financial assets and liabilities

Carrying values and fair values of financial assets and liabilities by measurement category

2021 € million	Measured at Amortized cost	Fair value through other comprehensive income	Fair value through profit or loss	Carrying amount	Fair value	Fair value hierarchy level
Non-current financial assets						
Equity investments	–	24	–	24	24	3
Trade and other receivables	4	–	–	4		
Current financial assets						
Other investments	–	–	28	28	28	1
Trade and other receivables	597	–	–	597		
Hedge accounted derivatives	–	–	9	9	9	2
Derivatives held for trading	–	–	22	22	22	2
Cash and cash equivalents	300	–	–	300		
	902	24	60	985		
Non-current financial liabilities						
Non-current debt	597	–	–	597	730	2
Derivatives held for trading	–	–	2	2	2	2
Current financial liabilities						
Current debt	112	–	–	112	112	2
Trade and other payables	1,811	–	–	1,811		
Hedge accounted derivatives	–	–	17	17	17	2
Derivatives held for trading	–	–	23	23	23	2
	2,520	–	42	2,562		

There were no transfers between levels 1, 2 and 3 during the years. A major part of equity investments at fair value through other comprehensive income at hierarchy level 3 relates to investments in unlisted energy producing companies. The movement in the carrying amounts of these investments presented in note 5.6 represents also the reconciliation of level 3 changes.

2020 € million	Measured at Amortized cost	Fair value through other comprehensive income	Fair value through profit or loss	Carrying amount	Fair value	Fair value hierarchy level
Non-current financial assets						
Equity investments	–	48	–	48	48	3
Trade and other receivables	1	–	–	1		
Derivatives held for trading	–	–	6	6	6	2
Current financial assets						
Other investments	–	–	26	26	26	1
Trade and other receivables	385	–	–	385		
Hedge accounted derivatives	–	–	8	8	8	2
Derivatives held for trading	–	–	10	10	10	2
Cash and cash equivalents	376	–	–	376		
	762	48	50	860		
Non-current financial liabilities						
Non-current debt	1,153	–	–	1,153	1,208	2
Current financial liabilities						
Current debt	251	–	–	251	251	2
Trade and other payables	1,246	–	–	1,246		
Hedge accounted derivatives	–	–	11	11	11	2
Derivatives held for trading	–	–	21	21	21	2
	2,650	–	32	2,682		

Accounting principles

The Group's financial assets and liabilities are classified as items at fair value through profit or loss, items at fair value through other comprehensive income and items at amortized cost. The classification is based on Group's business model for financial assets and liabilities, and their contractual cash flow characteristics.

If a financial asset is not measured at fair value through profit or loss, significant transaction costs are included in the initial carrying amount of the asset. Financial assets are derecognized when the Group loses the rights to receive the contractual cash flows on the financial asset or it transfers substantially all the risks and rewards of ownership outside the Group. Accounting principles related to transaction costs and de-recognition of borrowings are presented in note 5.1.

Financial assets and liabilities measured at amortized cost

Financial assets measured at amortized cost include trade and other receivables and cash and cash equivalents. These assets are measured initially at fair value. After initial recognition, they are measured at amortized cost by using the effective interest rate method less accumulated impairments. The accounting principles related to factored receivables and expected credit losses are presented in note 4.5.

Financial liabilities measured at amortized cost include the borrowing and trade and other payables. See note 5.1 for further accounting and fair valuation principles for borrowings and note 4.5 for accounting principles for trade and other payables.

Financial assets at fair value through other comprehensive income

Financial assets at fair value through other comprehensive income include equity investments in listed and unlisted companies. Accounting principles are presented in note 5.6.

Financial assets and liabilities at fair value through profit or loss

Financial assets and liabilities at fair value through profit or loss include derivative instruments. Financial assets at fair value through profit or loss include also investments in debt instrument or money market funds held for trading purposes and intended to be sold within a short period of time. In some cases, also equity investments can be classified in this category.

These financial assets and liabilities are recognized at the trade date at fair value and subsequently remeasured at fair value at the end of each reporting period. The fair value measurement is based on quoted rates and market prices as well as on appropriate valuation methodologies and models.

Realized and unrealized gains and losses arising from changes in fair values of non-derivative financial assets are recognized in market price gains and losses under financial income and expenses in the reporting period in which they are incurred. Accounting principles related to derivatives are described in more detail in note 5.4.

Measurement of fair values

Number of accounting policies and disclosures require the measurement of fair values. Financial assets and liabilities measured at fair value are classified to fair value hierarchy levels based on the source information and inputs used in the fair valuation. In level one, fair values are based on public quotations for identical instruments. In level two, fair values are based on market rates and prices and discounted future cash flows. For assets and liabilities in level three, there is no reliable market source available and thus the fair value measurement is not based on observable market data. Therefore, the measurement methods are chosen taking into account the information available for the measurement and the characteristics of the measured item.

5.6 Equity investments at fair value through other comprehensive income

€ million	2021	2020
Carrying value on Jan 1	**48**	31
Additions	**19**	13
Fair value changes	**–44**	4
Carrying value on Dec 31	**24**	48

Fair value reserve in equity

€ million	2021	2020
Fair value on Dec 31	**24**	48
Fair value at acquisition	**113**	93
Fair value reserve	**–89**	–45

Equity investments at fair value through other comprehensive income include unlisted strategic holdings mainly in energy companies in which Outokumpu does not have control, joint control or significant influence.

These energy companies produce energy to their shareholders on a cost-price basis (Mankala principle) which is a widely used business model among the Finnish energy companies. Under the Mankala principle, shareholders are entitled to receive energy in proportion to the ownership, and each shareholder is severally responsible for its respective share of the costs of the energy company as set out in the articles of association.

Fennovoima

Investments include a holding in Voimaosakeyhtiö SF at fair value of EUR 0 million on December 31, 2021 (Dec 31, 2020: EUR 27 million). The investment provides Outokumpu with approximately 14% indirect stake in the Fennovoima Oy nuclear power plant project. Outokumpu has representation both in Voimaosakeyhtiö SF (two Board members) and in Fennovoima (one advisory Board member as a Chairman of the Finance Committee). The holding gives Outokumpu access to estimated 170 MW power capacity when the project is completed. During year 2021, Outokumpu invested EUR 19 million to Voimaosakeyhtiö SF, and by the end of 2021, Outokumpu had invested in total EUR 112 million (Dec 31, 2020: EUR 92 million) in the shares of Voimaosakeyhtiö SF.

The decrease in fair value in 2021 is mainly driven by estimated increase in the Fennovoima project risk.

Management judgements

Valuation model of energy companies is based on discounted cash flow model. The main parameters are the market and forecasted long-term electricity prices, discount rate, inflation rate, the estimated amount of electricity to be received and estimated production costs.

Additional parameters for Voimaosakeyhtiö SF valuation include e.g. the expected purchase price of electricity under the Mankala principle, cost of debt in Fennovoima Oy, expected project completion date and the overall project risk. The fair value of Voimaosakeyhtiö SF shares is highly sensitive to the valuation parameters and especially to long-term price of electricity, Fennovoima's capacity utilization rate, discount rates for cash flows and the terminal value, inflation rate, project completion date and the overall project risk.

Long-term prices for electricity have been estimated by the management, and are assumed to be at a higher level compared to medium-term historical averages. The long time period to complete the Fennovoima project and to operate the plant affect the reliability of such estimate, and reasonable changes in the electricity price estimate or in other valuation parameters can significantly impact the fair value of the investment. The overall project risk is considered by including a separate project risk factor in the cash flow discount rate. In general, the project risk is considered high with the estimated completion earliest in 2029, and the range of potential fair values is wide.

Accounting principles

Equity investments at fair value through other comprehensive income consists of investments which are not held for trading, and which the Group has irrevocably elected at initial recognition to recognize in this category. These are mainly strategic investments, so this classification is considered relevant.

The investments and divestments are recognized at the trade date. They are included in non-current assets unless there is intention to dispose of the investment within 12 months from the reporting date.

The investments are measured at fair value, and fair value changes are recognized through other comprehensive income and presented net of tax in fair value reserve in equity. The valuation is based on quoted rates and market prices at the end of the reporting period, as well as on appropriate valuation techniques, such as cash flow discounting. Observable market data is used in the valuation when available but also on entity-specific management estimates are applied.

Dividends are recognized in profit or loss. When equity investment is disposed, the accumulated fair value changes are reclassified from fair value reserve to retained earnings.

5.7 Commitments and contingent liabilities

€ million	2021	2020
Mortgages and pledges on Dec 31		
Mortgages	**3,208**	3,203
Other pledges	**13**	13
Guarantees on Dec 31		
On behalf of subsidiaries for commercial and other commitments	**27**	29
On behalf of associated companies for financing	**–**	2
Other commitments for financing on Dec 31	**9**	10

Mortgages relate mainly to securing the Group's financing. A major part of Outokumpu's borrowings are secured by mortgage over the real property of the Group's main production plants. Mortgages include also the business mortgage note to secure a loan for the Kemi mine expansion project.

Outokumpu is liable for its associated company Manga LNG Oy's certain liabilities amounting to EUR 21 million at the end of 2021 (2020: EUR 24 million). In the above table, this liability is reported as other pledges (Outokumpu's shares in Manga LNG Oy), as guarantees on behalf of associated companies, and the part exceeding the share pledge and guarantee as other commitments for financing.

Outokumpu Oyj is, in relation to its shareholding in Etelä-Pohjanmaan Voima Oy, liable for the costs, commitments and liabilities relating to electricity provided by Tornion Voima Oy. These liabilities are reported under other commitments for financing.

Outokumpu has a long-term energy supply contract that includes a minimum purchase quantity. There is uncertainty whether the company will be able to utilize this minimum purchase quantity in full by the end of 2029 or whether there will be additional cost to the company from this contract.

Investment commitments

Outokumpu's share of the Fennovoima investment is about EUR 250 million of which EUR 112 million has been paid by the end of the reporting period. The remaining commitment is expected to be paid during the preparation and construction phases of the project before the estimated completion earliest in 2029 with capital expenditure expected to be some EUR 20 million annually in the coming years.

The Group's other off-balance sheet investment commitments totaled EUR 32 million on December 31, 2021 (Dec 31, 2020: EUR 51 million).

Accounting principles

Unrecognized commitments are disclosed when the Group has an obligation or a pledge to assume a financial liability at a future date.

A contingent liability is a possible obligation that arises from past events and the existence of which will be confirmed by uncertain future events that are not wholly within the control of the entity. Obligations that are not considered probable or where the amounts cannot be reliably measured are also considered as contingent liabilities. Contingent liabilities are not recognized in the statement of financial position but disclosed as off-balance sheet commitments.

6. Other notes

This notes section covers the notes related to the Group structure, as well as other notes that do not directly fall under any of the previous notes sections.

6.1 Disputes and litigations

Claim in Spain related to the divested copper companies

Outokumpu divested all of its copper business in 2003–2008. One of the divested companies, domiciled in Spain, later faced bankruptcy. The administrator of the bankruptcy estate filed a claim against Outokumpu Oyj and two other non-Outokumpu companies for recovery of payments made by the bankrupt company in connection with the divestment. In 2014, the court of first instance in Spain accepted the claim of EUR 20 million brought against Outokumpu and the two other companies. In 2018, the Court of Appeal ruled the case in favor of Outokumpu. Finally, in March 2021, the Spanish Supreme Court ruled the case in favor of Outokumpu and released the company from all claims and liabilities. All legal cases against Outokumpu related to the recovery have now been closed.

Dispute over payment of wages in the US

A class of plaintiffs, consisting of 152 former and 126 current Outokumpu Calvert mill employees, has brough suit against Outokumpu in U.S. federal court with allegations of failure to pay full wages for regular work and overtime work they performed. In November 2021, the court entered a default judgment against Outokumpu with respect to liability as a sanction for alleged misconduct during the discovery phase of the legal proceeding. The process to finally determine the damages is pending in the court. Outokumpu does not consider the potential financial impact of the case material for the Group as a whole.

6.2 Related parties

Outokumpu's related parties include the key management of the company and their close family members, subsidiaries, associated companies and Solidium Oy. Key management includes Leadership Team members and members of the Board of Directors, and their remuneration is presented in note 3.2. The principal subsidiaries and associated companies are listed later in this notes section.

Solidium Oy, a limited company fully owned by the State of Finland, owned 15.5% of Outokumpu on December 31, 2021. Solidium's mission is to strengthen and stabilize Finnish ownership in nationally important companies and increase the value of its holdings in the long run.

Transactions with related partied are carried out at arms-length principles.

Transactions and balances with related companies

€ million	2021	2020
Sales and other operating income	**97**	69
Purchases	**–51**	–37
Dividend income	**7**	–
Trade and other receivables	**36**	21
Trade and other payables	**4**	3

6.3 Subsidiaries

December 31, 2021		Country	Group holding, %
Europe			
Outokumpu AS		Norway	100
Outokumpu B.V.		The Netherlands	100
Outokumpu Distribution France S.A.S.		France	100
Outokumpu Distribution Hungary Kft.		Hungary	100
Outokumpu Distribution Polska Sp. z o.o.		Poland	100
Outokumpu Europe Oy	*)	Finland	100
Outokumpu Ges.m.b.H.		Austria	100
Outokumpu India Private Limited		India	100
Outokumpu Management (Shanghai) Co., Ltd	*)	China	100
Outokumpu Middle East FZCO		United Arab Emirates	100
Outokumpu Nirosta GmbH		Germany	100
Outokumpu N.V.		Belgium	100
Outokumpu Prefab AB		Sweden	100
Outokumpu Press Plate AB		Sweden	100
Outokumpu PSC Benelux B.V.		The Netherlands	100
Outokumpu PSC Finland Oy		Finland	100
Outokumpu (Pty) Ltd		South Africa	100
Outokumpu S.A.		Spain	100
Outokumpu (S.E.A.) Pte. Ltd		Singapore	100
Outokumpu Shipping Oy		Finland	100
Outokumpu S.r.l.		Italy	100
Outokumpu Stainless AB		Sweden	100
Outokumpu Stainless B.V.		The Netherlands	100
Outokumpu Stainless Oy		Finland	100
Outokumpu Stainless Pty. Ltd		Australia	100
Outokumpu Stainless Steel (China) Co., Ltd		China	100
Outokumpu Tornio Infrastructure Oy		Finland	100

December 31, 2021		Country	Group holding, %
Americas			
Outokumpu Brasil Comércio de Metais Ltda		Brazil	100
Outokumpu Fortinox S.A.		Argentina	100
Outokumpu Mexinox Distribution S.A. de C.V.		Mexico	100
Outokumpu Mexinox S.A. de C.V.		Mexico	100
Outokumpu Stainless USA, LLC		The US	100
ThyssenKrupp Mexinox CreateIT, S.A. de C.V.		Mexico	100
Ferrochrome			
Outokumpu Chrome Oy	*)	Finland	100
Long Products			
Fagersta Stainless AB		Sweden	100
Outokumpu Stainless Bar, LLC		The US	100
Outokumpu Stainless Ltd		The UK	100
Other operations			
Outokumpu Americas, Inc.		The US	100
Outokumpu Distribution Benelux B.V.		The Netherlands	100
Outokumpu Holding Germany GmbH	*)	Germany	100
Outokumpu Holding Nederland B.V.	*)	The Netherlands	100
Outokumpu Mining Oy		Finland	100
Outokumpu Stainless Holding GmbH		Germany	100
Outokumpu Stainless UAB		Lithuania	100
Québec Inc.		Canada	100
Viscaria AB	*)	Sweden	100
Visenta Försäkrings AB		Sweden	100

In addition, Outokumpu has branch offices in South Korea, Taiwan, Thailand, The UK and Vietnam.

This list does not include all holding companies or all dormant companies.

*) Shares and stock held by the parent company

6.4 Associated companies

	Industry	Domicile	Ownership, %
Manga LNG Oy	Energy	Finland	45
OSTP Holding Oy	Metals processing	Finland	49
Rapid Power Oy	Energy	Finland	33

Summarized financial information on associated companies

€ million	2021	2020
Carrying value of investments in associated companies	**43**	38
Group's share of total comprehensive income	**15**	2

Based on the impact on the Group's consolidated financial statements, the investments in associated companies are considered immaterial.

Accounting principles

Companies where Outokumpu generally holds voting rights of 20–50% or in which Outokumpu otherwise has significant influence, but not control, are included in the consolidated financial statements as associated companies, and they are accounted for using the equity method from the date significant influence was obtained until it ceases.

The Group's share of the associated company's net result for the period is separately disclosed below EBIT in the consolidated statement of income. Outokumpu's share of changes recognized in the associated company's other comprehensive income is recognized in the Group's other comprehensive income.

If Outokumpu's share of the associated company's losses exceeds the carrying amount of the investment, the investment is recognized at zero value in the statement of financial position and recognition of further losses is discontinued, except to the extent that the Group has incurred obligations in respect of the associated company. The interest in an associated company comprises the carrying amount of the investment under the equity method together with any long-term interest that, in substance, forms a part of the net investment in the associated company.

6.5 New IFRS standards

Adoption of new and amended IFRS standards

Outokumpu has not yet applied the following new and amended standards and interpretations, but adopts them as of the effective date or, if the date is other than the first day of the financial year, from the beginning of the subsequent financial year. These new and amended standards or other not yet effective amendments and interpretations are not expected to have a material impact on Outokumpu's consolidated financial statements.

- **IFRS 17 Insurance contracts** (effective for financial years beginning on or after January 1, 2023): The standard requires a current measurement model for insurance liability with re-measured estimates at each reporting date. The standard can impact the financial reporting of Outokumpu's captive insurance company Visenta Försäkrings AB. However, the company is not material to Outokumpu as a whole, and the impacts are not expected to be material for the Group.
- **Amendments to IAS 1 Presentation of financial statements – Classification of Liabilities as Current or Non-current*** (effective for financial years beginning on or after January 1, 2023): The amendments clarify that liabilities are classified as either current or non-current, depending on the rights that exist at the end of the reporting period, and that classification is unaffected by the expectations of the entity or events after the reporting date. The amendments also clarify what IAS 1 means when it refers to the settlement of a liability.
- **Amendments to IAS 1 Presentation of financial statements, IFRS Practice Statement 2 and IAS 8 Accounting Policies, Changes in Accounting Estimates and Errors – Disclosure of Accounting Policies and Definition of Accounting Estimates*** (effective for financial years beginning on or after January 1, 2023): The amendments distinguish changes in accounting estimates from changes in accounting policies and aim to improve accounting policy disclosures.
- **Amendments to IAS 12 Income taxes – Deferred Tax related to Assets and Liabilities arising from single transaction*** (effective for financial years beginning on or after January 1, 2023): The amendment clarifies the application of the recognition exemption of deferred taxes on a single transaction.
- **Amendments to IAS 16 Property, Plant and Equipment – Proceeds before intended use** (effective for financial years beginning on or after January 1, 2022): The amendment prohibits the deduction of any proceeds from selling produced items from the cost of a property, plant and equipment item while preparing the asset for its intended use. It also clarifies that testing the functioning of an asset refers to technical and physical performance of the asset, not financial performance.
- **Amendments to IAS 37 Provisions, Contingent Liabilities and Contingent Assets – Onerous Contracts** (effective for financial years beginning on or after January 1, 2022): The amendment clarifies that the direct costs of fulfilling a contract include both the incremental costs of fulfilling the contract and an allocation of other costs directly related to fulfilling contracts. Before recognizing a separate provision for an onerous contract, the entity recognizes any impairment loss occurred on assets used in fulfilling the contract.

*Not yet endorsed by the EU.

Parent company financial statements

Income statement of the parent company

€ million	2021	2020
Sales	**783**	664
Cost of sales	**–716**	–565
Gross margin	**67**	99
Other operating income	**27**	0
Selling and marketing expenses	**–2**	–10
Administrative expenses	**–103**	–110
Other operating expenses	**–13**	–8
EBIT	**–24**	–29
Financial income and expenses	**–100**	–58
Result before appropriations and taxes	**–124**	–87
Appropriations		
Group contribution	**164**	111
Income taxes	**0**	–
Result for the financial year	**40**	24

According to the Finnish accounting standards (FAS), the parent company financial statements are presented in addition to the Group financial statements. The parent company's financial statements have been prepared in accordance with Finnish accounting standards. The parent company Outokumpu Oyj's income statement and balance sheet items are mainly internal and are eliminated on the group level except for the external financing and treasury items which are mainly centralized to the parent company.

Balance sheet of the parent company

€ million	2021	2020
ASSETS		
Non-current assets		
Intangible assets	**103**	130
Property, plant and equipment	**2**	2
Financial assets		
Shares in Group companies	**3,685**	3,713
Loan receivables from Group companies	**658**	771
Shares in associated companies	**13**	15
Other shares and holdings	**1**	60
Other financial assets	**3**	6
	4,360	4,565
Total non-current assets	**4,465**	4,698
Current assets		
Current receivables		
Loans receivable	**294**	221
Trade receivables	**94**	67
Prepaid expenses and accrued income	**22**	23
Other receivables	**242**	160
	652	470
Cash and cash equivalents	**257**	332
Total current assets	**909**	801
TOTAL ASSETS	**5,374**	5,500

€ million	2021	2020
EQUITY AND LIABILITIES		
Shareholders' equity		
Share capital	**311**	311
Premium fund	**720**	720
Invested unrestricted equity reserve	**2,332**	2,123
Retained earnings	**188**	164
Result for the financial year	**40**	24
	3,592	3,343
Untaxed reserves		
Accumulated depreciation difference	**1**	1
Liabilities		
Non-current liabilities		
Bonds	–	250
Convertible bonds	**125**	125
Loans from financial institutions	**50**	330
Pension loans	**154**	143
Other non-current loans	**2**	1
	330	849
Current liabilities		
Group bank account liabilities	**898**	787
Other current loans	**212**	263
Pension loans	**13**	–
Trade payables	**236**	177
Accrued expenses and prepaid income	**16**	15
Other current liabilities	**76**	65
	1,451	1,307
Total liabilities	**1,781**	2,156
TOTAL EQUITY AND LIABILITIES	**5,374**	5,500

Cash flow statement of the parent company

€ million	2021	2020
Cash flow from operating activities		
Result for the financial year	**40**	24
Adjustments for		
Depreciation and amortization	**14**	12
Impairments	**91**	33
Gain/loss on sale of intangible assets, and property, plant and equipment	**–18**	0
Interest income	**–37**	–38
Dividend income	**–2**	–
Interest expense	**34**	46
Change in provisions	**–1**	1
Exchange gains and losses	**6**	2
Group contributions	**–164**	–111
Other non-cash adjustments	**–8**	8
	–84	–47
Change in working capital		
Change in trade and other receivables	**–30**	0
Change in trade and other payables	**66**	–27
	36	–27
Dividends received	**2**	–
Interest received	**37**	39
Interest paid	**–37**	–45
	2	–6
Net cash from operating activities	**–6**	–55

€ million	2021	2020
Cash flow from investing activities		
Investments in subsidiaries and other shares and holdings	**–19**	–13
Purchases of intangible assets	**–14**	–19
Proceeds from disposal of subsidiaries	**28**	108
Proceeds from disposal of other shares and holdings	**2**	–
Proceeds from sale of intangible assets	**30**	2
Change in other long-term receivables	**105**	21
Net cash from investing activities	**132**	99
Cash flow before financing activities	**126**	44
Cash flow from financing activities		
Directed share issue	**209**	–
Borrowings of non-current debt	**24**	444
Repayments of non-current debt	**–530**	–664
Change in current debt	**50**	85
Cash flow from group contribution	**111**	53
Other financing cash flow	**–64**	97
Net cash from financing activities	**–201**	16
Net change in cash and cash equivalents	**–75**	60
Net change in cash and cash equivalents in the balance sheet	**–75**	60

Statement of changes in equity of the parent company

€ million	Share capital	Premium fund	Invested unrestricted equity reserve	Retained earnings	Total equity
Equity on Jan 1, 2020	311	720	2,123	164	3,319
Result for the financial year	–	–	–	24	24
Equity on Dec 31, 2020	311	720	2,123	188	3,343
Result for the financial year	–	–	–	40	40
Directed share issue	–	–	209	–	209
Equity on Dec 31, 2021	**311**	**720**	**2,332**	**228**	**3,592**

Distributable funds on Dec 31

€ million	2021	2020
Retained earnings	**188**	164
Result for the financial year	**40**	24
Invested unrestricted equity reserve	**2,332**	2,123
Distributable funds on Dec 31	**2,560**	2,312

Commitments and contingent liabilities of the parent company

€ million	2021	2020
Other pledges on Dec 31	**13**	13
Guarantees on Dec 31		
On behalf of subsidiaries		
For financing	**427**	327
For other commitments	**27**	28
On behalf of associated companies		
For financing	–	2
Other commitments for financing on Dec 31	**9**	10

A major part of Outokumpu's borrowings are secured by mortgage over the real property of Group's main production plants.

Outokumpu is liable for its associated company Manga LNG Oy's certain liabilities amounting to EUR 21 million at the end of 2021 (2020: EUR 24 million). In the table, this liability is reported as other pledges (Outokumpu's shares in Manga LNG Oy), as guarantees on behalf of associated companies, and the part exceeding the share pledge and guarantee as other commitments for financing.

Outokumpu Oyj is, in relation to its shareholding in Etelä-Pohjanmaan Voima Oy, liable for the costs, commitments and liabillites relating electricity provided by Tornion Voima Oy. These liabilities are reported as other commitments for financing.

Outokumpu's share of the Fennovoima investment is about EUR 250 million of which EUR 112 million has been paid by the end of the reporting period. The remaining commitment is expected to be paid during the preparation and construction phases of the project before the estimated completion earliest in 2029 with capital expenditure expected to be some EUR 20 million annually in the coming years.

In 2021, Outokumpu Oyj recognized an impairment of EUR 79 million (2020: EUR 33 million) to its shareholding in Voimaosakeyhtiö SF providing ownership to Fennovoima Oy. In the income statement, the impairment is recognized in financial income and expenses. The impairment did not impact Outokumpu Group's consolidated statement of income under IFRS as the shareholding is valued at fair value and the changes in fair value are booked to equity through other comprehensive income.

Auditor's Report (Translation of the Finnish Original)

To the Annual General Meeting of Outokumpu Oyj

Report on the Audit of the Financial Statements

Opinion

In our opinion

- the consolidated financial statements give a true and fair view of the group's financial position and financial performance and cash flows in accordance with International Financial Reporting Standards (IFRS) as adopted by the EU
- the financial statements give a true and fair view of the parent company's financial performance and financial position in accordance with the laws and regulations governing the preparation of the financial statements in Finland and comply with statutory requirements.

Our opinion is consistent with the additional report to the Audit Committee.

What we have audited

We have audited the financial statements of Outokumpu Oyj (business identity code 0215254-2) for the year ended 31 December 2021. The financial statements comprise:

- the consolidated statement of income, consolidated statement of comprehensive income, consolidated statement of financial position, consolidated statement of cash flows, consolidated statement of changes in equity and notes to the consolidated financial statements, including accounting principles for the consolidated financial statements
- the parent company's income statement, balance sheet, cash flow statement and notes to the parent company financial statements.

Basis for Opinion

We conducted our audit in accordance with good auditing practice in Finland. Our responsibilities under good auditing practice are further described in the Auditor's Responsibilities for the Audit of the Financial Statements section of our report.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

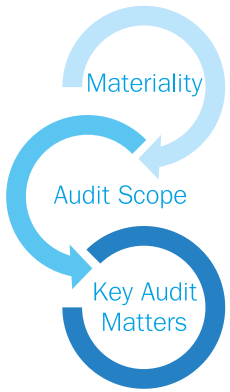
Independence

We are independent of the parent company and of the group companies in accordance with the ethical requirements that are applicable in Finland and are relevant to our audit, and we have fulfilled our other ethical responsibilities in accordance with these requirements.

To the best of our knowledge and belief, the non-audit services that we have provided to the parent company and to the group companies are in accordance with the applicable law and regulations in Finland and we have not provided non-audit services that are prohibited under Article 5(1) of Regulation (EU) No 537/2014. The non-audit services that we have provided are disclosed in note 2.3 to the Financial Statements.

Our Audit Approach

Overview



- Overall group materiality: € 35 million (2020: € 35 million)

- The audit scope includes all significant companies, covering the vast majority of sales, assets and liabilities.

- Valuation of goodwill
- Valuation of Property, Plant and Equipment
- Valuation of inventories
- System environment and internal controls
- Valuation of subsidiary shares in the parent company's financial statements

As part of designing our audit, we determined materiality and assessed the risks of material misstatement in the financial statements. In particular, we considered where management made subjective judgements; for example, in respect of significant accounting estimates that involved making assumptions and considering future events that are inherently uncertain.

Materiality

The scope of our audit was influenced by our application of materiality. An audit is designed to obtain reasonable assurance whether the financial statements are free from material misstatement. Misstatements may arise due to fraud or error. They are considered material if individually or in aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of the financial statements.

Based on our professional judgement, we determined certain quantitative thresholds for materiality, including the overall group materiality for the consolidated financial statements as set out in the table on the next page. These, together with qualitative considerations, helped us to determine the scope of our audit and the nature, timing and extent of our audit procedures and to evaluate the effect of misstatements on the financial statements as a whole.

Overall group materiality	€ 35 million (2020: € 35 million)
How we determined it	0.5% of sales 2021
Rationale for the materiality benchmark applied	We chose sales as the benchmark because, in our view, it is a stable and an important benchmark in the group's current situation, against which the performance of the group is measured by users of the financial statements. As the group's profitability has not been stable, sales is also a generally accepted benchmark. We chose 0.5% which is within the range of acceptable quantitative materiality thresholds in auditing standards.

How we tailored our group audit scope

We tailored the scope of our audit, taking into account the structure of the Outokumpu group, the accounting processes and controls, and the industry in which the group operates. The group audit scope was focused on the manufacturing companies in Finland, Sweden, Germany, USA, Mexico, the UK and Italy. We obtained, through our audit procedures at the aforementioned companies, combined with additional procedures at the group level, sufficient and appropriate evidence regarding the financial information of the group as a whole to provide a basis for our opinion on the consolidated financial statements.

Key Audit Matters

Key audit matters are those matters that, in our professional judgment, were of most significance in our audit of the financial statements of the current period. These matters were addressed in the context of our audit of the financial statements as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on these matters.

As in all of our audits, we also addressed the risk of management override of internal controls, including among other matters consideration of whether there was evidence of bias that represented a risk of material misstatement due to fraud.

Key audit matter in the audit of the group	How our audit addressed the key audit matter
Valuation of goodwill Refer to notes 4.1 and 4.3 in the consolidated financial statements. As at 31 December 2021 the group's goodwill balance amounted to € 465 million. Goodwill is tested at least annually, irrespective of whether there is any indication of impairment. In goodwill impairment testing, the recoverable amounts are based on value in use determined by discounted future net cash flows expected to be generated by the cash-generating unit. Key assumptions of the value-in-use calculations include the discount rate, the terminal value growth rate, the average global growth in end-use consumption of stainless steel and base price development. Valuation of goodwill is a key audit matter due to the size of the goodwill balance and the high level of management judgement involved in the estimation process.	Our audit of goodwill valuation focused on management's judgement and estimates used. We assessed the appropriateness of these through the following procedures: • We tested the methodology applied in the value in use calculation by comparing it to the requirements of IAS 36, Impairment of Assets, and we tested the mathematical accuracy of the calculations. • We evaluated the process by which the future cash flow forecasts were drawn up, including comparing them to medium term strategic plans and forecasts approved by the Board and testing the key underlying assumptions. • We considered whether the sensitivity analysis performed by management around key drivers of the cash flow forecast was appropriate by considering the likelihood of the movements of these key assumptions. • We compared the current year actual results to those included as estimates in the prior year impairment model to corroborate the reliability of management's estimates. • The discount rates applied within the model were assessed by PwC business valuation specialists, including comparison to economic and industry forecasts as appropriate. We also considered the appropriateness of the related disclosures provided in notes 4.1 and 4.3 in the group financial statements.

Key audit matter in the audit of the group	How our audit addressed the key audit matter
Valuation of Property, Plant and Equipment Refer to note 4.1 in the consolidated financial statements. As at 31 December 2021 the group's Property, Plant and Equipment (PPE) amounted to € 2,573 million, which is 40% of the total assets and 82% of the total equity. The group's business is very capital intensive and there is a risk that the carrying value of the Property, Plant and Equipment is overstated. The carrying value of Property, Plant and Equipment is tested as part of the group impairment testing based on the discounted cash flow model. Valuation of Property, Plant and Equipment is a key audit matter due to the size of the balance and the high level of management judgement involved in the estimation process.	We assessed the appropriateness of the group's method and management's judgement and estimates in the impairment calculations for Property, Plant and Equipment. Our audit work also included testing the operating effectiveness of controls in place to ensure the existence and appropriate valuation of Property, Plant and Equipment. Such controls include e.g. the authorization of additions, disposals and scrapings, and the reconciliation of fixed assets registers to the accounting records. In addition, we performed substantive audit procedures including testing of assets acquired in the year and depreciation of the fixed assets mainly through analytical audit procedures.

Key audit matter in the audit of the group	How our audit addressed the key audit matter
Valuation of Inventories Refer to note 4.4 in the consolidated financial statements. As at 31 December 2021 the group's inventories amounted to € 1,892 million. Inventories are stated at the lower of cost and net realizable value (NRV). Net realizable value is the estimated selling price in the ordinary course of business, less the estimated costs of completion and the estimated costs attributable to the sale. The most important commodity price risk for Outokumpu is caused by fluctuation in nickel and other alloy prices. The alloy surcharge clause as well as daily fixed pricing of stainless steel reduce the risk arising from the time difference between raw material purchase and product delivery. However, the risk is still relevant because the delivery cycle in production is longer than the alloy surcharge mechanism expects and the daily fixed pricing can also deviate from this cycle depending on the timing of the delivery. As the prices for all products to be sold in the future are not known, a significant part of the future prices are estimated according to management's best knowledge in net realizable value (NRV) calculations. Due to fluctuations in nickel and other alloy prices, the realized prices can deviate significantly from the estimates used in NRV calculations. Due to the high level of management judgment and the significant carrying amounts and risks relating to valuation, this is one of the key audit matters.	Our audit work included testing controls in place to ensure proper valuation and existence of inventories. In addition, our audit procedures included, among other things, the following: • We performed tests over the prices of raw materials and verified items in the product costing of work in progress. • We performed tests over the NRV calculations and the assumptions used. • We assessed the adequacy of the obsolescence provision and the management judgement used. • We participated in the physical inventory counting and performed independent test counts to validate the existence of assets and accuracy of the counting performed.

Key audit matter in the audit of the group	How our audit addressed the key audit matter
System environment and internal controls The group has a fragmented system environment. The fragmented system environment introduces risks related to system access, change management and data transfers between the different systems, and we have accordingly designated this as a key audit matter. The group is also implementing a new global IT system, which was taken into use in one new country in 2021. This introduces risks related to temporary increased complexity as well as the processes and data in the new system.	Our response to the risks related to the fragmented system environment included both testing of IT controls and tests of details. We tested the group's controls around access and change management related to the key IT systems. We also tested the group's controls around system interfaces and the transfer of data between systems. We noted certain weaknesses related to access controls to certain key systems. We reported those control weaknesses to the management and performed tests of details to reduce the related risks of material misstatement to an acceptably low level. We tested the group's controls related to the new IT system implementation. We also tested the completeness and accuracy of data migrations relevant for financial reporting.

Key audit matter in the audit of the parent company	How our audit addressed the key audit matter
Valuation of subsidiary shares in the parent company's financial statements As at 31 December 2021 the value of Outokumpu Oyj's subsidiary shares amounted to € 3,685 million in the parent company's financial statements prepared in accordance with Finnish GAAP. The valuation of subsidiary shares is tested as part of the group impairment testing based on the discounted cash flow model. The valuation of subsidiary shares is a key audit matter due to the significant carrying amounts involved and the high level of management judgement involved.	We assessed the appropriateness of the method and management's judgement and estimates in the calculations through the following procedures: • We evaluated the process by which the future cash flow forecasts were drawn up, including comparing them to medium term strategic plans and forecasts approved by the Board and testing the key underlying assumptions. • We considered whether the sensitivity analysis performed by management around key drivers of the cash flow forecast was appropriate by considering the likelihood of the movements of these key assumptions. • We compared the current year actual results included in the prior year impairment model to corroborate the reliability of management's estimates. • The discount rates applied within the model were assessed by PwC business valuation specialist, including comparison to economic and industry forecasts as appropriate.

There are no significant risks of material misstatement referred to in Article 10(2c) of Regulation (EU) No 537/2014 with respect to the consolidated financial statements or the parent company financial statements.

Responsibilities of the Board of Directors and the Managing Director for the Financial Statements

The Board of Directors and the Managing Director are responsible for the preparation of consolidated financial statements that give a true and fair view in accordance with International Financial Reporting Standards (IFRS) as adopted by the EU, and of financial statements that give a true and fair view in accordance with the laws and regulations governing the preparation of financial statements in Finland and comply with statutory requirements. The Board of Directors and the Managing Director are also responsible for such internal control as they determine is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, the Board of Directors and the Managing Director are responsible for assessing the parent company's and the group's ability to continue as a going concern, disclosing, as applicable, matters relating to going concern and using the going concern basis of accounting. The financial statements are prepared using the going concern basis of accounting unless there is an intention to liquidate the parent company or the group or to cease operations, or there is no realistic alternative but to do so.

Auditor's Responsibilities for the Audit of the Financial Statements

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with good auditing practice will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements.

As part of an audit in accordance with good auditing practice, we exercise professional judgment and maintain professional skepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the parent company's or the group's internal control.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.
- Conclude on the appropriateness of the Board of Directors' and the Managing Director's use of the going concern basis of accounting and based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the parent company's or the group's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the parent company or the group to cease to continue as a going concern.
- Evaluate the overall presentation, structure and content of the financial statements, including the disclosures, and whether the financial statements represent the underlying transactions and events so that the financial statements give a true and fair view.
- Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the group to express an opinion on the consolidated financial statements. We are responsible for the direction, supervision and performance of the group audit. We remain solely responsible for our audit opinion.

We communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

We also provide those charged with governance with a statement that we have complied with relevant ethical requirements regarding independence, and to communicate with them all relationships and other matters that may reasonably be thought to bear on our independence, and where applicable, related safeguards.

From the matters communicated with those charged with governance, we determine those matters that were of most significance in the audit of the financial statements of the current period and are therefore the key audit matters. We describe these matters in our auditor's report unless law or regulation precludes public disclosure about the matter or when, in extremely rare circumstances, we determine that a matter should not be communicated in our report because the adverse consequences of doing so would reasonably be expected to outweigh the public interest benefits of such communication.

Other Reporting Requirements

Appointment

We were first appointed as auditors by the annual general meeting on 21 March 2017. Our appointment represents a total period of uninterrupted engagement of 5 years.

Other Information

The Board of Directors and the Managing Director are responsible for the other information. The other information comprises the report of the Board of Directors and the information included in the Annual Report, but does not include the financial statements and our auditor's report thereon. We have obtained the report of the Board of Directors prior to the date of this auditor's report and the Annual Report is expected to be made available to us after that date.

Our opinion on the financial statements does not cover the other information.

In connection with our audit of the financial statements, our responsibility is to read the other information identified above and, in doing so, consider whether the other information is materially inconsistent with the financial statements or our knowledge obtained in the audit, or otherwise appears to be materially misstated. With respect to the report of the Board of Directors, our responsibility also includes considering whether the report of the Board of Directors has been prepared in accordance with the applicable laws and regulations.

In our opinion

- the information in the report of the Board of Directors is consistent with the information in the financial statements
- the report of the Board of Directors has been prepared in accordance with the applicable laws and regulations.

If, based on the work we have performed on the other information that we obtained prior to the date of this auditor's report, we conclude that there is a material misstatement of this other information, we are required to report that fact. We have nothing to report in this regard.

Other statements based on the decision by the Annual General Meeting

The proposal by the Board of Directors regarding the treatment of distributable funds is in compliance with the Limited Liability Companies Act. We support that the Board of Directors of the parent company and the President and CEO be discharged from liability for the financial period audited by us.

Helsinki 8 February 2022

PricewaterhouseCoopers Oy
Authorised Public Accountants

Janne Rajalahti
Authorised Public Accountant (KHT)

Independent Auditor's Reasonable Assurance Report on Outokumpu Oyj's ESEF Financial Statements

(Translation of the Finnish original)

To the Management of Outokumpu Oyj

We have been engaged by the Management of Outokumpu Oyj (business identity code 0215254-2) (hereinafter also "the Company") to perform a reasonable assurance engagement on the Company's consolidated IFRS financial statements for the financial year 1.1.–31.12.2021 in European Single Electronic Format ("ESEF financial statements"), version Outokumpu-2021-12-31-fi.zip.

Management's Responsibility for the ESEF Financial Statements

The Management of Outokumpu Oyj is responsible for preparing the ESEF financial statements so that they comply with the requirements as specified in the Commission Delegated Regulation (EU) 2019/815 of 17 December 2018 ("ESEF requirements"). This responsibility includes the design, implementation and maintenance of internal control relevant to the preparation of ESEF financial statements that are free from material noncompliance with the ESEF requirements, whether due to fraud or error.

Our Independence 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.

Our firm 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.

Our Responsibility

Our responsibility is to express an opinion on the ESEF financial statements based on the procedures we have performed and the evidence we have obtained.

We conducted our reasonable 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. That standard requires that we plan and perform this engagement to obtain reasonable assurance about whether the ESEF financial statements are free from material noncompliance with the ESEF requirements.

A reasonable assurance engagement in accordance with ISAE 3000 (Revised) involves performing procedures to obtain evidence about the ESEF financial statements compliance with the ESEF requirements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material noncompliance of the ESEF financial statements with the ESEF requirements, whether due to fraud or error. In making those risk assessments, we considered internal control relevant to the Company's preparation of the ESEF financial statements.

We believe that the evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Opinion

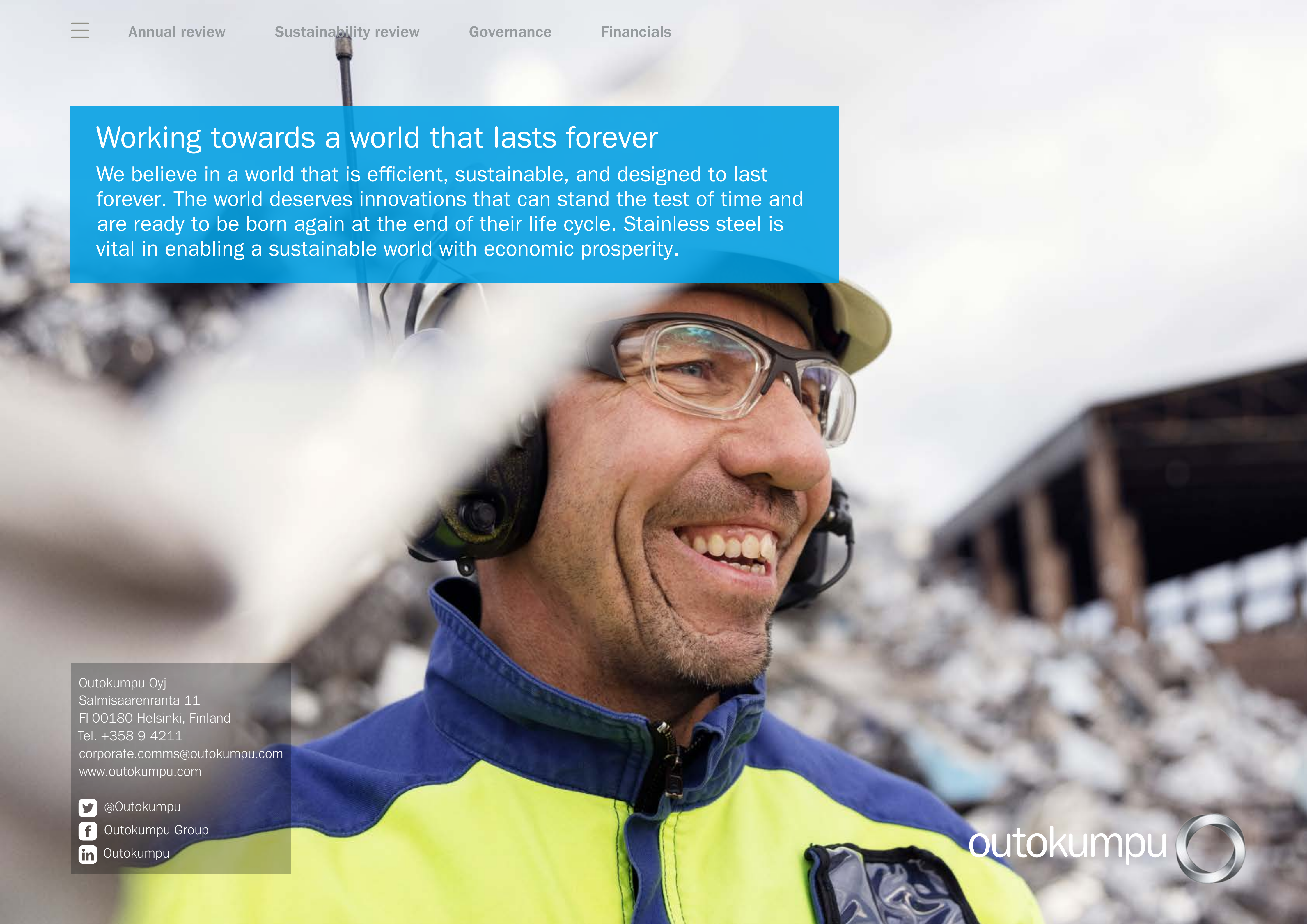
In our opinion, Outokumpu Oyj's ESEF financial statements for the financial year ended 31.12.2021 comply, in all material respects, with the ESEF requirements.

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

Helsinki, 4 March 2022

PricewaterhouseCoopers Oy
Authorised Public Accountants

Janne Rajalahti
Authorised Public Accountant (KHT)



Working towards a world that lasts forever

We believe in a world that is efficient, sustainable, and designed to last forever. The world deserves innovations that can stand the test of time and are ready to be born again at the end of their life cycle. Stainless steel is vital in enabling a sustainable world with economic prosperity.

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