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outokumpu

Review by the Board of Directors

Year 2018 was exceptional in the stainless steel markets. The US steel tariffs and the surge of low-cost imports to Europe led to unforeseen uncertainty and volatility. The challenging market environment highlighted the importance of focusing in the areas that are in our own control. Improved safety performance, better operational reliability and cost efficiency, as well as strengthened organizational health demonstrate the positive outcomes of that relentless work Outokumpu has done during the past years. Despite the market turbulence in 2018, Outokumpu was able to maintain reasonable profitability in Europe and improve the performance of Long Products and Ferrochrome operations. However, in the Americas, higher costs together with misalignment between commercial and supply chain processes led to disappointing financial results. Going forward, a clear step-change there is needed. Decisive actions in the Americas, diligent execution of the must-win battles, and restored market balance in Europe are crucial for Outokumpu to reach the 2020 targets.

Market development

In 2018, global apparent consumption of stainless steel increased by 5.4% compared to the previous year. Americas contributed to this with a growth of 7.8% followed by growth of 5.6% in APAC and 3.4% in EMEA. (Source: SMR, February 2019)

Global real demand for stainless steel products reached 43.2 million tonnes in 2018, an increase of 4.9% from 41.2 million tonnes in 2017. Real demand growth was strongest in the Architecture, Building, Construction & Infrastructure end-user segment at 5.8%, while Industrial & Heavy Industries, Petrochemical & Energy both grew by 5.7%. Consumer Goods & Medical and Automotive & Heavy Transport achieved growth of 4.5% and 3.5%, respectively. (Source: SMR, February 2019)

Financial performance

In 2018, Outokumpu's sales increased to EUR 6,872 million (EUR 6,356 million). Stainless steel deliveries were 2,428,000 tonnes compared to 2,448,000 tonnes in 2017.

Sales

€ million	2018	2017 Restated	2016
Europe	**4,267**	4,156	3,767
Americas	**1,715**	1,546	1,325
Long Products	**740**	591	487
Ferrochrome	**542**	610	371
Other operations	**587**	503	567
Intra-group sales	**–980**	–1,050	826
The Group	**6,872**	6,356	5,690

Adjusted EBITDA decreased in 2018 to EUR 485 million (EUR 631 million) as the result was burdened by higher graphite electrode, other input and freight costs of approximately EUR 140 million. In Europe, base prices reached historically low levels due to heavy import pressure while in the US, base prices increased compared to the previous year. Improved product mix in both regions had a positive impact on the result, and earnings were further supported by improved cost efficiency and reliability of the mills. Raw material-related inventory and metal derivative losses were EUR 16 million (losses of EUR 10 million).

EBIT amounted to EUR 280 million (EUR 445 million) in 2018 and net result to EUR 130 million (EUR 392 million). The net result includes EUR 34 million (EUR 125 million) of previously unrecognized deferred tax assets mainly in the UK. Earnings per share decreased to EUR 0.32 in 2018 (EUR 0.95).

Profitability

€ million	2018	2017 Restated	2016
Adjusted EBITDA			
Europe	**248**	404	295
Americas	**–5**	21	–27
Long Products	**25**	16	–1
Ferrochrome	**210**	217	80
Other operations and intra-group items	**7**	–27	–38
Group adjusted EBITDA	**485**	631	309
Adjustments	**10**	31	47
EBITDA	**496**	663	355
EBIT	**280**	445	103
Share of results in associated companies and joint ventures	**3**	9	5
Financial income and expenses	**–107**	–127	–121
Result before taxes	**175**	327	–13
Income taxes	**–45**	65	156
Net result for the financial year	**130**	392	144
EBIT margin, %	**4.1**	7.0	1.8
Return on capital employed, %	**7.0**	11.3	2.6
Earnings per share, €	**0.32**	0.95	0.35
Diluted earnings per share, €	**0.32**	0.90	0.35
Net cash generated from operating activities	**214**	328	389

Operating cash flow of EUR 214 million in 2018 was lower than EUR 328 million in 2017. Net debt increased to EUR 1,241 million compared to EUR 1,091 million at the end of 2017. Gearing increased to 45.1% from 40.1% at the end of 2017.

Net financial expenses were EUR 107 million in 2018 (EUR 127 million). Interest expenses decreased to EUR 70 million in 2018 compared to EUR 92 million in 2017. Cash and cash equivalents were at EUR 68 million at the end of the year (EUR 112 million) and overall liquidity reserves were above EUR 0.7 billion (EUR 0.8 billion). In addition to these reserves, in

December Outokumpu agreed a EUR 120 million long-term loan facility to finance its DeepMine project in Kemi, Finland.

Key financial indicators on financial position

€ million	2018	2017 Restated	2016
Net debt			
Non-current debt	**798**	698	987
Current debt	**511**	505	458
Cash and cash equivalents	**68**	112	204
Net debt	**1,241**	1,091	1,242
Shareholders' equity	**2,750**	2,721	2,416
Return on equity, %	**4.8**	15.4	6.4
Debt-to-equity ratio, %	**45.1**	40.1	51.4
Equity-to-assets ratio, %	**45.9**	46.3	40.4
Interest expenses	**70**	92	105

Capital expenditure increased to EUR 260 million (EUR 174 million) primarily as a result of ongoing investments in the Kemi mine and the digital transformation project Chorus, including the ERP renewal, as well as the acquisition of Fagersta Stainless.

Capital expenditure

€ million	2018	2017	2016
Europe	**76**	70	81
Americas	**18**	18	17
Long Products	**30**	8	8
Ferrochrome	**79**	34	20
Other operations	**57**	44	37
The Group	**260**	174	164
Depreciation and amortization	**204**	216	226

Business areas

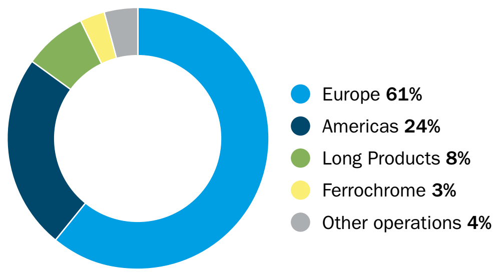
Europe's sales increased to EUR 4,267 million in 2018 (EUR 4,156 million) while adjusted EBITDA decreased to EUR 248 million (EUR 404 million). Stainless steel deliveries decreased by 2% compared to previous year and amounted to 1,547,000 tonnes (1,582,000 tonnes). Realized base prices decreased due to severe import pressure particularly during the second half of the year, but this was partly offset by significantly improved product mix. Graphite electrode and other input costs were approximately EUR 80 million higher in 2018 compared to 2017, but improved cost efficiency offset part of this impact. Raw material-related inventory and metal derivative losses were EUR 26 million (losses of EUR 24 million). In Europe, distributor inventories were slightly above their long-term average level at the end of the year. Average EU base price for 2018 amounted to EUR 903/tonne (EUR 1,123/tonne).

Americas' sales increased to EUR 1,715 million in 2018 (EUR 1,546 million), but adjusted EBITDA decreased to EUR –5 million (EUR 21 million). Stainless steel deliveries were 762,000 tonnes in 2018 (742,000 tonnes). Realized base prices increased supported by improved product mix, but significantly higher graphite electrode and other input costs together with increased freight expenses had a negative impact of approximately EUR 40 million on the 2018 result. Raw material-related inventory and metal derivative gains were EUR 20 million compared to gains of EUR 11 million in 2017. In the US, distributor inventories were above their long-term average level at the end of the year. Average US base price for 2018 was USD 90/tonne higher than in 2017 and amounted to USD 1,464/tonne.

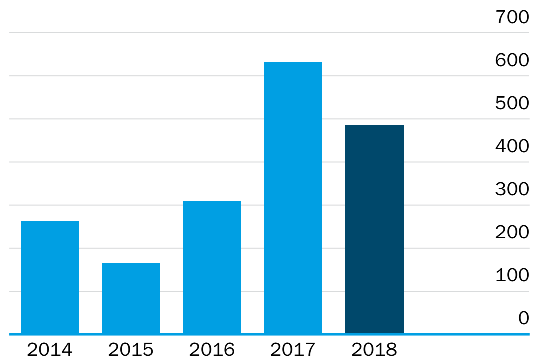
Long Products' sales increased to EUR 740 million in 2018 (EUR 591 million) and adjusted EBITDA increased to EUR 25 million (EUR 16 million). Stainless steel deliveries increased by 8% and amounted to 285,000 tonnes (264,000 tonnes). Realized base prices increased significantly, but on the other hand, graphite electrode and other input costs were approximately EUR 20 million higher in 2018 compared to the previous year. Raw material-related inventory and metal derivative impact was EUR 0 million compared to gains of EUR 3 million in 2017. The performance of the business area was supported by the acquisition of Fagersta Stainless AB in Sweden in June 2018. During the full year, demand was robust in all markets. Order intake towards the end of the year weakened in Europe driven by slowdown particularly in automotive segment. In 2018, base prices increased from the previous year.

Ferrochrome's sales decreased to EUR 542 million in 2018 (EUR 610 million). Ferrochrome production was 497,000 tonnes compared to 415,000 tonnes in 2017, when the operations were negatively impacted by production issues and

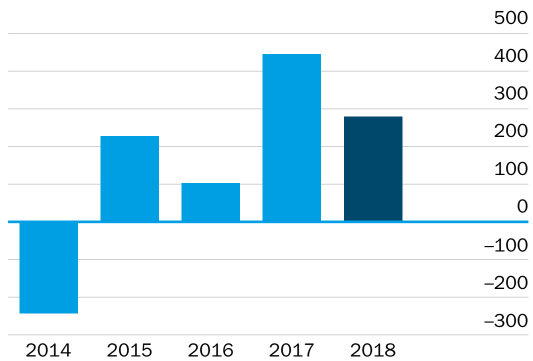
Sales, € 6,872 million



Adjusted EBITDA, € million



EBIT, € million



maintenance work. Adjusted EBITDA decreased to EUR 210 million in 2018 (EUR 217 million) as average ferrochrome contract price in 2018 was USD 0.11/lb. lower than in 2017 and costs increased primarily due to higher coke costs. 2018 adjusted EBITDA was positive impacted by the insurance compensation related to the 2017 property damage and business interruption. In 2018, the average European benchmark price for ferrochrome was USD 1.31/lb. compared to USD 1.42/lb. in 2017.

Non-financial development at Outokumpu

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. Due to these properties stainless steel consumption has been growing more rapidly than any other metal in recent decades (source: CRU, August 2017).

Outokumpu's business is based on a circular economy. Over 85% of the 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 life-cycle, stainless steel is fully recyclable, without any loss of quality. 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 private-sector employers in the area.

The majority of external deliveries are austenitic and ferritic standard and specialty stainless steels with the remaining being duplex and other stainless steel grades. 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, and the finishing and services.

Policies and principles of sustainability management

At Outokumpu, the CEO is responsible for the top-level management of sustainability. The corporate EHS unit is responsible for the group-wide execution of sustainability strategy. 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.

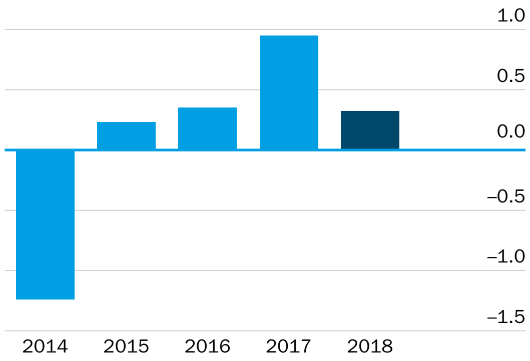
The most important policies guiding Outokumpu's Sustainability Management are the Group's Code of Conduct, Corporate Responsibility Policy and the Policy on Environment, Health, Safety and Quality (EHSQ), all available on Outokumpu's website. Outokumpu's Code of Conduct defines the common way of operating in the Group and sets principles for legal compliance and ethical conduct, including zero tolerance for corrupt practices and requiring compliance with antitrust and competition laws. The Corporate Responsibility Policy describes the main principles of the sustainable development of economic, environmental, and social aspects in the Group. 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. At Outokumpu, 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.

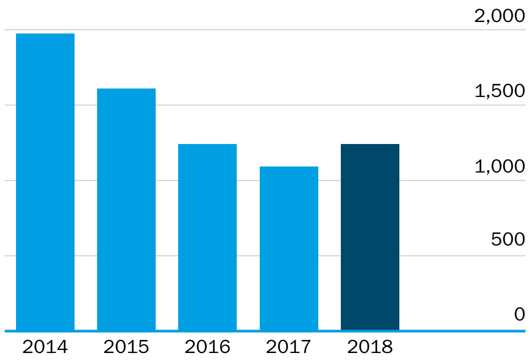
In addition to the EHSQ policy, Outokumpu has strict guidelines for safety through the Outokumpu Safety Principles and Health and Safety Standard. Safety is one of the company's six must-win battles and is therefore a top priority across the company. The health and safety of the personnel is a precondition for successful day-to-day operations as well as for long-term competitiveness. Outokumpu works towards a goal of zero accidents.

Corporate statements, policies and instructions are the basis of the Outokumpu operating model in governance, risk, and

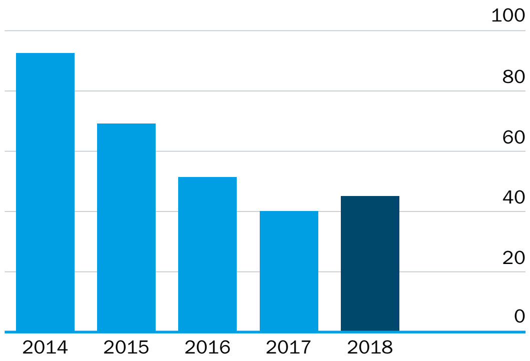
Earnings per share, €



Net debt, € million



Debt-to-equity ratio, %



compliance. Policies and instructions are implemented through internal communication, mandatory training and internal control mechanisms. Outokumpu has an on-going governance, risk and compliance project to further enhance and develop internal control processes.

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. Outokumpu carried out screenings of Environment, Social and Governance issues on raw material suppliers in 2018. In addition, annual environmental audits are performed based on an internal risk assessment. In addition, more than half of suppliers are going through a monthly compliance screening for sanctions. As part of the overall management set-up, the established incentive systems support the achievement of strategic targets, such as safety which is the highest priority.

Outokumpu also follows the 2-degree scenario committed to the Science Based Targets Initiative and contributes to the UN Social Development Goals. Outokumpu complies with international, national, and local laws and regulations, and respects international agreements concerning human and labor rights, such as the United Nations' Universal Declaration of Human Rights and condemns the use of forced and child labor. All Outokumpu employees are free to join trade unions according to local rules and regulations. Outokumpu expects its suppliers and contractors to comply with applicable laws and regulations as well as Outokumpu's Code of Conduct or similar standards and principles, and to meet the company's supplier requirements. Outokumpu aims to ensure that modern slavery or human trafficking plays no part in our supply chain or in any part of our business.

Long-term sustainability targets

Outokumpu aims to improve the Group's resource efficiency by minimizing the use of virgin materials and primary energy and by contributing to climate protection. The Group's targets are:

- Recycled content of 90% by 2020
- Improvement of energy efficiency by 1% yearly until 2020
- Outokumpu commits to reduce scope 1, 2 and 3 GHG emissions 20% per ton of stainless steel by 2023 from a 2014–2016 base-period.
- Top decile position in safety in the industry by 2020 and long-term target of zero incidents.

Outokumpu's emissions intensity trajectory includes the upstream emissions from supply chain and is in line with the sectoral decarbonization approach of the steel industry.

Environmental performance

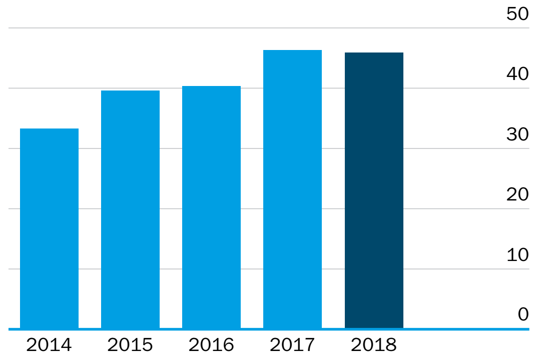
The main environmental impacts from stainless steel production are the use of virgin materials, direct and indirect energy, dust emissions into the air, water discharges from production plants, and waste created in the production process.

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. All used slag compared to the used and landfilled slag (use rate) is slightly reduced but the amount of landfilled slag was approximately the same. On top of production waste, tailing sand from mining is the most significant waste item to be deposited in the mine site.

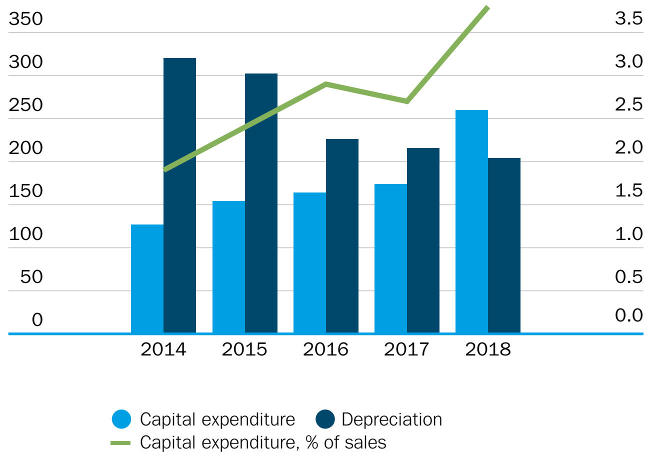
In 2018, Outokumpu maintained the level of recycled content (all metallic input from waste streams, as scrap, scales or metals from slag and dust treatment, per tonne stainless steel) at 88.6% (2017: 87.0% and 2016: 87.1%). The change of the energy efficiency calculated as a sum of different process steps was 8.9% (2017: 10.4% and 2016: 11.0%) compared to the baseline of 2007–2009 on a comparable basis. There were no significant environmental incidents.

All in all, Outokumpu is well on track to reach its long-term sustainability targets, of which the energy efficiency target is behind this year. In 2018, Outokumpu restated CO_2 intensity according to the target approved by the Science Based Target

Equity-to-assets ratio, %



Capital expenditure and depreciation, € million



initiative and reduced it by about 8% from baseline period. Landfilled waste increased as several waste materials such as dust, sludge or refractories needed to be landfilled in a higher amount.

All Outokumpu sites have environmental permits that set the basic framework for production operations. In 2018, emissions and effluents remained within permitted limits, and the minor breaches that occurred were temporary, identified, and had only a minimal impact on the environment. The melting shop in Tornio detected three cases of radioactive americium sources during the year. Two of them came in to melting among raw materials. One incident was detected in control of incoming scrap and did not cause any risk on employees or environment: low-active dusts and slags were treated and separately landfilled according to the guidance of the Finnish Radiation and Nuclear Safety Authority.

The EU Emissions Trading Scheme (ETS) is continuing with the third trading period 2013–2020. Outokumpu's operations under the EU ETS will continue to receive free emissions allocations according to efficiency-based benchmarks and historical activity. The total allocation was sufficient for the Group's operations during 2018 and will be sufficient for 2019. Free allocation for the group is below the expected emissions for 2019. 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.

Environmental indicators

	2018	2017	2016
Scope 1, 2 and 3 (direct and indirect) CO_2 emission intensity, tonnes per tonne stainless steel	**1,719**	1,839	1,863 [1]
Energy intensity, GJ per tonne stainless steel	**10.1**	9.3	9.8
Use rate of slag including slag from ferrochrome production, %	**88.1**	91.1 [2]	90.2
Total landfill waste intensity per tonne stainless steel	**0.472**	0.361	0.406

[1] 2014–2016 baseline 1,863 tonnes

[2] Restated

Social performance

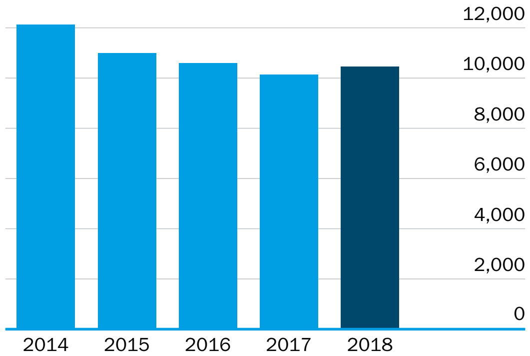
Outokumpu's main indicator for safety performance is the total recordable incident frequency rate (TRIFR), which includes fatal accidents, lost-time incidents, restrictive work incidents, and medically treated incidents per million working hours. Group TRIFR improved slightly from the previous year and was 4.1 against the target of <4.0 (2017: 4.4). In 2018, Outokumpu continued to train its employees in behavioral safety according to the program started in 2017.

Outokumpu's headcount increased by 308 during the year and totaled 10,449 at the end of December 2018 (2017: 10,141 and 2016: 10,600). The increase was driven by the acquisition of Fagersta Stainless in Sweden. Total wages and salaries amounted to EUR 541 million in 2018 (2017: EUR 549 million and 2016: EUR 562 million). Indirect employee benefit expenses totaled EUR 135 million in 2018 (2017: EUR 135 million and 2016: EUR 151 million).

Outokumpu provides a whistleblowing hotline "Helpline" on the company's intranet and webpage to anonymously report of suspicions of misconduct or unethical behavior. In 2018, Outokumpu recorded fourteen alleged incidents of potential misconduct through Helpline and other channels. All of these incidents were investigated in detail and proper corrective action has been taken as a consequence.

Raising awareness of and training on the Code of Conduct and its topics are central elements of Outokumpu's compliance program. As a part of these efforts, Outokumpu issued in 2018 two compliance-related e-learning courses. The anti-corruption e-learning course was mandatory for white-collar employees and achieved a completion rate of 97%. The second data protection e-learning with focus on the EU GDPR (EU General Data Protection Regulation) was also mandatory for white-collar employees and obtained a completion rate of 98%. The Code of Conduct e-learning launched in 2017, mandatory for white-collar employees, was in 2018 issued for also blue-collar employees with an aim to complete the training site by site in 2019.

Personnel on December 31, 2018



Key social indicators

	2018	2017	2016
Diversity			
Employees			
male, %	**85**	86	84
female, %	**15**	14	16
Board of Directors			
male, %	**67**	71	67
female, %	**33**	29	33
Safety			
Total recordable incident frequency rate, per million working hours	**4.1**	4.4	8.7

Research and development

Outokumpu's research and development (R&D) works closely together with sales, operations and customers to support the business and align R&D activities with customers' current and future needs. Outokumpu has three R&D centers located in Avesta in Sweden, in Krefeld in Germany and in Tornio in Finland. In 2018, Outokumpu's R&D expenditure totaled EUR 15 million, 0.2% of net sales (2017: 13 million and 0.2%, 2016: EUR 20 million and 0.4%).

In 2018, R&D was reorganized in Process R&D, Product and Application R&D and industrial digitalization teams to further improve R&D impact and to optimize utilization and development of the R&D competences. Process R&D teams focus on developing the efficiency of the operations and develop the competences in process and physical metallurgy and alloy development. Product and application R&D teams focus on product properties, applications and product development in selected strategic areas, as well as on developing competences in corrosion, design & fabrication, surface technology and stainless steel application technologies.

R&D, technical market development and customer service and product management teams took steps towards even more close cooperation. The closer cooperation aims at increasing speed in R&D project execution and to maximizing impact of the R&D activities through efficient prioritization and resource use.

Risks and uncertainties

Outokumpu operates in accordance with the risk management policy approved by the company's Board of Directors. This defines the objectives, approaches and areas of responsibility in the Group's risk management activities. As well as supporting Outokumpu's strategy, the aim of risk management is identifying, evaluating and mitigating risks from the perspective of shareholders, customers, suppliers, personnel, creditors and other stakeholders.

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.

The risk management process is an integral part of the overall management processes and is divided into four stages: risk identification, evaluation / prioritization, mitigation and reporting. Key risks are assessed and updated on a regular basis.

The focus in risk management in 2018 was on implementing the actions for the mitigation of the identified risks, supporting improvements in operational reliability in Outokumpu e.g. by modelling business interruption risks and on improving the efficiency of the risk management process. The efforts also included actions to support the reduction of Group's operational costs, improvements in metal and commodity risk management processes as well as improving the efficiency and controls of Outokumpu's operations as part of a large business process transformation program.

Outokumpu continued its fire safety and loss prevention audit program, which focused also in operational reliability to prevent machinery breakdown related business interruptions. In total, some twenty fire safety loss prevention audits were carried out in 2018 using in-house expertise in cooperation with external advisors.

The main realized risks in 2018 were related to increased costs in certain supply materials, inadequate profitability of business area Americas, market disruptions related to Section 232 and delayed implementation of the business process transformation program.

Strategic and business risks

Outokumpu's key strategic and business risks currently include: risks and uncertainties relating to the development of overcapacity of global stainless steel production and volatility of raw material and end product prices, risks and uncertainties in implementing the announced vision, including measures to implement new IT systems and processes, improve operational reliability, drive competitiveness and further improve financial performance; the risk of trade war due to the US steel import tariffs and the safeguard measures initiated by EC; risks and uncertainties related to developments in the stainless steel and ferrochrome markets and competitor actions; changes in the prices of electrical power, fuels, nickel, iron and molybdenum impacting cash flow; fluctuations in exchange rates affecting the global competitive environment in stainless; and the risk of litigation or adverse political action affecting trade.

Operational risks

Key operational risks for Outokumpu are: a major fire or machinery breakdown and consequent business interruptions; IT dependency and cyber security risks; risks due to a fragmented system environment; risks related to supply chain and certain critical supplier dependencies; and project implementation risks, especially related to implementation of new ERP systems. 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 impacts. Outokumpu's operational risks are partly covered by insurance. To minimize the possible damage to property and business interruptions that could result from a fire occurring at some of its major production sites, Outokumpu has systematic fire safety audit programs in place. During the last year further measures were taken to improve operational reliability in connection with loss prevention actions.

Environmental 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 their impact on Outokumpu's competitive position; as well as the risk of increased electricity prices and emissions costs due to the European Union's unilateral Emissions Trading System (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.

Safety- and personnel-related risks

The main risks related to safety and personnel are the risk of fatalities and serious injuries to own employees and contractors, which would also have a significant impact on Outokumpu's 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 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 at its joint ventures and other companies.

Sustainability and corporate responsibility risks
Outokumpu aims to actively identify risks related to its exposures in sustainability and corporate responsibility, including human rights related topics. Outokumpu takes seriously all labor practice violations and related threats as well as its full transparency and compliance on human rights topics. However, Outokumpu operates mainly in regions, where the risk related to human rights is not considered to be high.

Financial risks

Key financial risks for Outokumpu include: changes in the prices of nickel, iron, molybdenum, power, and fuels; currency developments affecting the euro, the US dollar, the Swedish krona, and the British pound; interest rate changes connected to the US dollar, the euro, and the Swedish krona; interest margin changes applied for Outokumpu; constrained access to new financing; counterparty risks related to customers and other business partners, including suppliers and financial institutions; risks related to liquidity and refinancing; risks related to the fair value of shareholdings; the risk of breaching financial covenants or other terms and conditions of debt leading to an event of default; and risks related to the prices of equities and fixed-income securities invested under defined benefit pension plans and risks related to valuation parameters, especially long-term interest rates, of defined benefit plans.

Short-term risks and uncertainties

Outokumpu is exposed to the following risks and uncertainties in the short term: risks and uncertainties in implementing the announced vision, including measures to implement new IT systems and processes, improve operational reliability, drive competitiveness and further improve financial performance; the risk of trade war due to the US steel import tariffs and the safeguard measures initiated by EU; risks and uncertainties related to global overcapacity in stainless steel as well as to market development in stainless steel, ferrochrome and competitor actions; availability and price of certain critical supplies, such as graphite electrodes; dependencies on certain critical suppliers; the risk of changes in metal prices impacting capital tied up in inventories and account receivables; changes in the prices of electrical power, fuels, ferrochrome, nickel, iron and molybdenum; currency developments affecting the euro, US dollar, Swedish krona, and British pound; changes in interest margins applied for Outokumpu; fair value of shareholdings; project implementation risks; IT dependency and cyber security risks; risks due to fragmented system environment; counterparty risks related to customers and other business partners, including suppliers and financial institutions. Possible adverse changes in the global political and economic environment including unfavorable no-deal or hard Brexit scenario to Outokumpu may have a significant adverse impact on Outokumpu's overall business and access to financial markets.

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 Spanish company in connection with the divestment. The court of first instance in Spain accepted the claim of EUR 20 million brought against Outokumpu and the two other companies. Outokumpu and the two other companies then appealed the court's decision and in March 2018 the Court of Appeal ruled in favor of Outokumpu. In May 2018, the administrator of the bankruptcy estate filed an appeal before the Spanish Supreme Court, where the case pending.

Claim in Italy related to former tax consolidation group

In December 2015, Outokumpu Holding Italia and Acciai Speciali Terni (AST) entered into a dispute relating to the tax consolidation of the former ThyssenKrupp Tax Group in Italy. AST claims payment of approximately EUR 23 million resulting from the former tax consolidation of the Italian tax group managed by ThyssenKrupp. Outokumpu Holding Italia is the former ThyssenKrupp holding company and was transferred to Inoxum as part of the carve-out in 2011. The EUR 23 million claim resulted from tax benefits (tax losses, tax credits and interest expenses) transferred by AST to the Italian tax group during the period from financial year 2007/08 until 2013, which have in AST's view not been properly settled towards them in the following years. The matter is currently pending in court in Italy.

Antitrust investigation in Germany

In September 2016, Outokumpu learned of a cartel investigation initiated by the German Federal Cartel Office involving, among others, Outokumpu Nirosta GmbH, Outokumpu's subsidiary in Germany. Outokumpu initiated an internal investigation and became convinced that the investigation is without merit, as far as Outokumpu is concerned. In May 2018, Outokumpu received an official notification from the German Federal Cartel Office confirming that the investigation against Outokumpu Nirosta GmbH was terminated.

Shares

On December 31, 2018, Outokumpu's share capital was EUR 311 million, and the total number of shares was 416,374,448. At the end of the year, Outokumpu held 5,810,729 treasury shares. The average number of shares outstanding in 2018 was 411,065,622.

Management shareholdings and share based incentive programs

On December 31, 2018, the members of the Board of Directors and the members of the Outokumpu Leadership Team (OLT) altogether held 2,483,353 shares, or 0.6% of the total number of shares.

Outokumpu has established share-based incentive programs for the OLT members, selected managers and key employees. Outokumpu's share-based incentive programs include Performance Share Plan, Restricted Share Pool and Matching Share Plans for the CEO and other key employees. In 2018, after deductions for applicable taxes, a total of 892,170 shares were delivered to the participants of the programs based on the achievements of the agreed targets and 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 2017–2019 and 2018–2020, and their continuation for the period 2019–2021 was already approved by the Board of Directors in December 2018. The Performance Share Plan for the periods 2017–2019 and 2018–2020 focuses on earnings criteria that measures Outokumpu's profitability and the efficiency with which its capital is employed compared to a peer group.

More details on the share-based incentive programs can be found in the note 18 in the consolidated financial statements.

Corporate governance

Outokumpu's Corporate Governance Statement can be found on the Outokumpu website.

Annual General Meeting

The Annual General Meeting of Outokumpu Oyj was held on March 22, 2018. The Meeting approved the financial statements and discharged the management of the company from liability for the financial year 2017. The Meeting decided that a dividend of 0.25 euros per share shall be paid for 2017. The Board of Directors was authorized to repurchase the company's own shares and decide on the issuance of shares as well as special rights entitling to shares. The Meeting also approved the proposals of the Nomination Board regarding the members of the Board of Directors and their remuneration.

The Annual General Meeting decided in accordance with the proposal by the Nomination Board that the Board of Directors would consist of six members. Kati ter Horst, Heikki Malinen, Eeva Sipilä and Olli Vaartimo were re-elected, and Kari Jordan and Pierre Vareille were elected as new members for the term of office ending at the end of the next Annual General Meeting. Kari Jordan was elected as the Chairman and Olli Vaartimo as the Vice Chairman of the Board of Directors.

Nomination Board

Outokumpu's Shareholders' Nomination Board consists of the representatives of the four largest shareholders registered in the shareholders' register of the company on October 1 and the Chairman of the Board of Directors as an expert member. 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 October 1, 2018 the four largest shareholders of Outokumpu were Solidium Oy, Varma Mutual Pension Insurance Company, Ilmarinen Mutual Pension Insurance Company and The Social Insurance Institution of Finland, and they have appointed the following representatives to the Nomination Board:

- Antti Mäkinen, Managing Director at Solidium Oy
- Pekka Pajamo, CFO at Varma Mutual Pension Insurance Company
- Jouko Pölönen, President and CEO, at Ilmarinen Mutual Pension Insurance Company
- Tuula Korhonen, Investment Manager at The Social Insurance Institution of Finland

The Nomination Board has submitted its proposals to Outokumpu's Board of Directors on January 24, 2019.

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 per cent of net income. According to the parent company's financial statements on December 31, 2018 distributable funds totaled EUR 2,298 million, of which retained earnings were EUR 175 million.

The Board of Directors is proposing to the Annual General Meeting to be held on March 27, 2019 that a dividend of EUR 0.15 per share is paid for 2018.

Group key figures

		2018	2017 [1]	2016	2015	2014
Scope of activity						
Sales	€ million	**6,872**	6,356	5,690	6,384	6,844
– change in sales	%	**8.1**	11.7	–10.9	–6.7	1.5
– exports from and sales outside Finland, of total sales	%	**96.7**	96.5	96.4	96.6	96.7
Capital employed on Dec 31 [2]	€ million	**4,086**	3,929	3,816	4,133	4,072
Capital expenditure [3]	€ million	**260**	174	164	154	127
–in relation to sales	%	**3.8**	2.7	2.9	2.4	1.8
Depreciation and amortization	€ million	**204**	216	226	302	320
Impairments	€ million	**12**	2	26	1	27
Research and development costs	€ million	**15**	13	20	23	23
–in relation to sales	%	**0.2**	0.2	0.4	0.4	0.3
Personnel on 31 Dec [4]		**10,449**	10,141	10,600	11,002	12,125
– average for the year [3]		**10,468**	10,485	10,977	11,833	12,540
Profitability						
Adjusted EBITDA	€ million	**485**	631	309	165	263
EBITDA	€ million	**496**	663	355	531	104
EBIT	€ million	**280**	445	103	228	–243
– in relation to sales	%	**4.1**	7.0	1.8	3.6	–3.6
Result before taxes	€ million	**175**	327	–13	127	–459
– in relation to sales	%	**2.5**	5.1	–0.2	2.0	–6.7
Net result for the financial year	€ million	**130**	392	144	86	–439
– in relation to sales	%	**1.9**	6.2	2.5	1.4	–6.4
Return on equity [2]	%	**4.8**	15.4	6.4	3.9	–21.8
Return on capital employed [2]	%	**7.0**	11.3	2.6	5.3	–5.8

		2018	2017 [1]	2016	2015	2014
Financing and financial position						
Net debt	€ million	**1,241**	1,091	1,242	1,610	1,974
– in relation to sales	%	**18.1**	17.2	21.8	25.2	28.8
Net financial expenses	€ million	**107**	127	121	149	223
– in relation to sales	%	**1.6**	2.0	2.1	2.3	3.3
Interest expenses	€ million	**70**	92	105	130	141
– in relation to sales	%	**1.0**	1.5	1.9	2.0	2.1
Net debt to Adjusted EBITDA		**2.6**	1.7	4.0	9.8	7.5
Share capital	€ million	**311**	311	311	311	311
Total equity	€ million	**2,750**	2,721	2,416	2,329	2,132
Equity-to-assets ratio	%	**45.9**	46.3	40.4	39.6	33.3
Debt-to-equity ratio	%	**45.1**	40.1	51.4	69.1	92.6
Net cash generated from operating activities [3]	€ million	**214**	328	389	–34	–126

[1] Figures for 2017 have been restated due to IFRS 15 adoption. Figures for 2014–2016 have not been restated.

[2] Key figure definition changed in 2016. Figures for 2015 have been restated. Figures for 2014 have not been restated.

[3] Year 2014 reported for continuing operations.

[4] Personnel reported as headcount.

Reconciliation of key financial figures

Key figure	Definition of the key figure or source in the consolidated financial statements		2018	2017
Sales	Consolidated statement of income	€ million	**6,872**	6,356
– change in sales	Comparison to previous year's sales	%	**8.1**	11.7
Sales by destination to Finland	Note 3. Segment information	€ million	**230**	222
Exports from and sales outside Finland	Sales – Sales by destination to Finland	€ million	**6,642**	6,134
– exports from and sales outside Finland, of total sales	Comparison to sales	%	**96.7**	96.5
Depreciation and amortization	Note 6. Income and expenses	€ million	**204**	216
Impairments	Note 6. Income and expenses and note 8. Financial income and expenses	€ million	**12**	2
Research and development costs	Consolidated statement of income	€ million	**15**	13
– in relation to sales	Comparison to sales	%	**0.2**	0.2
Adjusted EBITDA	EBITDA – Items classified adjustments to EBITDA	€ million	**485**	631
Adjustments to EBITDA	Note 6. Income and expenses	€ million	**10**	31
EBITDA	EBIT before depreciation, amortization and impairments in Note 6. Income and expenses	€ million	**496**	663
EBIT	Consolidated statement of income	€ million	**280**	445
– in relation to sales	Comparison to sales	%	**4.1**	7.0

Key figure	Definition of the key figure or source in the consolidated financial statements		2018	2017
Capital employed is a sum of:				
Total equity	Consolidated statement of financial position	€ million	**2,750**	2,721
Net debt	Defined below	€ million	**1,241**	1,091
Defined benefit and other long-term employee benefit obligations	Consolidated statement of financial position	€ million	**318**	337
Net interest rate derivative liabilities	Note 20. Fair values and nominal amounts of derivative instruments	€ million	**–2**	3
Net accrued interest expenses	Note 28. Trade and other payables	€ million	**5**	6
Less:				
Defined benefit plan assets	Consolidated statement of financial position	€ million	**72**	70
Financial assets at fair value through other comprehensive income	Consolidated statement of financial position	€ million	**86**	–
Available-for-sale financial assets	Consolidated statement of financial position	€ million	**–**	68
Investments at fair value through profit or loss	Consolidated statement of financial position	€ million	**13**	17
Investments in associate companies and joint ventures	Consolidated statement of financial position	€ million	**53**	73
Capital employed on Dec 31		€ million	**4,086**	3,929
Capital employed on Dec 31 of previous year	Defined above	€ million	**3,929**	3,816
Capital employed on March 31		€ million	**3,854**	4,075
Capital employed on June 30		€ million	**4,023**	3,991
Capital employed on Sept 30		€ million	**4,037**	3,830
Capital employed on Dec 31	Defined above	€ million	**4,086**	3,929
Capital employed (4-quarter average)	Average of the opening and 4 quarter-end values	€ million	**3,986**	3,928
Return on capital employed	EBIT / Capital Employed (4-quarter average)	%	**7.0**	11.3

Key figure	Definition of the key figure or source in the consolidated financial statements		2018	2017
Result before taxes	Consolidated statement of income	€ million	**175**	327
– in relation to sales	Comparison to sales	%	**2.5**	5.1
Net result for the financial year	Consolidated statement of income	€ million	**130**	392
– in relation to sales	Comparison to sales	%	**1.9**	6.2
Share capital	Consolidated statement of financial position	€ million	**311**	311
Total equity	Consolidated statement of financial position	€ million	**2,750**	2,721
Total equity on Dec 31 of previous year	Consolidated statement of financial position	€ million	**2,721**	2,416
Total equity on March 31		€ million	**2,655**	2,502
Total equity on June 30		€ million	**2,686**	2,561
Total equity on Sept 30		€ million	**2,710**	2,543
Total equity on Dec 31	Consolidated statement of financial position	€ million	**2,750**	2,721
Total equity (4-quarter average)	Average of the opening and 4 quarter-end values	€ million	**2,704**	2,549
Return on equity	Net result for the financial year / Total equity (4-quarter average)	%	**4.8**	15.4

Key figure	Definition of the key figure or source in the consolidated financial statements		2018	2017
Non-current debt	Consolidated statement of financial position	€ million	**798**	698
Current debt	Consolidated statement of financial position	€ million	**511**	505
Cash and cash equivalents	Consolidated statement of financial position	€ million	**68**	112
Net debt	Non-current debt + current debt – cash and cash equivalents	€ million	**1,241**	1,091
– in relation to sales	Comparison to sales	%	**18.1**	17.2
Net financial expenses	Consolidated statement of income	€ million	**107**	127
– in relation to sales	Comparison to sales	%	**1.6**	2.0
Interest expenses	Consolidated statement of income	€ million	**70**	92
– in relation to sales	Comparison to sales	%	**1.0**	1.5
Net debt to Adjusted EBITDA	Net debt / Adjusted EBITDA		**2.6**	1.7
Total assets	Consolidated statement of financial position	€ million	**5,998**	5,887
Advances received	Note 28. Trade and other payables	€ million	**10**	8
Equity-to-assets ratio	Total equity / (Total assets – advances received)	%	**45.9**	46.3
Deb-to-equity ratio	Net debt / Total equity	%	**45.1**	40.1
Net cash generated from operating activities	Consolidated statement of cash flows	€ million	**214**	328

Figures for 2017 have been restated due to IFRS 15 adoption.

Share-related key figures

		2018		2017	2016	2015	2014
Earnings per share [1), 2)]	€	**0.32**		0.95	0.35	0.23	–1.24
Diluted earnings per share [1), 2)]	€	**0.32**		0.90	0.35	0.23	–1.24
Earnings per share, continuing operations	€	**–**		–	–	–	–1.27
Diluted earnings per share, continuing operations	€	**–**		–	–	–	–1.27
Cash flow per share [2)]	€	**0.52**		0.79	0.94	–0.08	–0.36
Equity per share [1)]	€	**6.70**		6.59	5.84	5.60	5.13
Dividend per share	€	**0.15**	3)	0.25	0.10	–	–
Dividend payout ratio [1)]	%	**47.4**		26.3	28.8	–	–
Dividend yield	%	**4.7**		3.2	1.2	–	–
Price/earnings ratio [1)]		**10.00**		8.15	24.31	11.85	neg.
Development of share price							
Average trading price	€	**5.39**		8.11	4.51	4.49	5.16
Lowest trading price	€	**3.18**		6.61	2.08	2.06	3.37
Highest trading price	€	**8.26**		10.05	8.51	7.76	7.50
Trading price at the end of the period	€	**3.20**		7.74	8.51	2.73	4.77
Change during the period [4)]	%	**–58.7**		–9.0	211.3	–42.7	34.2
Change in the OMX Helsinki index during the period	%	**–8.0**		6.4	3.6	10.8	5.7
Market capitalization at the end of the period	€ million	**1,312**		3,223	3,541	1,138	1,987
Development in trading volume							
Trading volume [5)]	1,000 shares	**826,636**		1,021,607	955,682	1,345,515	695,235
In relation to weighted average number of shares [2)]	%	**201.1**		247.7	230.6	323.9	198.9
Adjusted average number of shares [6)]		**411,065,622**		412,363,204	414,411,287	415,473,976	349,558,854
Diluted average number of shares [6)]		**447,181,306**		450,247,639	414,411,287	415,473,976	349,558,854
Number of shares at the end of the period [6)]		**410,563,719**		412,671,549	413,860,600	415,489,308	415,426,724

1) Figures for 2017 have been restated due to IFRS 15 adoption. Figures for 2014–2016 have not been restated.

2) 2014 calculated based on the rights-issue-adjusted weighted average number of shares.

3) The Board of Directors' proposal to the Annual General Meeting.

4) 2014 calculated based on the adjusted comparable share prices.

5) Includes only Nasdaq Helsinki trading.

6) Excluding treasury shares.

Definitions of share-related key figures

$$\text{Earnings per share} = \frac{\text{Net result for the financial year attributable to the equity holders}}{\text{Adjusted average number of shares during the period}}$$

$$\text{Cash flow per share} = \frac{\text{Net cash generated from operating activities}}{\text{Adjusted average number of shares during the period}}$$

$$\text{Equity per share} = \frac{\text{Equity attributable to the equity holders}}{\text{Adjusted number of shares at the end of the period}}$$

$$\text{Dividend per share} = \frac{\text{Dividend for the financial year}}{\text{Adjusted number of shares at the end of the period}}$$

$$\text{Dividend payout ratio} = \frac{\text{Dividend for the financial year}}{\text{Net result for the financial year attributable to the equity holders}} \times 100$$

$$\text{Dividend yield} = \frac{\text{Dividend per share}}{\text{Adjusted trading price at the end of the period}} \times 100$$

$$\text{Price/earnings ratio (P/E)} = \frac{\text{Adjusted trading price at the end of the period}}{\text{Earnings per share}}$$

$$\text{Average trading price} = \frac{\text{EUR amount traded during the period}}{\text{Adjusted number of shares traded during the period}}$$

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

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Consolidated statement of income

€ million	Note	2018	2017 Restated
Sales	3, 4, 6	**6,872**	6,356
Cost of sales		**–6,398**	–5,627
Gross margin		**474**	729
Other operating income	6	**99**	58
Selling and marketing expenses		**–71**	–74
Administrative expenses		**–188**	–219
Research and development expenses		**–15**	–13
Other operating expenses	6	**–19**	–35
EBIT		**280**	445
Share of results in associated companies and joint ventures	14	**3**	9
Financial income and expenses	8		
Interest income		**3**	3
Interest expenses		**–70**	–92
Market price gains and losses		**–15**	–7
Other financial expenses		**–26**	–30
Total financial income and expenses		**–107**	–127
Result before taxes		**175**	327
Income taxes	9	**–45**	65
Net result for the financial year		**130**	392
Earnings per share for result attributable to the equity holders of the Company	10		
Earnings per share, EUR		**0.32**	0.95
Diluted earnings per share, EUR		**0.32**	0.90

Net result for the financial year is fully attributable to the equity holders of the company.

Comparable figures for 2017 have been restated due to adoption of IFRS 15 – Revenue from Contracts with Customers. For further information, see note 2 to the consolidated financial statements.

Consolidated statement of comprehensive income

€ million	Note	2018	2017 Restated
Net result for the financial year		**130**	392
Other comprehensive income			
Items that may be reclassified subsequently to profit or loss:			
Exchange differences on translating foreign operations			
Change in exchange differences		**24**	–83
Reclassification adjustments from other comprehensive income to profit or loss		**–**	–3
Available-for-sale financial assets	17	**–**	0
Cash flow hedges	20		
Fair value changes during the financial year		**4**	–1
Reclassification adjustments from other comprehensive income to profit or loss		**–4**	–1
Income tax relating to cash flow hedges	9	**–0**	1
Items that will not be reclassified to profit or loss:			
Remeasurements of defined benefit plans	25		
Changes during the financial year		**–7**	18
Income tax relating to remeasurements	9	**–1**	37
Financial assets at fair value through other comprehensive income	17		
Fair value changes during the financial year		**2**	–
Income tax relating to financial assets at fair value through other comprehensive income		**–1**	–
Share of other comprehensive income in associated companies and joint ventures	14	**–0**	–1
Other comprehensive income for the financial year, net of tax		**18**	–32
Total comprehensive income for the financial year		**148**	359

Total comprehensive income for the financial year is fully attributable to the equity holders of the company.

Comparable figures for 2017 have been restated due to adoption of IFRS 15 – Revenue from Contracts with Customers. For further information, see note 2 to the consolidated financial statements.

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32

Consolidated statement of financial position

€ million	Note	2018	2017 Restated	Jan 1, 2017 Restated
ASSETS				
Non-current assets				
Intangible assets	11, 13	**585**	535	504
Property, plant and equipment	12, 13	**2,659**	2,633	2,874
Investments in associated companies and joint ventures	14	**53**	73	67
Financial assets at fair value through other comprehensive income	17	**86**	–	–
Available-for-sale financial assets	17	**–**	68	53
Investments at fair value through profit or loss		**0**	0	1
Derivative financial instruments	20	**2**	1	–
Deferred tax assets	9	**247**	295	204
Defined benefit plan assets	25	**72**	70	45
Trade and other receivables	22	**2**	1	2
		3,706	3,675	3,750
Current assets				
Inventories	21	**1,555**	1,380	1,232
Investments at fair value through profit or loss		**13**	16	16
Derivative financial instruments	20	**15**	43	34
Trade and other receivables	22	**640**	660	688
Cash and cash equivalents	23	**68**	112	204
		2,292	2,212	2,174
Assets held for sale		**–**	–	67
TOTAL ASSETS		**5,998**	5,887	5,991

Comparable figures for 2017 have been restated due to adoption of IFRS 15 – Revenue from Contracts with Customers. For further information, see note 2 to the consolidated financial statements.

€ million	Note	2018	2017 Restated	Jan 1, 2017 Restated
EQUITY AND LIABILITIES				
Equity attributable to the equity holders of the Company				
Share capital		**311**	311	311
Premium fund		**714**	714	714
Invested unrestricted equity reserve		**2,103**	2,103	2,103
Other reserves		**5**	3	4
Retained earnings		**–382**	–410	–716
Total equity	24	**2,750**	2,721	2,416
Non-current liabilities				
Non-current debt	27	**798**	698	987
Derivative financial instruments	20	**1**	3	4
Deferred tax liabilities	9	**12**	10	22
Defined benefit and other long-term employee benefit obligations	25	**318**	337	356
Provisions	26	**65**	79	118
Trade and other payables	28	**35**	34	37
		1,229	1,160	1,525
Current liabilities				
Current debt	27	**511**	505	458
Derivative financial instruments	20	**20**	37	63
Provisions	26	**5**	14	15
Current tax liabilities		**12**	7	12
Trade and other payables	28	**1,471**	1,442	1,461
		2,019	2,005	2,008
Liabilities directly attributable to assets held for sale		**–**	–	43
TOTAL EQUITY AND LIABILITIES		**5,998**	5,887	5,991

Comparable figures for 2017 have been restated due to adoption of IFRS 15 – Revenue from Contracts with Customers. For further information, see note 2 to the consolidated financial statements.

Consolidated statement of cash flows

€ million	Note	2018	2017
Cash flow from operating activities			
Net result for the financial year [1)]		**130**	392
Adjustments for			
Taxes [1)]	9	**45**	–65
Depreciation and amortization	11, 12	**204**	216
Impairments	8, 11, 12, 13	**12**	2
Share of results in associated companies and joint ventures	14	**–3**	–9
Gain/loss on sale of intangible assets and property, plant and equipment	6	**–14**	–16
Gain/loss on sale of financial assets	8	**1**	0
Gain/loss on disposal of subsidiaries	5	**–**	–22
Interest income	8	**–1**	–1
Interest expense	8	**62**	85
Exchange rate differences		**1**	55
Other non-cash adjustments [1)]		**6**	13
		313	259
Change in working capital			
Change in trade and other receivables		**60**	–54
Change in inventories		**–145**	–222
Change in trade and other payables		**–27**	97
		–112	–180
Provisions, and defined benefit and other long-term employee benefit obligations paid		**–60**	–60
Interest and dividends received		**2**	3
Interest paid		**–54**	–78
Income taxes paid		**–5**	–8
Net cash from operating activities		**214**	328

[1)] Comparable figures restated due to IFRS 15 adoption.

€ million	Note	2018	2017
Cash flow from investing activities			
Acquired businesses, net of cash	5	**–10**	–
Investments in financial assets at fair value through other comprehensive income	17	**–16**	–
Investments in available-for-sale financial assets	17	**–**	–15
Purchases of property, plant and equipment	12	**–154**	–144
Purchases of intangible assets	11	**–76**	–27
Proceeds from the disposal of subsidiaries, net of cash and tax		**–**	90
Proceeds from sale of property, plant and equipment	12	**3**	21
Proceeds from sale of intangible assets	11	**19**	12
Other investing cash flow		**4**	–1
Net cash from investing activities		**–229**	–63
Cash flow before financing activities		**–14**	264
Cash flow from financing activities			
Dividends paid	24	**–103**	–41
Treasury share purchase	24	**–17**	–20
Borrowings of non-current debt		**329**	190
Repayments of non-current debt		**–240**	–541
Change in current debt		**7**	162
Repayments of finance lease liabilities		**–5**	–65
Other financing cash flow		**1**	–37
Net cash from financing activities		**–29**	–353
Net change in cash and cash equivalents		**–43**	–89
Cash and cash equivalents at the beginning of the financial year		**112**	204
Net change in cash and cash equivalents		**–43**	–89
Foreign exchange rate effect on cash and cash equivalents		**–1**	–3
Cash and cash equivalents at the end of the financial year	23	**68**	112

Consolidated statement of changes in equity

€ million	Note	Share capital	Premium fund	Invested unrestricted equity reserve	Other reserves	Fair value reserves	Cumulative translation differences	Remeasure-ments of defined benefit plans	Treasury shares	Other retained earnings	Total equity
Equity on Dec 31, 2016		**311**	**714**	**2,103**	**2**	**1**	**3**	**–135**	**–19**	**–564**	**2,416**
IFRS 15 restatement		–	–	–	–	–	–	–	–	–0	–0
Equity on Jan 1, 2017		**311**	**714**	**2,103**	**2**	**1**	**3**	**–135**	**–19**	**–564**	**2,416**
Net result for the financial year		–	–	–	–	–	–	–	–	392	392
Other comprehensive income		–	–	–	–	–1	–86	56	–	–1	–32
Total comprehensive income for the financial year		–	–	–	–	–1	–86	56	–	391	359
Transactions with equity holders of the Company											
Contributions and distributions											
Dividends paid	24	–	–	–	–	–	–	–	–	–41	–41
Share-based payments	18	–	–	–	–	–	–	–	13	–6	7
Treasury share purchase	24	–	–	–	–	–	–	–	–20	–	–20
Changes in ownership interests											
Quarto plate mill and pipe plant divestments	4	–	–	–	–	–	3	8	–	–11	–
Other		–	–	–	1	–	–	–	–	–1	–
Equity on Dec 31, 2017		**311**	**714**	**2,103**	**3**	**0**	**–81**	**–72**	**–26**	**–232**	**2,721**
IFRS 2 restatement		–	–	–	–	–	–	–	–	7	7
IFRS 9 restatement		–	–	–	–	–	–	–	–	–1	–1
Equity on Jan 1, 2018		**311**	**714**	**2,103**	**3**	**0**	**–81**	**–72**	**–26**	**–225**	**2,728**
Net result for the financial year		–	–	–	–	–	–	–	–	130	130
Other comprehensive income		–	–	–	–	2	24	–8	–	–0	18
Total comprehensive income for the financial year		–	–	–	–	2	24	–8	–	130	148
Transactions with equity holders of the Company											
Contributions and distributions											
Dividends paid	24	–	–	–	–	–	–	–	–	–103	–103
Share-based payments	18	–	–	–	–	–	–	–	3	–8	–5
Treasury share purchase	24	–	–	–	–	–	–	–	–17	–	–17
Equity on Dec 31, 2018		**311**	**714**	**2,103**	**3**	**2**	**–56**	**–80**	**–40**	**–207**	**2,750**

Total equity is fully attributable to the equity holders of the company.

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Notes to the consolidated financial statements

1. Corporate information

Outokumpu Oyj is a Finnish public limited liability company organized under the laws of Finland and domiciled in Helsinki, Finland. The parent company, Outokumpu Oyj, has been listed on the Nasdaq Helsinki since 1988. A copy of the consolidated financial statements is available at the Group's website www.outokumpu.com, from Outokumpu Oyj/Corporate Communications, P.O. Box 245, 00181 Helsinki, Finland or via e-mail at corporate.comms@outokumpu.com.

Outokumpu is the global leader in stainless steel and creates advanced materials that are efficient, long lasting and recyclable – helping to build a world that lasts forever. Stainless steel is an ideal material to create lasting solutions in demanding applications from cutlery to bridges, energy to medical equipment. Stainless steel is 100% recyclable, corrosion-resistant, maintenance-free, durable and hygienic. Outokumpu employs some 10,000 professionals in more than 30 countries.

In its meeting on February 7, 2019 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.

2. Accounting principles for the consolidated financial statements

Basis of preparation

These consolidated financial statements of Outokumpu have been prepared on going concern basis for the financial year 2018 covering the period from January 1 to December 31, 2018.

The consolidated financial statements have been prepared in accordance with International Financial Reporting Standards (IFRSs) as adopted by the European Union. The consolidated financial statements have been prepared in compliance with the IAS and IFRS standards as well as the SIC and IFRIC interpretations in force on December 31, 2018. 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.

As of January 1, 2018, Outokumpu has applied the following new and amended standards.

- **IFRS 15 Revenue from Contracts with Customers** (effective for financial years beginning on or after January 1, 2018) and **Amendments to IFRS 15 – Clarifications to IFRS 15 Revenue from Contracts with Customers** (effective for financial years beginning on or after January 1, 2018): IFRS 15 introduces a five-step model to determine when to recognize revenue and at what amount. Revenue is recognized when a company transfers control of goods to a customer either over time or at a point in time.

  Outokumpu has adopted IFRS 15 as of January 1, 2018, using the retrospective approach. The adoption had no material impact on the quantitative information or on the presentation of the consolidated financial statements. The accounting principles related to revenue from contracts with customers and the transition impacts are described later in this note.
- **IFRS 9 Financial Instruments** (effective for financial years beginning on or after January 1, 2018): IFRS 9 replaces the existing guidance in IAS 39 Financial Instruments: Recognition and Measurement. IFRS 9 includes revised guidance on the classification and measurement of financial instruments, including a new expected credit loss model for calculating impairment on financial assets, and the new general hedge accounting requirements. It carries forward the guidance on recognition and derecognition of financial instruments from IAS 39.

  Outokumpu has adopted IFRS 9 as of January 1, 2018. The adoption had no material impact on Outokumpu's consolidated financial statements. The accounting principles related to financial instruments and the transition impacts are described later in these financial statements. The comparable information related to financial instruments has not been restated to reflect IFRS 9 requirements.
- **Amendments to IFRS 2 Share-based Payments – Classification and Measurement of Share-based Payment Transactions** (effective for financial years beginning on or after January 1, 2018). The amendments clarify the accounting for certain types of arrangements. Three accounting areas are covered: measurement of cash-settled share-based payments; classification of share-based payments settled net of tax withholdings; and accounting for a modification of a share-based payment from cash-settled to equity-settled.

  The classification of share-based payments settled net of tax withholdings had an impact on Outokumpu's consolidated financial statements, and Outokumpu adopted these changes as of January 1, 2018. The accounting principles related to share-based payments and the transition impacts are described later in this note. The comparable information related to share-based payments has not been restated to reflect the amended IFRS 2 requirements.

Other new or amended standards and interpretations had no impact on Outokumpu's consolidated financial statements.

Adoption of new and amended IFRS standards and interpretations

Outokumpu has not yet applied the following new and amended standards and interpretations already issued. The Group will

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adopt 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 (* not yet endorsed by the European Union as at December 31, 2018).

- **IFRS 16 Leases** (effective for financial years beginning on or after January 1, 2019): The new standard replaces the current IAS 17 standard and related interpretations. IFRS 16 requires the lessees to recognize nearly all lease agreements as right-of-use assets and lease liabilities in the statement of financial position. The accounting model is similar as the finance lease accounting according to IAS 17. The exceptions relate to short-term contracts with a lease term of 12 months or less and to low value items.

  Outokumpu implements IFRS 16 on January 1, 2019 using the modified retrospective approach, where comparative financial information is not restated, but the transition impact is recognized to the balances of January 1, 2019. In transition, Outokumpu plans to use the following practical expedients allowed by the standard: (1) leases with remaining lease period of less than 12 months on January 1, 2019 are accounted as short-term leases, and thus excluded from the lease liability and right-of-use asset amounts recognized to the statement of financial position, and (2) initial direct costs of lease contracts already in place on December 31, 2018 are excluded from the right-of-use asset value.

  In transition on January 1, 2019, Outokumpu estimates to recognize lease liabilities and right-of-use assets of approximately EUR 125–130 million to its statement of financial position. On December 31, 2018 Outokumpu reported minimum operating lease payments of EUR 90 million. The difference between the amounts results from contracts that have not been classified as lease contracts under IAS 17 and have been accounted as service contracts, but will be under IFRS 16 considered as lease contracts. This impact is partly offset by the effect of discounting the future lease payments and exclusion of short-term lease contracts from the lease liability. A reconciliation between the amounts will be presented in connection with Outokumpu's first quarter 2019 financial information.

  Regarding contracts already in effect on December 31, 2018, Outokumpu estimates that the annualized impact from the change in the accounting policy on EBITDA is approximately EUR 20 million. Correspondingly, depreciation is estimated to increase by approximately the same amount. Increase in interest expenses is estimated not to be material.

- **IFRIC 23 Uncertainty over Income Tax Treatments** (effective for financial years beginning on or after January 1, 2019). IFRIC 23 adds to the requirements in IAS 12 Income Taxes by specifying how to reflect the effects of uncertainty in accounting for income taxes when it is unclear how tax law applies to a particular transaction or circumstance, or it is unclear whether a taxation authority will accept an entity's tax treatment. The interpretation is not assessed to have material impact on Outokumpu's consolidated financial statements.

- **Amendments to IAS 1 Presentation of financial statements** and **IAS 8 Accounting policies, changes in accounting estimates and errors*** (effective for financial years beginning on or after January 1, 2020): The amendments clarify the definition of materiality and use it consistently throughout IFRSs and the Conceptual Framework of Financial Reporting. The amendments are not expected to have material impact on Outokumpu's consolidated financial statements.

- **Annual Improvements to IFRSs (2015–2017 Cycle)*:** The changes are not assessed to have material impact on Outokumpu's consolidated financial statements.

  Other new or amended standards and interpretations that are not yet effective are not expected to have a material impact on Outokumpu's consolidated financial statements.

Management judgements and use of estimates

The preparation of the financial statements in accordance with IFRSs requires management to make judgements and make 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 monitored 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 assumptions. Management believes that the following accounting principles represent those matters requiring the exercise of judgement where a different opinion could result in significant changes to reported results.

Inventories

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 necessary to make the sale. The most important commodity price risk for Outokumpu is caused by fluctuation in nickel and other alloy prices. The majority of stainless steel sales contracts include an alloy surcharge clause, with the aim of reducing the risk arising from the time difference between raw material purchase and product delivery. However, the risk is significant because the delivery cycle in production is longer than the alloy surcharge mechanism provides for. Thus, only the price for the products to be sold in the near future is known. That is why a significant part of the future price for each product to be sold is estimated according to management's best knowledge in NRV calculations. Due to fluctuations in nickel and other alloy prices, the realized prices can deviate significantly from what has been used in NRV calculations on the closing date. See note 21.

Property, plant and equipment and intangible assets and impairments

Management estimates relate to carrying amounts and useful lives of assets as well as other underlying assumptions. Different assumptions and assigned lives could have a significant impact on the reported amounts. Management estimates in relation to goodwill relate to the estimation of the value in use of the cash-generating units to which goodwill has been allocated. The value in use calculation requires management to estimate the future cash flows expected to arise from the cash-generating units and a suitable discount rate in order to calculate present value. The future projections of cash flows include, among other estimates, projections of future prices and delivery volumes, production costs and maintenance capital expenditures.

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Carrying amounts of non-current assets are regularly reviewed to determine whether there is any evidence of impairment as described in these accounting principles. Preparation of the estimated future cash flows and determining the discount rates for the impairment testing requires management to make assumptions relating to future expectations (e.g. future product pricing, production levels, production costs, market supply and demand, projected maintenance capital expenditure and weighted average cost of capital). A pre-tax discount rate used for the net present value calculation of projected cash flows reflects the weighted average cost of capital. The key assumptions used in the impairment testing, including sensitivity analysis, are explained further in note 13.

Income taxes

Group operates and earns income in numerous countries and is subject to changing tax laws in multiple jurisdictions within the countries. Significant judgements are necessary in determining the worldwide income tax liabilities of the Group. Although management believes they have made reasonable estimates about the resolution of tax uncertainties, the final outcome of these uncertainties could have an effect on the income tax liabilities and deferred tax liabilities in the period.

At the end of reporting period, the management assesses whether the realization of future tax benefits is sufficiently probable to recognize deferred tax assets. This assessment requires judgement with respect to, among other things, benefits that could be realized 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 if estimates of taxable income and benefits from available tax strategies are lowered, or if current tax regulations are enacted that impose restrictions on the Group's ability to utilize future tax benefits. See note 9.

Fair values of non-derivative financial instruments

The fair value of financial instruments which cannot be determined based on quoted market prices and rates are based on different valuation techniques. The Group uses its judgement to select a variety of methods and make assumptions that are mainly based on market conditions existing at the end of each reporting period. Factors regarding valuation techniques and their assumptions could affect the reported fair values.

Relating to the valuation of Outokumpu's investment in Voimaosakeyhtiö SF, key management judgements relate to long-term market price for electricity, Fennovoima's capacity utilization rate, discount rates for cash flows and terminal value, and inflation rates for costs and electricity market price. See note 16.

Employee benefits

The present value of pension obligations is subject to actuarial assumptions which actuaries use in calculating these obligations. Actuarial assumptions include, among others, discount rate, the annual rate of increase in future compensation levels and inflation rate. The assumptions used are presented in note 25.

Provisions

The most significant provisions in the statement of financial position relate to restructuring programs and primarily include termination benefits to employees. The judgement applied mainly relates to the estimated amounts of termination benefits.

The Group has also made provisions for known environmental liabilities based on management's best estimate of the remediation costs. The precise amount and timing of these costs could differ significantly from the estimate. See note 26.

Principles of consolidation

Subsidiaries

The consolidated financial statements include the parent company Outokumpu Oyj and all those subsidiaries where over 50% of the subsidiary's voting rights are controlled directly or indirectly by the parent company, or the parent company is otherwise in control of the company at the end of the reporting period. 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.

Acquired or established subsidiaries are accounted for by using the acquisition method. The consideration transferred and the identifiable assets acquired and liabilities assumed in the acquired company are measured at fair value at the acquisition date. The consideration transferred includes any assets transferred by the acquirer, liabilities incurred by the acquirer to former owners of the acquiree and the equity interests issued by the acquirer. Any contingent consideration related to the business combination is measured at fair value at the acquisition date and it is classified as either liability or equity. Contingent consideration classified as liability is remeasured at its fair value at the end of each reporting period and the subsequent changes to fair value are recognized in profit or loss. Contingent consideration classified as equity is not subsequently remeasured. The consideration transferred does not include any transactions accounted for separately from the acquisition. All acquisition-related costs except costs to issue debt or equity securities, are recognized as expenses in the periods in which costs are incurred and services rendered.

Goodwill arising on an acquisition is recognized as the excess of the aggregate of the consideration transferred and the amount of any non-controlling interests or previously held equity interests in the acquiree, over the Group's share of the fair value of the identifiable assets acquired and liabilities assumed at the acquisition date. Non-controlling interest in the acquiree is measured acquisition-by-acquisition either at fair value or at value, which equals to the proportional share of the non-controlling interest in the identifiable net assets acquired. 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.

To those business combinations, which have taken place before January 1, 2010 accounting principles effective at that time have been applied.

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.

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Associated companies and joint ventures

Companies, where Outokumpu generally holds voting rights of 20–50% and in which Outokumpu otherwise has significant influence, but not control are included in the consolidated financial statements as associated companies. Associated companies are consolidated by using the equity method from the date that significant influence was obtained until it ceases.

The Group's share of the associated company's 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. When 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.

Joint ventures in which Outokumpu has contractually based joint control with a third party are also accounted for by using the equity method described above.

Non-current assets held for sale

Non-current assets or disposal groups are classified as held for sale if their carrying amounts are expected to be recovered primarily through sale rather than through continuing use. Classification as held for sale requires that the following criteria are met: the sale is highly probable, the asset or disposal group is available for immediate sale in its present condition subject to usual and customary terms, the management is committed to the sale and the sale is expected to be completed within one year from the date of classification.

Prior to classification as held for sale, the assets or assets and liabilities related to a disposal group in question are measured according to the respective IFRS standards. From the date of classification, non-current assets or a disposal group held for sale are measured at the lower of the carrying amount and the fair value less costs to sell, and the recognition of depreciation and amortization is discontinued.

Assets included in disposal groups but not in the scope of the measurement requirements of IFRS 5, as well as liabilities, are measured according to the related IFRS standards also after the date of classification.

Segment reporting

An operating segment is a component of the Group that engages in business activities from which it may earn revenues and incur expenses, and for which discrete financial information is available. Outokumpu's business is divided into four business areas, which are responsible for sales, profitability, production and supply chain management, and they are Outokumpu's operating segments under IFRS. The performance of the segments is reviewed based on segments' adjusted EBITDA, which is defined in these accounting principles. The review is done by the CEO who is Outokumpu's chief operating decision maker, on the basis of regular internal management reporting based on IFRS.

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 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 finance 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 effective portion of exchange differences arisen from instruments designated as hedges of the net investments in foreign operations is recognized in other comprehensive income.

For those subsidiaries whose functional and presentation currency is not the euro, the income and expenses for the statements of income and comprehensive income, and the items for statement of cash flows, are translated into euro using the average exchange rates of the reporting period. The assets and liabilities for 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 Group's other comprehensive income. Any goodwill arising on the acquisition of foreign operations and any fair value adjustments to the carrying amounts of assets and liabilities arising on the acquisition 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.

Revenue from contracts with customers

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 transfers of physical possession and risks and rewards related to the ownership of the goods accordingly. Consequently, the performance obligations related to sales of stainless steel and ferrochrome are satisfied at a point of time.

With customer deliveries following the "C" Incoterms, whereby the control of the goods transfers to the customer before the delivery, Outokumpu remains responsible for organizing the transportation of the goods to the customer. In these cases, the transportation service is a separate performance obligation, which is satisfied over time of the transportation. Before the IFRS 15 adoption, the revenues were fully allocated to the goods sold and recognized at a point of time. The impact of the accounting principle change is only minor as the revenue and the related freight cost are recognized at the same time. Additionally, the movement in the obligation to provide the transportation service from one period to another is not material. Outokumpu has concluded that it acts as a principal with regards to the transportation service performance obligation. In some cases, Outokumpu had earlier recognized the freights recharged from its customers as a credit to freight cost instead of sales. This accounting principle has been changed, the impact not being material.

Most of Outokumpu's revenue from contracts with customer is recognized at a point of time. Only revenue from transportation service 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 transportation service are invoiced together from the customer. Consequently, the uncertainty associated with the cash flows does not differ with respect to the timing of revenue recognition.

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. The earlier volume discount accrual practices were in line with the IFRS 15 guidelines. 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 used vary from advance payment to 90 days payment term, and they do not include any significant financing component.

Outokumpu also sells nickel warrants that relate to nickel sourced as part of a nickel supply agreement but is not needed for the production of stainless steel. Nickel warrant sales are recognized to revenue when the title to the material is transferred to the buyer.

Transition impact

In transition to IFRS 15, Outokumpu has restated its January 1, 2017 consolidated statement of financial position with the following impacts: contract liability of EUR 1 million related to the unperformed transportation service, impacting line trade and other payables; and accrued receivable related to purchased transportation of EUR 1 million impacting line trade and other receivables. The net impact of these items (net of tax) is recognized in retained earnings. The movement in the restated items impacted the following lines in the consolidated income statement of 2017: sales (impact of EUR 0 million), cost of sales (impact of EUR –0 million), and income taxes (impact of EUR 0 million). The reclassification of recharged freights from cost of sales to sales amounted to EUR 1 million in 2017.

In connection to the IFRS 15 adoption, Outokumpu reviewed the presentation of its revenue items in general, and concluded that certain items not related to Outokumpu's operations as a stainless steel and ferrochrome producer should be presented in other operating income rather than in sales. Consequently, items such as rental income are presented as other operating income going forward. The 2017 comparable figures are presented accordingly with a EUR –8 million impact on sales and EUR 8 million impact on other operating income.

Income taxes

Current and deferred income taxes are determined in accordance with IAS 12 Income Taxes on entity level to the extent an entity is subject to income taxation. The Group's income tax in the consolidated statement of income includes current income taxes of the Group companies based on taxable profit for the period, together with tax adjustments for previous periods and the change in deferred income taxes. In several countries (Germany, the UK, Italy, the Netherlands, Sweden and the USA) Outokumpu companies are included in income tax consolidation groups / 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 carrying amounts of assets and liabilities in the financial statements and the corresponding tax basis at the reporting date, as well as for unused tax losses or credits carry forward. Deferred tax assets are recognized for all deductible temporary differences to the extent that it is probable that future taxable profits will be available, against which deductible temporary differences can be utilized. A valuation allowance is recognized against a deferred tax asset if the realization of the related tax benefit 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 except to the extent that the deferred taxes arise from the initial recognition of an asset or liability in a transaction which is not a business combination and at the time of the transaction, affects neither accounting profit nor taxable profit.

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, except if the taxes are related to items of other comprehensive income or to transactions or other events recognized directly in equity, in which case the related income taxes are also recognized either in other comprehensive income or directly in equity, respectively.

Research and development costs

Research costs are expensed in the reporting period in which they are incurred. Development costs are capitalized when it is probable that the development project will generate future economic benefits for the Group, and certain criteria related to commercial and technological feasibility are met. These costs relate to the development of new or substantially improved products or production processes and to transformation projects with the target of developing and improving business processes. Capitalized development costs mainly comprise materials and supplies and direct labour costs as well as related overhead costs. Development costs recognized as expenses are not subsequently capitalized.

Subsequent to initial recognition, capitalized development costs are measured at cost less accumulated amortization and impairment losses. Capitalized development costs are amortized on a straight-line basis over their estimated useful lives which is generally five years. Recognition of amortization is commenced as the asset is ready for use. The accounting treatment of the government grants received for research and development activities is described below under Government grants.

Goodwill and other intangible assets

Goodwill arising on a business combination is recognized at the acquisition date at an amount representing the excess of the consideration transferred in an acquisition 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, if any. Goodwill is not amortized, but tested for

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impairment. Goodwill is measured at cost less accumulated impairment losses.

Intangible assets other than goodwill include capitalized development costs, patents, licenses and software. An intangible asset is recognized only if it is probable that the future economic benefits attributable to the asset will flow to the Group and the cost of the asset can be measured reliably. All other expenditure is expensed as incurred. Intangible assets are recognized initially at cost. After initial recognition, assets are measured at cost less accumulated amortizations and impairment losses if the intangible asset has a finite useful life. Cost comprises the purchase price and all costs directly attributable to bringing the asset ready for its intended use. Intangible assets 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 intangible asset are capitalized in the statement of financial position as part of the carrying amount of the asset, when it takes a substantial period of time to get the asset ready for its intended use.

Intangible assets are amortized on a straight-line basis over their expected useful lives. Assets tied to a certain fixed period are amortized over the contract term. Amortization periods used for intangible assets are the following:

Software	up to 10 years
Capitalized development costs	up to 10 years
Intangible rights	up to 20 years

Recognition of amortization is discontinued when the intangible asset is classified as held for sale. The estimated useful lives and residual values are reviewed at least at the end of each financial year. If they differ substantially from previous estimates, the useful lives are adjusted accordingly.

Gains and losses on disposal of intangible assets are included in other operating income and expenses.

Emission allowances

Emission allowances are intangible assets measured at cost. Allowances received free of charge are recognized at nominal value, i.e. at zero carrying amount. A provision to cover the obligation to return emission allowances is recognized at fair value at the end of the reporting period if the emission allowances held by the Group do not cover the actual emissions. The purchased emission allowance quotas recognized in intangible rights are derecognized against the actual emissions or, when the emission allowances are sold. The obligation to deliver allowances equal to emissions is recognized under other operating expenses. Gains from the sale of allowances are recognized as other operating income in the statement of income.

Property, plant and equipment

Property, plant and equipment acquired by the Group companies are measured at cost. The cost includes all expenditure directly attributable to the acquisition of the asset. Government grants received are deducted from the cost. Property, plant and equipment acquired in business combinations are measured at fair value at the acquisition date.

Borrowing costs (mainly interest costs) directly attributable to the acquisition or construction of an asset are capitalized in the statement of financial position as part of the carrying amount of the asset, when it takes a substantial period of time to get the asset ready for its intended use or sale.

Property, plant and equipment are carried in the statement of financial position at cost less accumulated depreciation and impairment losses. Property, plant and equipment are depreciated on a straight-line basis over their expected useful lives. Depreciation 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. Recognition of depreciation on an item of property, plant and equipment is discontinued when the item is classified as held for sale. Expected useful lives and residual values are reviewed at least at the end of each financial year and, if they differ significantly from previous estimates, the useful lives are revised accordingly.

Ordinary repairs and maintenance costs are expensed during the reporting period in which they are incurred. The cost of major renovations is included in the asset's carrying amount when it is probable that the Group will derive future economic benefits in excess of the originally assessed standard of performance of the existing asset and the cost can be reliably measured. Costs arising on such major renovations are accounted for as capital expenditure and depreciated on a straight-line basis over their estimated useful lives.

Gains and losses on sales and disposals of property, plant and equipment are determined by the difference between the received net proceeds and the carrying amount of the asset. Gains and losses on sales and disposals are presented in other operating income or expenses.

Government grants

Government or other grants are recognized as income on a systematic basis over the periods necessary to match them with the related costs which they are intended to compensate. Investment grants related to acquisitions of property, plant and equipment and intangible assets are deducted from the cost of the asset in question in the statement of financial position and recognized as income on a systematic basis over the useful life of the asset in the form of reduced depreciation or amortization expense.

Impairment of property, plant and equipment and intangible assets

Carrying amounts of non-current assets are regularly reviewed to determine whether there is any evidence of impairment. If any such evidence of impairment emerges, the asset's recoverable amount is estimated. Goodwill is tested at least annually, irrespective of whether there is any evidence of impairment.

The recoverable amount of an asset is the higher of fair value less costs to sell and value in use. For goodwill testing purposes, the recoverable amount is based on value in use which is determined by reference to discounted future net cash flows expected to be generated by the asset. In Outokumpu, goodwill is tested on operating segment level. The discount rate used is a pre-tax rate that reflects the current market view on the time value of money and the asset-specific risks. An impairment loss is the amount by which the carrying amount of an asset exceeds its recoverable amount. An impairment loss is recognized immediately in profit or loss. The estimated useful life of the asset that is subject to depreciation or amortization is also reassessed when an impairment loss is recognized.

A previously recognized impairment loss is reversed if there has been a change in the estimates used to determine the recoverable amount. However, the reversal must not cause that the adjusted carrying amount is higher than the carrying amount that would have been determined if no impairment loss had been recognized in prior years. Impairment losses recognized for goodwill are not reversed.

Leases

Group as a lessee

Lease agreements of property plant and equipment, in which the Group has substantially all the rewards and risks of ownership, are classified as finance leases. An asset acquired through finance lease is recognized as property, plant and equipment in the statement of financial position, within a group determined by the asset's characteristics, at the commencement of the lease term at the lower of fair value and the present value of minimum lease payments. Respective lease liabilities less finance charges are included in debt. Each lease payment is allocated between the finance charge and the reduction of the outstanding liability. The finance charge is allocated to each period during the lease term to produce a constant periodic rate of interest on the remaining balance of the liability. Property, plant and equipment acquired under finance lease contracts are depreciated over the shorter of the useful life of the asset and the lease term. If a sale and leaseback transaction results in a finance lease, any excess of sales proceeds over the sold asset's carrying amount will not be immediately recognized but deferred and amortized over the lease term.

At inception of significant other arrangements, the Group determines whether these arrangements are, or contain a lease component. At inception of an arrangement that contains a lease the Group separates payments and other consideration required by the arrangement into those for the lease and those for other elements. Lease accounting principles are applied to lease payments.

Leases of assets where the lessor retains substantially all the risks and benefits of ownership are classified as operating leases. Payments made under operating lease contracts are expensed on a straight-line basis over the lease terms.

Group as a lessor

Leases of property, plant and equipment where the Group has substantially transferred all the rewards and risks of ownership to the lessee are classified as finance leases. Assets leased out through such contracts are recognized as other receivables and measured at the lower of the fair value of the leased asset and the present value of minimum lease payments. Interest income from finance lease is recognized in the statement of income so as to achieve a constant periodic rate of return on the net investment in the finance lease.

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.

Financial instruments

Outokumpu has adopted IFRS 9 as of January 1, 2018. The adoption had no material impact on Outokumpu's consolidated financial statements. The comparable information related to financial instruments has not been restated to reflect IFRS 9 requirements. When transition to IFRS 9 impacted the accounting principles, the change and the previous practice is described in the following sections. In case the transition did not have an impact, this is not specifically stated.

Financial assets

The Group's financial assets are classified under IFRS 9 Financial Instruments standard as financial assets at fair value through profit or loss, financial assets at fair value through other comprehensive income and financial assets at amortized cost. The classification is based on Group's business model for financial assets and their contractual cash flow characteristics.

If an item is not measured at fair value through profit or loss, significant transaction costs are included in the initial carrying amount of the financial 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.

Financial assets at fair value through profit or loss

The category of financial assets at fair value through profit or loss includes derivatives, to which hedge accounting is not applied, as well as other financial items at fair value through profit or loss held for trading purposes. A financial asset, such as an investment in debt instrument or money market fund is classified in this category if it has been acquired with the main purpose of selling the asset within a short period of time. In some cases, also share investments can be classified in this category.

These financial assets 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 are recognized in profit or loss in the reporting period in which they are incurred. The changes in fair value of other financial items measured at fair value are recognized in market price gains and losses under financial income and expenses. Accounting of derivatives is described in more detail in section Derivatives and hedge accounting.

Financial assets at fair value through other comprehensive income

Financial assets at fair value through other comprehensive income includes share investments in listed and unlisted companies. The purchases and sales of these items are recognized at the trade date. These investments are included in non-current assets, unless the Group has the intention to dispose of the investment within 12 months from the reporting date.

Investments in shares are measured at fair value. The fair value measurement is based on quoted rates and market prices at the end of the reporting period, as well as on appropriate valuation techniques, such as recent transaction prices and cash flow discounting. These valuation techniques use observable market data when it is available but rely also on entity-specific estimates made by the Group. Fair value changes of share instruments measured at fair value are recognized in other comprehensive income and presented in equity within

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fair value reserve, net of tax. Dividends are recognized in profit or loss. When the shares are disposed, the accumulated changes in fair value are reclassified from fair value reserve to retained earnings. Under IAS 39 in connection of disposal or impairment of shares the accumulated changes in fair value were transferred from equity to profit or loss as reclassification adjustment.

Financial assets measured at amortized cost

Financial assets measured at amortized cost include non-derivative financial assets with fixed or determinable payments and are not quoted in active markets. This category includes trade and other receivables and cash and cash equivalents.

Financial assets measured at amortized cost 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.

Outokumpu uses factoring for working capital management. Factored trade receivables have been derecognized from the statement of financial position when the related risks and rewards of ownership have materially been transferred.

Outokumpu has adopted simplified model in assessing and recognizing expected credit losses on trade receivables. The calculation model is based on overdue statistics and counterparty-specific credit rating linked with loss probabilities for each rating. Impairment losses are recognized in selling and marketing expenses.

Transition impact

The new expected credit loss model resulted in impairment loss of trade receivables of EUR 1 million. This impact (net of tax) is recognized as a decrease of retained earnings on January 1, 2018.

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 and the risk of changes in value is low. Bank overdrafts are included in current liabilities in the statement of financial position.

Financial liabilities

Financial liabilities at fair value through profit or loss

The category of financial liabilities at fair value through profit or loss includes derivatives that do not meet the criteria of hedge accounting. Realized and unrealized gains and losses arising from changes in fair value of derivatives are recognized in profit or loss in the reporting period in which they are incurred.

Financial liabilities at amortized cost

Financial liabilities recognized at amortized cost include the loans, bonds, finance lease liabilities and trade and other payables. Loans and trade and other payables are recognized at the settlement date and measured initially at fair value. After initial recognition, they are carried at amortized cost using the effective interest rate method. Transaction costs are included in the original carrying amount. A financial liability (or part of the liability) is not derecognized until the liability has ceased to exist, that is, when the obligation identified in a contract has been fulfilled or cancelled or is no longer effective.

Significant costs related to revolving credit facilities are amortized over the expected loan term.

Convertible bonds

The Group classifies convertible bonds as compound instruments. The component parts of the bonds are 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 value of the bond as a whole and the fair value of the liability component. Transaction costs are allocated to the liability and equity components in proportion to their initial carrying amounts.

Subsequent to initial recognition, the liability component is measured at amortized cost using the effective interest method. The equity component of the bond is not remeasured to initial recognition except on conversion or expiry.

Derivative instruments and hedge accounting

Derivatives

Derivatives are initially recognized at fair value on the trade date, on which the Group becomes a contractual counterparty, and are subsequently measured at fair value. Gains and losses arising on fair value measurement are accounted for depending on the purpose of use of the derivative contract. The gains and losses arising from fair value changes of derivative contracts, to which hedge accounting is applied and which are effective hedging instruments, are presented congruent with the hedged item. Changes in fair value of derivative contracts not qualifying for hedge accounting are recognized in EBIT in other operating income and expenses. If a derivative is designated for financing activities, the gain or loss effects arising from the instrument are recognized within financial income and financial expenses.

The fair value measurement of derivatives is based on quoted market prices and rates as well as on discounted cash flows at the end of the reporting period. The fair values of currency, interest rate and metal options are determined by utilising commonly applied option valuation models, such as Black-Scholes-Merton model. Fair values of derivatives can in certain cases be based on valuations of external counterparties.

Hedge accounting

Outokumpu applies hedge accounting to certain currency derivatives which fulfil the IFRS 9 hedge accounting requirements. Outokumpu has estimated that all hedge accounting relationships under IAS 39 fulfil also IFRS 9 hedge accounting requirements and no changes to applying hedge accounting was made. In the beginning of each hedging arrangement, the Group documents the relationship between the hedging instrument and the hedged item, as well as the objectives of risk management and strategy of the hedging arrangement. 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 the degree to which changes in the fair value or cash flows of the hedged item that are attributable to a hedged risk are offset by changes in the fair value or cash flows of the hedging instrument. Under IAS 39 the hedging relationship was considered to be highly effective if the changes in fair values or cash flows

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of the hedging instrument offset the cash flow changes of the hedged item by 80–125%. Hedge accounting is discontinued when 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 in the period in which the hedged cash flows affect profit or loss. The fair value changes related to the ineffective portion of the hedging instrument are recognized immediately in profit or loss.

The Group has in earlier years hedged equities of the subsidiaries located outside the euro area against changes in exchange rates with the aim to reduce the effects of changes in exchange rates on the Group's equity. Accumulated fair value changes of qualifying financial instruments designated as hedges are reported in equity. They will be reclassified to profit or loss as part of the gain or loss on disposal if the corresponding foreign operation is sold or otherwise disposed of, partly or in full.

Measurement of fair values

A number of the Group's accounting policies and disclosures require the measurement of fair values, for both financial and non-financial assets and liabilities. Fair value hierarchy is based on the source of inputs used in determining fair values. 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, discounted future cash flows and, in respect of options, on valuation models. For assets and liabilities in level three, there is no reliable market source available and thus the fair value measurement cannot be based on observable market data. Therefore, the measurement methods are chosen so that the information available for the measurement and the characteristics of the measured objects can be adequately taken into account.

Inventories

Inventories are stated at the lower of cost and net realizable value. The cost of raw material is determined by actual cost defined as monthly weighted average. The cost of self-produced finished goods and work in progress comprises raw materials, direct labour, other direct costs and related production and procurement overheads, but excludes borrowing costs. Cost of purchased products includes all purchasing costs including direct transportation, handling and other costs. Net realizable value is the estimated selling price in the ordinary course of business, less the estimated costs of completion and the estimated costs necessary to make the sale. 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 financial year.

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.

Provisions and contingent liabilities

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 a reliable estimate can be made of the amount of the obligation. The Group's provisions mainly relate to restructuring plans, onerous contracts, environmental liabilities, litigation and tax risks. The amount recognized as a provision corresponds to the management's best estimate of the costs required to fulfil an existing obligation at the end of the reporting period. If part of the obligation may potentially be compensated by a third party, the compensation is recognized as a separate asset when it is virtually certain that the compensation will be received. Non-current provisions are discounted to net present value at the end of the reporting period using risk-free discount rates.

The cost of an item of property, plant and equipment also comprises the initial estimate of costs of dismantling and removing the item and restoring the site on which it is located at the end of the useful life of the item on a present value basis. Such a liability may exist for decommissioning a plant, rehabilitating environmental damage, landscaping or removing equipment. A provision presenting the asset retirement obligation is recognized in the same amount at the same date. Adjustments to the provision due to subsequent changes in the estimated timing or amount of the outflow of resources, or in the change in the discount rate are deducted from or added to the cost of the corresponding asset in a symmetrical manner. The costs will be depreciated over the asset's remaining useful life.

Environmental provisions are based on the interpretation of the effective environmental laws and regulations related to the Group at the end of the reporting period. Such environmental expenditure, that arises from restoring the conditions caused by prior operations are recognized as expenses in the period in which they are incurred. 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 employee termination benefits.

A contingent liability is a possible obligation that arises from past events and whose existence will be confirmed only by the occurrence of uncertain future events not wholly within the control of the entity. Such present obligation that probably does not require settlement of a payment obligation and the amount of which cannot be reliably measured is also considered to be a contingent liability. Contingent liabilities are disclosed in the notes to the financial statements.

Employee benefits

Post-employment and other long-term employee benefits

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 expenses 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

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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 plan assets are measured at fair value at the end of the reporting period. The liability recognized in the statement of financial position is the defined benefit obligation at the closing date less the fair value of 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.

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.

Share-based payment transactions

The share-based payments are settled net of tax withholdings, and according to the IFRS 2 amendment, they are accounted as fully equity-settled. The expense of the programs recognized over vesting periods is fully based on the grant date fair value. Before, the share-based payments were accounted partly as equity-settled and partly as cash-settled, and the cost of the cash-settled part was remeasured based on market conditions at the end of each reporting period.

Applicable statistical models are used in valuation. The impact of non-market-based vesting conditions is assessed at the end of each reporting period. The programs include maximum limits for the pay-outs and the limits have been taken into account in the valuation of the benefits.

Transition impact

In transition on January 1, 2018, the accrued liabilities for the cash-settled portion amounting to EUR 10 million on December 31, 2017 and the related deferred tax assets amounting to EUR 3 million have been recognized in retained earnings. Comparable figures for 2017 have not been restated.

EBIT and EBITDA

Outokumpu's EBIT is the net sum which is formed by adding other operating income to sales and then deducting the cost of purchase adjusted by change in the inventory and the cost of manufacture for own use, the cost of employee benefits, depreciation, amortization, any impairments, and other operating expenses. All other items of the statement of income are presented below EBIT. Exchange gains and losses and fair value changes of derivatives are included in EBIT, if they arise from business-related items. Otherwise they are recognized in financial items. EBITDA is formed by adding the deducted depreciation, amortization and impairments back into EBIT.

Adjusted EBITDA

Adjusted EBITDA is Outokumpu's main performance indicator in financial reporting, including segment reporting. Adjusted EBITDA presented in the notes to the consolidated financial statements excludes such material income and expense items which affect the comparability between periods because of their unusual nature, size or incidence resulting for example from group-wide restructuring programs or disposals of assets or businesses.

Dividends

The dividend proposed by the Board of Directors is not deducted from distributable equity until approved by the Annual General Meeting of Shareholders.

Earnings per share

Basic earnings per share is calculated by dividing the net result attributable to the equity holders of the company by the weighted average number of shares in issue during the period, excluding shares purchased by Outokumpu and held as treasury shares.

Diluted earnings per share is calculated by adjusting the weighted average number of ordinary shares outstanding with the assumption that convertible instrument is 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.

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3. Operating segment information

Outokumpu's business is divided into four business areas which are Europe, Americas, Long Products and Ferrochrome. In addition to the business area structure, Business Support Functions cover Finance, Communications and IR, Business Transformation and IT, Legal, Corporate Affairs and Compliance, Safety, Health and Environment, Internal Audit, and HR and Organization Development.

Business areas have responsibility for sales, profitability, production and supply chain management and they are Outokumpu's operating segments under IFRS. The performance of the segments is reviewed based on segment's adjusted EBITDA, which is defined in the accounting principles for the consolidated financial statements. The review is done regularly by the CEO based on internal management reporting which is based on IFRS. Below is a description of the activities of the four operating segments:

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 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.

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 integrated sites in the UK, Sweden and the US.

Ferrochrome produces charge grade of ferrochrome. The business area has a chrome mine in Kemi, Finland and ferrochrome smelter in Tornio, Finland.

						Reconciliation		
2018 € million	Europe	Americas	Long Products	Ferro-chrome	Operating segments total	Other operations	Eliminations	Group
External sales	4,169	1,670	521	197	6,557	314	–	6,872
Inter-segment sales	97	45	220	345	707	273	–980	–
Sales	4,267	1,715	740	542	7,264	587	–980	6,872
Adjusted EBITDA	248	–5	25	210	478	–4	11	485
Adjustments to EBITDA								
Gain on the sale of PPE and release of provisions related to EMEA restructuring	10	–	–	–	10	–	–	10
EBITDA	259	–5	25	210	489	–4	11	496
Depreciation and amortization	–114	–51	–6	–30	–201	–3	–	–204
Impairments	–0	–	–	–1	–2	–10	–	–12
EBIT	144	–56	18	179	286	–17	11	280
Share of results in associated companies and joint ventures	–	–	–	–	–	–	–	3
Financial income	–	–	–	–	–	–	–	3
Financial expenses	–	–	–	–	–	–	–	–110
Result before taxes	–	–	–	–	–	–	–	175
Income taxes	–	–	–	–	–	–	–	–45
Net result for the financial year	–	–	–	–	–	–	–	130
Assets in operating capital	2,922	1,357	331	772	5,383	275	–202	5,455
Other assets	–	–	–	–	–	–	–	296
Deferred tax assets	–	–	–	–	–	–	–	247
Total assets	–	–	–	–	–	–	–	5,998
Liabilities in operating capital	988	273	152	132	1,546	245	–188	1,604
Other liabilities	–	–	–	–	–	–	–	1,632
Deferred tax liabilities	–	–	–	–	–	–	–	12
Total liabilities	–	–	–	–	–	–	–	3,248
Operating capital	1,934	1,084	179	640	3,837	29	–15	3,851
Net deferred tax asset	–	–	–	–	–	–	–	235
Capital employed	–	–	–	–	–	–	–	4,086

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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 Group's production facilities in Finland and in Sweden, nickel procured under Group's sourcing contract that exceed the production needs, and internal commissions and services.

Outokumpu does not have individual significant customers as defined in IFRS 8.

2017 Restated € million	Europe	Americas	Long Products	Ferro-chrome	Operating segments total	Reconciliation Other operations	Eliminations	Group
External sales	4,074	1,512	405	127	6,118	237	–	6,356
Inter-segment sales	81	33	186	483	784	266	–1,050	–
Sales	4,156	1,546	591	610	6,903	503	–1,050	6,356
Adjusted EBITDA	404	21	16	217	658	–15	–12	631
Adjustments to EBITDA								
Gain on the quarto plate mill divestment	–	–	–	–	–	15	–	15
Gain on the sale of land in Sheffield	–	–	–	–	–	9	–	9
Gain on the pipe plant divestment	–	–	–	–	–	7	–	7
EBITDA	404	21	16	217	658	16	–12	663
Depreciation and amortization	–123	–52	–7	–29	–210	–6	–	–216
Impairments	–	–	–	–1	–1	–	–	–1
EBIT	281	–31	10	187	447	10	–12	445
Share of results in associated companies and joint ventures	–	–	–	–	–	–	–	9
Financial income	–	–	–	–	–	–	–	3
Financial expenses	–	–	–	–	–	–	–	–129
Result before taxes	–	–	–	–	–	–	–	327
Income taxes	–	–	–	–	–	–	–	65
Net result for the financial year	–	–	–	–	–	–	–	392
Assets in operating capital	2,883	1,382	241	752	5,258	253	–259	5,252
Other assets	–	–	–	–	–	–	–	340
Deferred tax assets	–	–	–	–	–	–	–	295
Total assets	–	–	–	–	–	–	–	5,887
Liabilities in operating capital	1,035	310	128	104	1,577	264	–234	1,608
Other liabilities	–	–	–	–	–	–	–	1,549
Deferred tax liabilities	–	–	–	–	–	–	–	10
Total liabilities	–	–	–	–	–	–	–	3,166
Operating capital	1,848	1,072	113	648	3,681	–11	–25	3,645
Net deferred tax asset	–	–	–	–	–	–	–	285
Capital employed	–	–	–	–	–	–	–	3,929

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32

4. Geographical information

€ million	Finland	Germany	Sweden	The UK	Other Europe	North America	Asia and Oceania	Other countries	Inter-area	Group
2018										
Sales by destination										
Europe	219	1,380	144	234	1,719	74	349	50	–	4,169
Americas	0	0	–	0	40	1,551	12	67	–	1,670
Long Products	0	66	47	9	161	195	42	–	–	521
Ferrochrome	10	10	22	–	118	–	37	–	–	197
Other operations	–	–	–	–	–	–	–	314	–	314
	230	1,456	214	243	2,038	1,820	440	431	–	6,872
Sales by origin	3,222	1,428	1,581	694	414	1,845	76	58	–2,446	6,872
Non-current assets	1,623	332	252	60	110	851	14	2	–	3,244
2017 Restated										
Sales by destination										
Europe	211	1,463	119	233	1,655	58	301	33	–	4,074
Americas	–	–	–	–	173	1,209	65	66	–	1,512
Long Products	–	32	33	8	116	191	25	–	–	405
Ferrochrome	10	12	22	–	40	–	43	–	–	127
Other operations	–	–	–	–	–	–	–	237	–	237
	222	1,507	174	242	1,984	1,458	434	336	–	6,356
Sales by origin	3,133	1,425	1,363	617	424	1,659	64	55	–2,384	6,356
Non-current assets	1,539	337	260	56	112	847	15	2	–	3,168

Sales by destination is presented for external sales.

Sales by origin and non-current assets are presented by the locations of the Group companies.

Non-current assets exclude investments in associated companies and joint ventures, financial instruments, deferred tax assets and defined benefit plan assets.

5. Acquisitions and divestments

Acquisitions in 2018

In June 2018, Outokumpu acquired full ownership of Fagersta Stainless AB, a wire rod mill in Sweden. Prior to the acquisition, Outokumpu held 50% of the Fagersta Stainless shares, and it was included in Outokumpu's consolidated financial statements with the equity method. Outokumpu reports Fagersta Stainless as part of the Long Products segment.

The cash consideration of the transaction was EUR 18 million of which EUR 14 million, representing 80% of the total consideration, was paid at closing with an additional 40% of the shares transferred to Outokumpu. The remaining 20% will be paid in the end of 2019 at which point Outokumpu will receive the final 10% of the shares. Outokumpu does not present non-controlling interest related to the 10% shareholding of Fagersta Stainless AB in its statement of financial position as the terms regarding the transfer of the shares to Outokumpu have already been agreed upon. The transaction price of the final 10% portion is reported in current trade and other payables.

The consideration, net of cash and cash equivalents acquired amounts to EUR 13 million. Assets acquired and liabilities assumed include non-current assets of EUR 9 million, current assets of EUR 75 million, non-current liabilities of EUR 2 million and current liabilities of EUR 47 million. The transaction resulted in no goodwill.

Divestments in 2018

Outokumpu did not have any divestments in 2018.

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6. Income and expenses

Timing of revenue recognition related contracts with customers

More than 97% of Outokumpu's revenue from contracts with customers is recognized at a point of time, and less than 3% is recognized over time. The revenue recognized over time relates to the performance obligation of organizing the transport of sold goods to the customer, and the period under which it is recognized is relatively short. Moreover, the sales of goods and transportation service are invoiced together from the customer. Consequently, the uncertainty associated with the cash flows do not differ with respect to the timing of revenue recognition.

Depreciation and amortization by function

€ million	2018	2017
Cost of sales	**–194**	–207
Administrative expenses	**–9**	–8
Research and development expenses	**–1**	–1
	–204	–216

Other operating income

€ million	2018	2017 Restated
Exchange gains and losses from foreign exchange derivatives	**1**	–
Market price gains and losses from commodity derivatives	**24**	–
Market price gains and losses from derivative financial instruments	**25**	–
Gains from disposal of subsidiaries	**–**	22
Gains on sale of intangible assets and property, plant and equipment	**15**	16
Insurance compensation	**32**	1
Other income items	**28**	19
	99	58

In 2018, Outokumpu received an insurance compensation regarding the property damage and business interruption at Tornio ferrochrome production in Finland in 2017.

Other operating expenses

€ million	2018	2017
Exchange gains and losses from foreign exchange derivatives	**–**	–9
Market price gains and losses from commodity derivatives	**–**	–14
Market price gains and losses from derivative financial instruments	**–**	–23
Impairments	**–12**	–1
Other expense items	**–6**	–10
	–19	–35

Adjustments to EBITDA and EBIT

€ million	2018	2017
Gain on the sale of PPE and release of provisions related to EMEA restructuring	**10**	–
Gain on the quarto plate mill divestment	**–**	15
Gain on the sale of land in Sheffield	**–**	9
Gain on the pipe plant divestment	**–**	7
Adjustments to EBITDA	**10**	31
Impairment related to Group's digital transformation project	**–10**	–
Adjustments to EBIT	**0**	31

In 2018, Outokumpu sold property, plant and equipment in Sweden relating to a site that had been closed earlier under the EMEA restructuring plan. Outokumpu also released provisions related to the site closures under the restructuring plan. These items amounted to a gain of EUR 10 million.

In 2018, Outokumpu adjusted the scope of its digital transformation program, which resulted in an impairment loss of EUR 10 million.

In 2017, Outokumpu divested its quarto plate mill in New Castle, Indiana, US resulting in a gain of EUR 15 million, surplus land in Sheffield, UK with a gain of EUR 9 million, and its pipe plant in Wildwood, Florida, US with a gain of EUR 7 million.

Auditor fees

PricewaterhouseCoopers

€ million	2018	2017
Audit	**–2.2**	–1.9
Audit-related services	**–0.1**	–0.1
Tax advisory	**–0.0**	–0.2
Other services	**–0.0**	–0.3
	–2.3	–2.5

PricewaterhouseCoopers Oy has provided non-audit services to Outokumpu in total of EUR 0.1 million during 2018. These services comprised of tax services and consultation in business transformation projects and sustainability reporting.

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32

7. Employee benefit expenses

€ million	2018	2017
Wages and salaries	**–541**	–549
Termination benefits	**–6**	–1
Social security costs	**–81**	–73
Post-employment and other long-term employee benefits		
Defined benefit plans	**–2**	–7
Defined contribution plans	**–39**	–43
Other long-term employee benefits [1]	**–1**	13
Expenses from share-based payments	**1**	–16
Other personnel expenses	**–6**	–7
	–676	–684

[1] 2017 includes EUR 14 million from reversal of long-service remuneration obligations in Germany where the terms of the arrangement were changed, and the arrangement no longer contains long-term employee benefit obligations, but the benefits are current in nature. The accruals related to the current benefits have been reported under wages and salaries. See note 25.

Profit-sharing bonuses based on the Finnish Personnel Funds Act of EUR 2 million were paid in 2018 (2017: none).

More information on employee benefits for key management can be found in note 31 and in Corporate Governance chapter Remuneration.

8. Financial income and expenses

€ million	2018	2017
Interest income	**3**	3
Interest expenses		
Debt at amortized cost	**–45**	–65
Factoring expenses	**–10**	–8
Finance lease arrangements	**–9**	–12
Derivatives	**–0**	–2
Interest expense on defined benefit and other long-term employee benefit obligations	**–5**	–5
Interest expenses	**–70**	–92
Capitalized interests	**3**	1
Impairment of financial assets	**0**	–1
Loss from the sale of financial asset	**–1**	–0
Fees related to committed credit facilities	**–11**	–14
Other fees	**–17**	–15
Other financial expenses	**–26**	–30
Exchange gains and losses		
Derivatives	**–21**	83
Cash, loans and receivables	**8**	–97
Other market price gains and losses		
Derivatives	**2**	2
Other	**–4**	5
Market price gains and losses	**–15**	–7
Total financial income and expenses	**–107**	–127

Other fees consist of expenses related to the redemption of the notes due 2021.

Exchange gains and losses in the consolidated statement of income

€ million	2018	2017
In sales	**15**	–17
In purchases [1]	**–29**	37
In other income and expenses [1]	**1**	–9
In financial income and expenses [1]	**–13**	–15
	–26	–3

[1] Includes exchange gains and losses on elimination of intra-group transactions.

Exchange gains and losses include EUR 20 million of net exchange loss on derivative financial instruments (2017: EUR 74 million net exchange gains) of which a gain of EUR 1 million has been recognized in other operating expenses and a loss of EUR 21 million in financial items.

9. Income taxes

Income taxes in the consolidated statement of income

€ million	2018	2017 Restated
Current taxes	**–4**	–6
Deferred taxes	**–41**	71
	–45	65

Reconciliation of income taxes at statutory tax rate in Finland and income taxes recognized in the consolidated income statement

€ million	2018	2017 Restated
Result before taxes	**175**	327
Hypothetical income taxes at Finnish tax rate of 20% on consolidated result before tax	**–35**	–65
Difference between Finnish and foreign tax rates	**–2**	–6
Tax effect of non-deductible expenses and tax exempt income	**–11**	–2
Reassessment of the values of deferred tax assets [1]	**5**	139
Taxes for prior years	**–2**	–1
Tax effect of tax rate changes and other changes in tax laws	**–1**	0
Income taxes in the consolidated statement of income	**–45**	65

[1] Includes EUR 34 million tax benefit due to recognition of previously non-recognized deferred tax assets (2017: EUR 125 million).

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32

Deferred tax assets and liabilities

€ million	Jan 1, 2018 Deferred tax assets	Jan 1, 2018 Deferred tax liabilities	Movements Recognized in profit or loss	Movements Recognized in other comprehensive income	Movements Translation differences	Movements Acquired subsidiaries	Dec 31, 2018 Deferred tax assets	Dec 31, 2018 Deferred tax liabilities
Intangible assets	6	–4	–0	–	0	–	7	–4
Property, plant and equipment	28	–195	–16	–	–1	–1	29	–214
Inventories	19	–10	–0	–	–0	–	20	–12
Net derivate financial assets	5	–17	3	–0	–0	–	4	–13
Other financial assets	4	–7	–22	–1	–0	–	–16	–10
Defined benefit and other long-term employee benefit obligations	53	–33	23	–1	0	–	75	–33
Other financial liabilities [1]	78	–3	–2	–	0	–0	88	–14
Provisions	27	–22	–3	–	–0	1	22	–20
Tax losses and tax credits	352	–	–23	–	–3	–	326	–
	572	–290	–41	–1	–4	–1	**555**	**–320**
Offset	–280	280					–308	308
Deferred taxes in the statement of financial position [1]	292	–10					**247**	**–12**

[1] In transition to amended IFRS 2 transition on Jan 1, 2018, the accrued liabilities for the cash-settled portion of share-based payments amounting to EUR 10 million on Dec 31, 2017 and the related deferred tax assets amounting to EUR 3 million have been recognized in retained earnings. Comparable figures for 2017 have not been restated.

€ million	Jan 1, 2017 Deferred tax assets	Jan 1, 2017 Deferred tax liabilities	Movements Recognized in profit or loss	Movements Recognized in other comprehensive income	Movements Translation differences	Movements Disposed subsidiaries	Dec 31, 2017 Deferred tax assets	Dec 31, 2017 Deferred tax liabilities
Intangible assets	7	–3	–2	–	–	–	6	–4
Property, plant and equipment	25	–209	17	–	0	–	28	–195
Inventories	15	–8	2	–	0	–	19	–10
Net derivate financial assets	9	–10	–11	1	–	–	5	–17
Other financial assets	4	–5	–2	–	–	–	4	–7
Defined benefit and other long-term employee benefit obligations	18	–23	–13	37	–0	–	53	–33
Other financial liabilities	80	–2	2	–	–0	–	81	–3
Provisions	22	–19	2	–	–	–	27	–22
Tax losses and tax credits	282	–	74	–	–4	–	352	–
	461	–280	71	38	–4	–	575	–290
Offset	–257	257					–280	280
Deferred taxes in the statement of financial position	204	–22					295	–10

Deferred taxes have been reported as a net balance of those Group companies that file a consolidated tax return, or that may otherwise be consolidated for current tax purposes.

Aggregate deferred taxes recognized in equity through other comprehensive income

€ million	2018	2017
Fair value reserves	**–1**	0
Net investment hedging	**–4**	–4
Remeasurements of the net defined benefit liability	**52**	53
	47	49

Tax losses carried forward

€ million	2018	2017
Expire in 5 years	**186**	230
Expire later than in 5 years	**1,941**	1,993
Never expire	**1,272**	1,173
	3,400	3,396

As of December 31, 2018 tax loss carry forwards amount to EUR 3,400 million (2017: EUR 3,396 million), of which EUR 487 million (2017: EUR 630 million) in Finland, EUR 320 million (2017: EUR 347 million) in Sweden, EUR 1,864 million (2017: EUR 1,625 million) in the US and EUR 476 million (2017: EUR 498 million) in Germany. Deferred tax assets are recognized only to the extent that the utilization of related tax benefits is considered probable. In the determination of whether the utilization is probable, all positive and negative factors, including prospective results, are taken into consideration in order to estimate whether sufficient taxable income will be generated to realize deferred tax assets. These estimates can change depending on the future course of events. As of December 31, 2018 tax attributes of the Outokumpu Group for which no deferred tax asset has been recognized amount to EUR 1,940 million (2017: EUR 1,922 million). In 2018, due to increased probability of future tax benefits, mainly in the UK, previously non-recognized deferred tax assets of EUR 34 million in total were recognized. In 2017, corresponding recognition of previously non-recognized deferred tax assets in Germany amounted to EUR 160 million. The recognition decision in both 2018 and 2017 has been impacted by positive earnings before taxes and positive taxable results. No deferred tax liabilities were recorded on undistributed profits on foreign subsidiaries, as such profits are not to be distributed in the foreseeable future.

10. Earnings per share

	2018	2017
Result attributable to the equity holders of the Company, € million [1]	**130**	392
Weighted average number of shares, in thousands	**411,066**	412,363
Diluted average number of shares, in thousands	**447,181**	450,248
Earnings per share for result attributable to the equity holders of the Company [1]		
Earnings per share, EUR	**0.32**	0.95
Diluted earnings per share, EUR	**0.32**	0.90

[1] Comparable figures restated due to IFRS 15 adoption.

11. Intangible assets

€ million	Goodwill	Other intangible assets [1]	Total
Historical cost on Jan 1, 2018	491	276	767
Translation differences	–2	–2	–3
Additions	–	77	77
Disposals	–	–20	–20
Reclassifications	–	1	1
Historical cost on Dec 31, 2018	**489**	**332**	**821**
Accumulated amortization and impairment on Jan 1, 2018	–24	–207	–232
Translation differences	2	2	4
Amortization	–	–8	–8
Accumulated amortization and impairmenton Dec 31, 2018	**–22**	**–214**	**–236**
Carrying value on Dec 31, 2018	**467**	**118**	**585**
Carrying value on Jan 1, 2018	467	68	535
Historical cost on Jan 1, 2017	493	241	734
Translation differences	–2	–4	–6
Additions	–	42	42
Disposals	–	–24	–24
Reclassifications [2]	–	21	21
Historical cost on Dec 31, 2017	491	276	767
Accumulated amortization and impairment on Jan 1, 2017	–26	–204	–229
Translation differences	1	3	5
Amortization	–	–7	–7
Accumulated amortization and impairmenton Dec 31, 2017	–24	–207	–232
Carrying value on Dec 31, 2017	467	68	535
Carrying value on Jan 1, 2017	467	37	504

[1] Other intangible assets include land-use rights, emission allowances, capitalized development costs, patents, licenses and software.

[2] Reclassifications in 2017 include construction work in progress related to intangible assets, which was earlier presented in the corresponding item of property, plant and equipment. These assets relate mainly to Group's digital transformation project.

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32

During 2018, borrowing costs amounting to EUR 2 million were capitalized on investment projects (2017: EUR 1 million). Total interest capitalized on December 31, 2018 was EUR 3 million (Dec 31, 2017: EUR 1 million). Outokumpu determinates separate capitalization rates for each quarter. The average rate used during 2018 was 2.7%.

Intangible assets mainly comprise acquired assets.

Emission allowances

Outokumpu had seven active sites operating under EU's Emissions Trading Scheme (ETS) in 2018. These include the production plants in Tornio, Finland; Avesta, Degerfors, Fagersta and Nyby in Sweden; Sheffield in the UK; as well as Krefeld together with Dillenburg in Germany.

The pre-verified carbon dioxide emissions under ETS were approximately 1.0 million tonnes in 2018 (2017: 0.95 million tonnes). For the trading period 2013–2020, all relevant Outokumpu sites have applied free emission allowances according to efficiency-based benchmarks and historical activity. Preliminary allocation for year 2019 is estimated to be some 1.0 million tonnes. Considering the Group's operations and the Group's current emission allowance position, the overall amount of allowances is foreseen to be sufficient for compliance. Position is frequently monitored and optimized according to the definitions set in corporate risk policies. See note 19 for information on the management of the emission allowance price risk.

12. Property, plant and equipment

€ million	Land	Mine properties	Buildings	Machinery and equipment	Other tangible assets	Advances paid and construction work in progress	Total
Historical cost on Jan 1, 2018	135	66	1,233	4,440	128	158	6,160
Translation differences	1	–	2	–4	–1	1	–2
Additions	0	2	2	34	4	146	189
Acquired subsidiaries	0	–	1	4	1	3	9
Disposals	–0	–	–	–22	–0	–0	–23
Reclassifications	–	2	6	59	4	–73	–2
Historical cost on Dec 31, 2018	**136**	**71**	**1,243**	**4,511**	**137**	**235**	**6,332**
Accumulated depreciation and impairment on Jan 1, 2018	–14	–27	–639	–2,768	–77	–3	–3,527
Translation differences	0	–	4	25	0	0	30
Disposals	–	–	3	19	0	0	22
Reclassifications	–	–	–	–1	–	1	0
Depreciation	–0	–7	–43	–140	–4	–0	–195
Impairments	–	–	–	–2	–	–	–2
Accumulated depreciation and impairment on Dec 31, 2018	**–14**	**–33**	**–676**	**–2,868**	**–80**	**–2**	**–3,673**
Carrying value on Dec 31, 2018	**121**	**37**	**567**	**1,644**	**56**	**233**	**2,659**
Carrying value on Jan 1, 2018	121	40	594	1,672	52	155	2,633

During 2018, EUR 1 million of borrowing costs were capitalized on investment projects (2017: EUR - million). Total interest capitalized on December 31, 2018 was EUR 25 million (Dec 31, 2017: EUR 26 million). Outokumpu determines separate capitalization rates for each quarter. The average rate used during 2018 was 1.5%.

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32

€ million	Land	Mine properties	Buildings	Machinery and equipment	Other tangible assets	Advances paid and construction work in progress	Total
Historical cost on Jan 1, 2017	139	66	1,251	4,641	129	125	6,351
Translation differences	–3	–	–28	–154	–0	–5	–190
Additions	–	0	4	21	0	106	130
Disposals	–2	–	–4	–10	–0	–	–17
Disposed subsidiaries	–	–	–2	–33	–	–0	–35
Reclassifications	–	–	13	–24	0	–68	–80
Historical cost on Dec 31, 2017	135	66	1,233	4,440	128	158	6,160
Accumulated depreciation and impairment on Jan 1, 2017	–14	–21	–603	–2,763	–73	–4	–3,477
Translation differences	0	–	5	54	0	0	60
Disposals	–	–	0	9	–0	–	9
Disposed subsidiaries	–	–	2	25	–0	–	27
Reclassifications	–	–	–	62	–	1	63
Depreciation	–0	–6	–43	–155	–4	–0	–209
Impairments	–	–	–	–1	–	–	–1
Accumulated depreciation and impairment on Dec 31, 2017	–14	–27	–639	–2,768	–77	–3	–3,527
Carrying value on Dec 31, 2017	121	40	594	1,672	52	155	2,633
Carrying value on Jan 1, 2017	126	45	648	1,878	56	122	2,874

Assets leased by finance lease agreements

€ million	Land	Buildings	Machinery and equipment	Total
Historical cost	28	1	100	129
Accumulated depreciation	–1	–0	–52	–53
Carrying value on Dec 31, 2018	**27**	**1**	**49**	**76**
Historical cost	28	1	106	136
Accumulated depreciation	–1	–0	–50	–51
Carrying value on Dec 31, 2017	27	1	56	85

13. Impairment of intangible assets and property, plant and equipment

Intangible assets and property, plant and equipment by operating segment

	Goodwill		Other intangible assets		Property, plant and equipment	
€ million	**2018**	2017	**2018**	2017	**2018**	2017
Europe	**343**	344	**5**	5	**1,197**	1,240
Americas	**–**	–	**2**	1	**829**	824
Long Products	**9**	9	**3**	4	**79**	63
Ferrochrome	**114**	114	**0**	0	**537**	487
Other operations	**–**	–	**109**	58	**17**	18
	467	467	**118**	68	**2,659**	2,633

Impairment testing

Impairment testing is carried out on operating segment level, which are the Group's cash-generating units. Europe represents 74% of the total goodwill and 45% of the total property, plant and equipment of the Group, Americas represents 31% of the total property, plant and equipment of the Group, and Ferrochrome represents 24% of the total goodwill and 20% of the total property, plant and equipment of the Group. During the year 2018, impairment needs were assessed on a quarterly basis.

The recoverable amounts of the cash-generating units are based on value-in-use calculations which are prepared using discounted cash flow projections. Key assumptions used in the value-in-use calculations are discount rate, terminal value growth rate, average global growth in end-use consumption of stainless steel and base price development. The values assigned to the key assumptions are conservative, and cash flow projections are based on the plans approved by the management for 2019–2021 after which cash flows are further projected for a period of 3 years before calculating the terminal value.

Discount rate is 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. The pre-tax WACC used for both Europe and Ferrochrome is 7.2%, and for Americas 9.8% (2017: 9.5%). In 2017, Europe and Ferrochrome belonged to the same operating segment and were tested together with pre-tax WACC of 8.0%.

In the terminal value, growth rate assumptions of 0.5% (2017: 0.5%) for Europe and Ferrochrome, and 1.0% (2017: 1.0%) for Americas are used. Management believes these to be prudent based on current economic circumstances, although historical growth rates and forecasts of independent market analysts indicate higher long-term growth rates.

Growth rate assumption used for stainless steel deliveries is conservative, and generally lower than independent analysts' view on long-term market development. Base price forecast is based on conservative assumptions. In addition, committed investments and expected cost savings have been included in the cash flow projections.

The estimated recoverable amount of Europe exceeds its carrying amount by approximately EUR 3,946 million. Increase of 11.6 percentage points in after-tax WACC would cause the recoverable amount to equal the carrying amount. Also, 54% decrease in EBITDA would cause the recoverable amount to equal the carrying amount. Terminal growth rate of 0% would not lead to impairment.

The estimated recoverable amount of Americas exceeds its carrying amount by approximately EUR 51 million. Increase of 0.3 percentage points in after-tax WACC would cause the recoverable amount to equal the carrying amount. Also, 3% decrease in EBITDA would cause the recoverable amount to equal the carrying amount. Terminal growth rate of 0% would lead to an impairment loss of EUR 58 million.

The estimated recoverable amount of Ferrochrome exceeds its carrying amount by approximately EUR 1,765 million. Increase of 13.0 percentage points in after-tax WACC would cause the recoverable amount to equal the carrying amount. Also, 58% decrease in EBITDA would cause the recoverable amount to equal the carrying amount. Terminal growth rate of 0% would not lead to impairment.

As a result of the performed impairment test to Group's cash-generating units, no impairment losses were recognized in 2018 or 2017. However, impairment losses of EUR 10 million related to Group's digital transformation project and EUR 2 million related to asset obsolence in Ferrochrome and Europe were recognized in 2018. (2017: an impairment loss of EUR 1 million on property, plant and equipment in Ferrochrome due to asset obsolence).

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32

14. Investments in associated companies and joint ventures

Outokumpu has the following associated companies and joint ventures which are all equity accounted. Based on the amounts reported in the Group's consolidated financial statements, it is concluded that the investments are immaterial.

Associated companies

	Domicile	Ownership, %
OSTP Holding Oy	Finland	49
Rapid Power Oy	Finland	33
Manga LNG Oy	Finland	45

Summarized financial information on associated companies

€ million	**2018**	2017
Carrying value of investments in associated companies	**53**	53
Group's share of total comprehensive income	**5**	4

Joint ventures

In June 2018, Outokumpu acquired full ownership of Fagersta Stainless AB, previously a joint venture of Outokumpu in Sweden. See note 5 for more information on the acquisition. The net result and the other comprehensive income from January 1, 2018 to June 30, 2018 have been included in Outokumpu's consolidated financial statements with the equity method. The Group's share of total comprehensive income reported in the table below includes also the fair valuation impact related to the valuation of Outokumpu's original 50% share prior the acquisition.

Summarized financial information on joint ventures

€ million	**2018**	2017
Carrying value of investments in joint ventures	**–**	20
Group's share of total comprehensive income	**–2**	5

15. Carrying values and fair values of financial assets and liabilities by measurement category

The Group has adopted IFRS 9 standard as of January 1, 2018 and the following table reconciles the carrying amounts of financial instruments under IAS 39 to the carrying amounts under IFRS 9.

	Measurement category		Carrying amount on Jan 1, 2018		
Financial assets	IAS 39	IFRS 9	Original	New	Difference
Investments in equity	Available for sale	FVOCI	68	68	–
Other investments	Investments at fair value through profit or loss	FVPL	17	17	–
Trade and other receivables	Amortized cost	Amortized cost	598	597	–1
Hedge accounted derivatives	FVOCI	FVOCI	–	–	–
Derivatives held for trading	FVPL	FVPL	44	44	–
Cash and cash equivalents	Amortized cost	Amortized cost	112	112	–
Financial liabilities					
Debt	Amortized cost	Amortized cost	1,203	1,203	–
Trade and other payables	Amortized cost	Amortized cost	1,310	1,310	–
Hedge accounted derivatives	FVOCI	FVOCI	2	2	–
Derivatives held for trading	FVPL	FVPL	38	38	–

FVOCI = Fair value through other comprehensive income

FVPL = Fair value through profit or loss

The Group has adopted simplified model in assessing expected credit losses on trade receivables which caused a difference between carrying amounts under IAS 39 and IFRS 9.

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2018 € million	Measured at Amortized cost	Fair value through other comprehensive income	Fair value through profit or loss	Carrying amount	Fair value
Non-current financial assets					
Investments in equity	–	86	–	86	86
Other investments	–	–	0	0	0
Trade and other receivables	2	–	–	2	2
Derivatives held for trading	–	–	2	2	2
Current financial assets					
Other investments	–	–	13	13	13
Trade and other receivables	578	–	–	578	578
Hedge accounted derivatives	–	0	–	0	0
Derivatives held for trading	–	–	15	15	15
Cash and cash equivalents	68	–	–	68	68
	648	86	30	764	764
Non-current financial liabilities					
Non-current debt	798	–	–	798	814
Derivatives held for trading	–	–	1	1	1
Current financial liabilities					
Current debt	511	–	–	511	511
Trade and other payables	1,349	–	–	1,349	1,349
Hedge accounted derivatives	–	0	–	0	0
Derivatives held for trading	–	–	19	19	19
	2,658	0	21	2,678	2,694

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2017 € million	Category in accordance with IAS 39	Measured at Amortized cost	Cost	Fair value through other comprehensive income	Fair value through profit or loss	Carrying amount	Fair value
Non-current financial assets							
Available-for-sale financial assets	a)	–	64	4	–	68	68
Investments at fair value through profit or loss	c)	–	–	–	0	0	0
Trade and other receivables	b)	1	–	–	–	1	1
Derivatives held for trading	b)	–	–	–	1	1	1
Current financial assets							
Investments at fair value through profit or loss	c)	–	–	–	16	16	16
Trade and other receivables	b)	597	–	–	–	597	597
Cash and cash equivalents	b), c)	112	–	–	–	112	112
Derivatives held for trading	d)	–	–	–	43	43	43
		710	64	4	61	838	838
Non-current financial liabilities							
Non-current debt	f)	698	–	–	–	698	802
Derivatives held for trading	d)	–	–	–	3	3	3
Current financial liabilities							
Current debt	f)	505	–	–	–	505	505
Trade and other payables	f)	1,310	–	–	–	1,310	1,310
Hedge accounted derivatives	e)	–	–	2	–	2	2
Derivatives held for trading	d)	–	–	–	35	35	35
		2,513	–	2	38	2,553	2,657

Categories in accordance with IAS 39:

a) Available-for-sale financial assets
b) Loans and receivables
c) Financial assets at fair value through profit or loss
d) Derivatives held for trading
e) Hedge accounted derivatives
f) Other financial liabilities

The comparable information for 2017 has not been restated to reflect IFRS 9 requirements.

Adoption of IFRS 9 had no material impact on consolidated financial statements.

16. Fair value hierarchy of financial assets and liabilities

2018		Fair value			
€ million	Carrying amount	Level 1	Level 2	Level 3	Total
Financial assets measured at fair value					
Financial assets at fair value through other comprehensive income	86	0	–	86	**86**
Investments at fair value through profit or loss	13	13	–	0	**13**
Hedge accounted derivatives	0	–	0	–	**0**
Derivatives held for trading	17	–	17	–	**17**
	116	13	17	86	**116**
Financial assets not measured at fair value					
Non-current trade and other receivables	2	–	2	–	**2**
Financial liabilities measured at fair value					
Derivatives held for trading	21	–	21	–	**21**
Financial liabilities not measured at fair value					
Non-current debt	798	–	814	–	**814**

2017		Fair value			
€ million	Carrying amount	Level 1	Level 2	Level 3	Total
Financial assets measured at fair value					
Available-for-sale financial assets	4	0	–	4	4
Investments at fair value through profit or loss	17	16	–	0	17
Derivatives held for trading	44	–	44	–	44
	65	17	44	4	65
Financial assets not measured at fair value					
Non-current trade and other receivables	1	–	1	–	1
Financial liabilities measured at fair value					
Hedge accounted derivatives	2	–	2	–	2
Derivatives held for trading	38	–	38	–	38
	40	–	40	–	40
Financial liabilities not measured at fair value					
Non-current debt	698	–	802	–	802

In 2018, investment in Voimaosakeyhtiö SF is included in financial assets at fair value through other comprehensive income. It was not included in the table as available-for-sale financial assets in 2017, because according to IAS 39 it was measured at cost.

A major part of financial assets at fair value through other comprehensive income at hierarchy level 3 relate to investments in unlisted energy producing companies. Valuation model of energy producing companies is based on discounted cash flow model, which takes into account the market prices of electricity, 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. expected purchase price of electricity under the Mankala principle, expected project completion date and cost of debt in Fennovoima Oy. The fair value of Voimaosakeyhtiö SF shares is highly sensitive to the valuation parameters and especially to long-term market price of electricity, Fennovoima's capacity utilization rate, discount rates for cash flows and the terminal value, inflation rates for costs and market price of electricity, and project completion date.

Long-term market price for electricity for the time when the plant is expected to be commissioned has been estimated by the management, and the estimate assumes an increase compared to the current market price level. However, the long time periods to complete the 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. In general, the project risk is considered high with the estimated completion of the project in 2028, and the range of potential fair values is wide.

The fair value of non-current debt is determined by using discounted cash flow method and taking into consideration the market credit spread applied for Outokumpu. The fair value of non-current trade and other receivables is determined by discounted cash flow method taking into account the credit risk of the counterparty. The carrying amounts of current financial assets and current financial liabilities not measured at fair value are reasonable estimates of their fair value.

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17. Financial assets at fair value through other comprehensive income

€ million	2018	2017
Carrying value on Jan 1	**68**	–
Additions	**16**	–
Fair value changes	**2**	–
Carrying value on Dec 31	**86**	–

Available-for-sale financial assets

€ million	2018	2017
Carrying value on Jan 1	–	53
Additions	–	15
Fair value changes	–	0
Carrying value on Dec 31	–	68

In IFRS 9 transition, the measurement category of former available-for-sale financial assets was changed to financial assets at fair value through other comprehensive income. For more information, see notes 2 and 15.

Fair value reserve in equity

€ million	2018	2017
Fair value	**86**	68
Cost	**80**	64
Fair value reserve before tax	**6**	4
Deferred tax liability	**–1**	–1
Fair value reserve	**5**	3

Financial assets at fair value through other comprehensive income consists of equity securities 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 and the Group considers this classification to be relevant. Materially all equity securities are unlisted. Investments include EUR 79 million holding in Voimaosakeyhtiö SF providing ownership to Fennovoima Oy and EUR 6 million of holdings in other energy companies in which Outokumpu does not have control, joint control or significant influence. During 2018 Outokumpu invested further EUR 16 million in Voimaosakeyhtiö SF. Information on the valuation of this investment is presented in note 16.

18. Share-based payment plans

During 2018, Outokumpu's share based payment programs included Performance Share Plan 2012 (Plans 2016–2018, 2017–2019 and 2018–2020), Restricted Share Pool Program 2012 (Plans 2016–2018, 2017–2019 and 2018–2020) and Matching Share Plans for the CEO and other key management. Share-based programs are part of the Group's incentive and commitment-building system for key employees. The objective of the programs is to retain, motivate and reward selected employees for good performance which supports Outokumpu's strategy.

The Performance Share Plan 2015–2017 ended and after deductions for applicable taxes, altogether 413,896 shares were delivered to 92 persons. Regarding the Restricted Share Pool Program plan 2015–2017, after deductions for applicable taxes, in total 12,139 shares were delivered to 4 participants based on the conditions of the plan. Outokumpu used its treasury shares for the reward payments.

In December 2017, the Board of Directors approved the commencement of the new plan (plan 2018–2020) of the Performance Share Plan as of the beginning of 2018. At the end of the reporting period 141 persons participated in the plan and they had been allocated in total 1,459,600 gross shares (payout at maximum performance level). The plan's earnings criterion is Outokumpu's return on operating capital compared to a peer group.

In December 2017, the Board approved the commencement of the new plan (plan 2018–2020) of Restricted Share Pool Program as of the beginning of 2018. Restricted share grants are approved annually by the CEO on the basis of the authorization granted by the Board of Directors, with the exception of any allocations to Leadership Team members, which will be approved by the Board of Directors. At the end of the reporting period 46 persons participated in the plan and they have been allocated in total 106,500 gross shares.

In December 2015, the Board of Directors approved the commencement of Matching Share Plan for the CEO at the beginning of 2016, according to which the CEO was entitled to receive in total 1,157,156 gross shares including taxes on the condition that he personally invested EUR 1 million into Outokumpu shares by February 20, 2016. The matching shares will be delivered in four equal instalments at the end of 2016, 2017, 2018 and 2019, respectively. The CEO is required to keep at least all the shares he acquired and the first vesting portion, i.e. 25% of the net amount of the received matching shares throughout his service with Outokumpu. In December 2018, the Board of Directors approved the delivery of the third reward share tranche to the CEO from the Matching Share Plan. After deduction for applicable taxes, the net number of shares delivered to the CEO was 185,077.

In April 2016, the Board of Directors approved the commencement of Matching Share Plan for the management for the years 2016–2020. According to the plan, the participants invested 30–120% of their annual gross base salary into Outokumpu shares by December 31, 2016. Outokumpu will match each share acquired by the participant with two gross shares from which applicable taxes will be deducted and the remaining net number of shares will be delivered in four equal instalments at the end of 2017, 2018, 2019 and 2020, respectively. In order to receive the matching shares, the participants are required to keep all the shares they have acquired until the vesting of each matching share tranche. In 2018, the Board of Directors approved the delivery of the second reward tranches from the plan. After deduction for applicable taxes, the net number of shares delivered was 281,058. At the end of the reporting period 29 persons participated in the plan.

In December 2018, the Board of Directors approved the commencement of plan 2019–2021 of the Performance Share Plan 2012 and the Restricted Share Pool Program 2012 as of the beginning of 2019.

The total estimated value of the share-based payment plans is EUR 9 million on December 31, 2018. This value is recognized as an expense in the statement of income during the vesting periods.

Detailed information of the share-based incentive programs can be found in Outokumpu's home page www.outokumpu.com.

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Share-based payments included in employee benefit expenses

€ million	2018	2017
Equity-settled share-based payment transactions	**1**	–7
Cash-settled share-based payment transactions	**–**	–9
	1	–16
Total carrying amount of liabilities for cash-settled arrangements on Dec 31	**–**	10

According to the amendment in IFRS 2 Share-based payments, Outokumpu accounts all its share-based payment plans as equity-settled as of January 1, 2018.

The general terms and conditions of the share-based incentive programs

	Performance Share Plan		
Grant date	Feb 10, 2016	Feb 10, 2017	Feb 2, 2018
Vesting period	Jan 1, 2016–Dec 31, 2018	Jan 1, 2017–Dec 31, 2019	Jan 1, 2018–Dec 31, 2020
Share price at grant date	2.11	9.80	6.61
Vesting conditions			
Non-market	Outokumpu's return on operating capital compared to a peer group, and Outokumpu's gearing in 2018	Outokumpu's return on operating capital compared to a peer group	Outokumpu's return on operating capital compared to a peer group
Other relevant conditions	A salary-based limit for the maximum benefits	A salary-based limit for the maximum benefits	A salary-based limit for the maximum benefits
Exercised	In shares and cash	In shares and cash	In shares and cash

	Restricted Share Pool Program		
Grant date	Dec 9, 2016	April 26, 2017	June 1, 2018
Vesting period	Jan 1, 2016–Dec 31, 2018	Jan 1, 2017–Dec 31, 2019	Jan 1, 2018–Dec 31, 2020
Share price at grant date	7.81	9.80	5.76
Vesting 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
Exercised	In shares and cash	In shares and cash	In shares and cash

	Matching Share Plan for the CEO	Matching Share Plan for the management
Grant date	Dec 17, 2015	April 27, 2016
Vesting period	Jan 1, 2016–Dec 31, 2019	Jan 1, 2017–Dec 31, 2020
Share price at grant date	2.50	5.35 [1]
Vesting conditions	Personal investment of EUR 1 million into Outokumpu shares; requirement to keep at least the personal investment and the first vesting portion, i.e. 25% of the net amount of the received matching shares throughout service with Outokumpu. If the CEO's service contract is terminated without any fault or negligence attributable to him, all the shares not yet delivered will vest at the expiry of the CEO agreement provided that the ownership requirement for the CEO is fulfilled.	Personal investment of 30–120% of annual gross base salary into Outokumpu shares; requirement to keep the personal investment until the vesting of each matching share tranch; continuation of employment until the matching shares are delivered.
Exercised		In shares and cash

[1] Incentive fair value at the grant date reported as the average fair value based on the share purchase dates.

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19. Financial risk management, capital management and insurances

The main objectives of financial risk management are to reduce earnings volatility and to secure acceptable liquidity in order to avoid financial distress. Other objectives include reduction of cash flow volatility and maintaining debt-to-equity ratio as well as leverage according to set targets. The objective of capital management is to secure the ability to continue as a going concern and to optimize cost of capital in order to enhance value to shareholders. 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, process and other main principles of risk management. The Board of Directors oversees risk management on a regular basis and the Chief Financial Officer is responsible for implementation and development of financial risk management.

Financial risks consist of market, country, credit, liquidity and refinancing risks. Subsidiary companies 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. Treasury and Risk Management function (Treasury) is responsible for managing foreign exchange, metal, interest rate, liquidity and refinancing risk as well as emission allowance price risk. Credit risk management has been mostly centralized to Global Business Services and Treasury coordinates Group's credit control. Supply Chain function is responsible for managing electricity and fuel price risks.

Treasury sources all Group's global insurances. The most important insurance lines are property damage and business interruption (PDBI), liability, marine cargo and credit risk. Group's captive insurance company Visenta Försäkringsaktiebolag in Sweden can be used in insurance management.

Exposure to financial risk is identified in connection with the risk management process. This approach aims to secure that any emerging risk is identified early and that each significant risk is described, quantified, managed and communicated properly. Eventually, the impacts of key financial risks are quantified in terms of changes to income, free cash flow, net debt and equity.

Market risk

Market risk is caused by changes in foreign exchange and interest rates, interest margins as well as metal, energy, emission and security prices. These price changes may have a significant impact on Group's earnings, cash flow and capital structure. Outokumpu uses matching strategies and derivative contracts to partially mitigate the above-mentioned impacts of market price changes. Hedge accounting is applied selectively. The derivatives, for which hedge accounting is not applied, are used to reduce impacts of market price changes on earnings and/or cash flows related to business or financing activities. The use of non-hedge-accounted derivatives may cause timing differences between derivative gains/losses and the earnings impact of the underlying exposure.

Stainless steel business is cyclical, which may result in significant changes in the underlying exposures to different market risk factors, especially US dollar and nickel price. Consequently, the cyclicality may lead to significant changes in the amounts of derivate contracts. Nominal amounts and fair values of derivatives are presented in note 20. Sensitivity of financial instruments to market prices is described in the table below.

Foreign exchange rate risk

A major part of the Group's sales is in euros and US dollars. In this context, the local currency denominated production costs in the UK and Sweden cause foreign exchange risk. Foreign exchange cash flow risk related to firm commitments, e.g. price fixed sales and purchase orders, is hedged whereas forecasted and probable cash flows are not typically hedged but can be hedged selectively. The main dollar cash flow risk origins from ferrochrome operations as a consequence of chrome being priced in US dollars. Another significant dollar cash flow risk is embedded in sales margins due to dollar-linked stainless scrap purchase discounts.

Fair value risk consists of currency denominated accounts receivable, accounts payable, debt, cash, loan receivables and commodity derivatives. Outokumpu aims to hedge most of the identified fair value risk with derivative contracts. Internal US dollar and Swedish krona denominated financing causes significant fair value exchange rate risk, which is hedged with forward contracts and, if possible, with matching external debt. The Group's fair value foreign exchange position is presented in a more detailed level in the table.

Sensitivity of financial instruments to market risks

	Dec 31, 2018		Dec 31, 2017	
€ 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	–	+0/–0	–
+/–10% change in EUR/SEK exchange rate	–14/+17	–3/+3	–6/+7	–6/+7
+/–10% change in nickel price in USD	–2/+4	–	–1/+2	–
+/–10% change in propane price in USD	–1/+1	–	–	–
+/–1% parallel shift in interest rates	–10/+10	–	+0/–0	–

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 24–36%. With +/–30% change in dollar denominated price, the effect in profit or loss is about EUR –3/+14 million for nickel derivatives.

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Outokumpu's net income and net investment translation risk is mainly in US dollars, Swedish kronas and British pounds. Based on the policy this risk can be hedged selectively and in 2018 there were no hedges related to net income or net investment exposures. The effective portion of gains (EUR 17 million, net of tax) on earlier financial years' net investment hedges is recognized in other comprehensive income.

Changes in currency rates cause translation differences in debt and have therefore impact on Group's capital structure. The largest debt translation risk relates to Swedish krona and US dollar denominated internal loans. In the third quarter 2018, the translation risk related to internal dollar financing was significantly reduced by increasing equity of Business Area Americas.

Interest rate risk

The Group's interest rate risk is monitored as cash flow risk i.e. impact of interest rate changes on net interest expenses, and fair value risk i.e. impact of interest rate changes on fair value of monetary assets and liabilities. In order to manage the balance between risk and cost in an optimal way, significant part of debt has effectively short-term interest rate as a reference rate. This approach typically helps to reduce average interest rate of debt while it may also provide some mitigation against a risk of adverse changes in business environment, which tends to result to decrease in short-term interest rates.

Swedish krona, euro and US dollar have substantial contribution to the overall interest rate risk. Approximately 40% (2017: 44%) 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, 2018 was 5.8% (Dec 31, 2017: 6.7%). Interest rate position is presented on a more detailed level in the table. Outokumpu is also exposed to variation of credit margins, mainly in regards of any new financing, e.g. in connection with issue of commercial papers and any new long-term debt.

Foreign exchange positions of EUR-based companies

	Dec 31, 2018				Dec 31, 2017			
€ million	SEK	USD	GBP	Other	SEK	USD	GBP	Other
Trade receivables and payables	15	–246	16	11	23	–182	16	8
Loans and bank accounts [1]	545	270	–7	–29	534	581	–33	–12
Derivatives	–515	–1	–21	16	–479	–361	1	1
Net position	**46**	**22**	**–12**	**–3**	78	38	–16	–3

Foreign exchange positions of SEK-based companies

	Dec 31, 2018				Dec 31, 2017			
€ million	EUR	USD	GBP	Other	EUR	USD	GBP	Other
Trade receivables and payables	67	–27	–9	18	55	–36	–33	5
Loans and bank accounts [1]	29	14	2	3	20	16	5	3
Derivatives	–284	–116	–1	–63	–162	–18	21	–18
Net position	**–188**	**–129**	**–8**	**–42**	–87	–39	–8	–10

[1] Includes cash and cash equivalents, loan receivables and debt.

Currency distribution and re-pricing of outstanding net debt

	Dec 31, 2018				
€ million Currency	Net debt [1]	Derivatives [2]	Average rate, % [1]	Duration, year [3]	Rate sensitivity [4]
EUR	1,264	–737	4.1	3.1	–0.6
SEK	21	549	2.2	0.0	5.7
USD	–19	241	1.7	0.1	2.2
Others	–25	–44	1.8	0.0	–0.7
	1,241	**9**			**6.6**

	Dec 31, 2017				
€ million Currency	Net debt [1]	Derivatives [2]	Average rate, % [1]	Duration, year [3]	Rate sensitivity [4]
EUR	1,152	–1,059	4.6	25.0	–6.3
SEK	–3	530	–1.8	0.2	5.3
USD	–20	553	1.7	0.2	5.3
Others	–38	–36	0.9	0.0	–0.7
	1,091	–12			3.5

[1] Includes cash and cash equivalents, loan receivables 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.

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Changes in interest rates impact pension plan asset and liability values. The net liability of defined benefit plans and other long-term employee benefits was EUR 245 million at year end and therefore increase in long-term interest rates would typically decrease the net liability of these plans.

Metal and energy price risk

Outokumpu uses a substantial amount of raw materials and energy for which prices are determined in regulated markets, such as London Metal Exchange and Nasdaq Commodities. Timing differences between alloy metal purchases and pricing of stainless steel; changes in inventory levels; and the capability to pass on price changes in raw materials to end-product prices affect metal risk. Furthermore, the volumes and discounts related to stainless scrap purchases have major impact on alloy metal price risk. Since there is no established financial market for chrome this risk is categorized as business risk. In 2018, Outokumpu undertook a project to further improve its metal risk management. The outcomes of the project were presented to management and the board.

Apart from chrome, changes in nickel price is the most important metal price risk for Outokumpu. Significant part of stainless steel sales contracts includes an alloy surcharge clause, with the aim of reducing the risk arising from the timing difference between alloy metal purchase and stainless steel delivery. Outokumpu's nickel position consists of price fixed purchase orders, inventories of nickel-containing materials and price fixed sales orders. Based on financial risk policy the identified nickel price risk, excluding risk related to base stock, must be fully hedged. Nickel in base stock is hedged partially and in 2018 the hedging ratio has been between zero and sixty percent. Nickel forwards and options are used to manage impacts of nickel price changes on earnings, whereas efficient working capital management helps to reduce cash flow variations caused by metal prices. Outokumpu's exposure to iron price is much similar to that of nickel, except for the value of the exposure being lower and secondly, Outokumpu produces some iron in connection with the Kemi chromite mining. Financial hedging of iron has been considered but so far systematic alloy metal hedging has been limited to hedging of nickel price.

Outokumpu's main production sites in Europe are participating in the EU Emissions Trading Scheme (ETS). The amounts of realized and forecasted carbon dioxide emissions and granted emission allowances are monitored at Group level. Emission allowance price risk is managed with the aim of securing and optimizing the cost of compliance for the current trading period. In certain situations, the market price of power can be partially based on price of carbon emissions. This indirect exposure to emission prices can be significant for Outokumpu due to energy intensive processes using power and fuels. At year end, Outokumpu had adequate amount of emission allowances to cover all forecasted needs of the current emission trading period, ending in 2020.

Outokumpu manages energy price risk centrally. The Group has hedged propane price risk by keeping inventories and partly by fixing purchase prices in its supply contracts. Power price risk is reduced with fixed price supply contracts and partial ownerships in power utilities. In late 2018, Outokumpu started using liquified natural gas at its Tornio site, thus reducing the need of propane.

Security price risk

Outokumpu has investments in equity and fixed income securities. On December 31, 2018, the biggest investments were in Voimaosakeyhtiö SF (equity investment of EUR 79 million) and OSTP Holding Oy (investment in associated company of EUR 28 million).

The investment in Voimaosakeyhtiö SF provides Outokumpu with appr. 14% indirect stake in the Fennovoima Oy nuclear power plant project. This stake gives Outokumpu access to estimated 170 MW power capacity once the project has been completed. Information on the valuation of the investment is presented in note 16.

The captive insurance company Visenta Försäkringsaktiebolag has investments totaling EUR 13 million in highly rated and liquid fixed income securities as well as fixed income and equity funds in order to optimize return for assets and to manage its risk prudently.

Outokumpu has a well-funded defined benefit pension plan in the UK. This plan has assets approximately EUR 0.5 billion, most of which have been invested in fixed income securities and a relatively large portion in equities. Changes in security prices would therefore impact the net asset reported on this plan. For more information please see note 25.

Country and credit risk

Outokumpu's sales have been 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 90% 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, 2018, the maximum exposure to credit risk of trade receivables was EUR 482 million (2017: EUR 493 million). The portion of unsecured receivables has varied between 9–17% of all trade receivables. For significant part of trade receivables Outokumpu uses factoring, which transfers most risks and rewards to the buyer of the receivables. At the end of the year, most of the receivables were generated by a large number of customers and there were only a few risk concentrations. Age analysis of accounts receivables is presented in note 22.

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 the derivative transactions, Outokumpu prefers to have ISDA framework agreements in place. Exposure to country risk is monitored and at year-end such risk included e.g. Argentina due to Outokumpu's local and cross-border business activities there. In 2018, the country risk profile of Argentina continued to deteriorate, and the value of peso declined significantly, which caused some adverse impacts for Outokumpu as well.

Liquidity and refinancing risk

Outokumpu raises most of its debt centrally. The Group seeks to reduce liquidity and refinancing risk by having sufficient amount of cash and long-term committed credit lines available, by having balanced maturity profile of debt and by diversifying sources of funding. Daily liquidity is optimized by issuance of commercial papers and by doing currency swaps. Efficient cash and liquidity management is also reducing liquidity risk. Finance plans are prepared and reviewed regularly with a focus on

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forecasted cash flow, projected funding requirements, planned funding transactions during the forecast period 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 debt-to-equity and leverage ratios are key measurements in the planning.

In 2018, good profitability and positive cash flow from operating activities allowed continued focus on cost of debt optimization and weighted average maturity (WAM) of debt. Finance cost reduction efforts included e.g. call of the notes due 2021 (EUR 202.5 million) and cancellation of a EUR 90 million bilateral credit facility, which had its final maturity in the first quarter 2019. WAM was positively impacted by issuing EUR 250 million new notes due 2024 and by agreeing new EUR 80 million seven-year pension loan, having no repayments during the first two years. Furthermore, in December 2018 Outokumpu agreed a long-term EUR 120 million loan facility which can be used to finance the ongoing investment to deepen the Kemi mine. The facility can be drawn from April 2019 until early 2022, where after repayments will begin. The final maturity of the facility is in 2030.

Net debt development

€ million	2018	2017
Net cash flow from operating activities	**214**	328
Net cash flow from investing activities	**–229**	–63
Cash flow before financing activities	**–14**	264
Dividends paid	**–103**	–41
Treasury shares purchased	**–17**	–20
Other financing cash flow	**1**	–39
Cash flow impact on net debt	**–134**	164
Opening net debt	**1,091**	1,242
Cash flow impact on net debt	**134**	–164
Change in net debt, non- cash	**16**	12
Closing net debt	**1,241**	1,091

Moody's corporate family rating was B1 during the whole year and the new secured notes were rated by Moody's at Ba3. Both ratings have stable outlook.

The main funding programs and credit facilities are: a committed revolving credit facility of EUR 650 maturing in May 2021; a committed Kemi mine investment facility of EUR 120 million having its final maturity in 2030; and an uncommitted Finnish commercial paper program totalling EUR 800 million. The revolving credit facility, a bilateral bank loan and the notes due in 2024 are secured by a comprehensive security package, which includes pledges on real estate in Tornio and Calvert, pledges of shares of certain material subsidiary companies and guarantees issued by many of the material subsidiary companies. Outokumpu and its secured lenders have signed an intercreditor agreement in February 2014, when the security package was originally created. More information on liquidity and refinancing risk is presented in the following table.

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Contractual cash flows

2018 € million	Balance Dec 31	2019	2020	2021	2022	2023	2024–
Bonds	249	–	–	–	–	–	250
Convertible bond	238	–	250	–	–	–	–
Loans from financial institutions	57	45	6	4	1	–	–
Pension loans	220	3	47	55	59	16	40
Finance lease liabilities	85	3	3	51	0	0	28
Commercial papers	460	460	–	–	–	–	–
Trade payables	1,200	1,200	–	–	–	–	–
Interest payments and facility charges		47	40	29	22	14	126
Currency derivatives	5						
Outflows		2,292	–	–	–	–	–
Inflows		–2,287	–	–	–	–	–
Interest derivatives	–6	–1	–1	–1	–1	–1	–1
Metal derivatives	5	4	1	–	–	–	–
Other derivatives	0	0	–	–	–	–	–
		1,766	**346**	**138**	**82**	**29**	**443**

On December 31, 2018, the Group had cash and cash equivalent amounting to EUR 68 million and committed available long-term credit facilities totaling EUR 650 million. In addition, the EUR 120 million long-term facility will become available for financing the Kemi mine investment.

2017 € million	Balance Dec 31	2018	2019	2020	2021	2022	2023–
Bonds	201	–	–	–	203	–	–
Convertible bonds	229	–	–	250	–	–	–
Loans from financial institutions	35	17	6	6	4	1	–
Pension loans	171	6	16	56	50	43	–
Finance lease liabilities	90	5	3	3	51	0	29
Commercial papers	477	477	–	–	–	–	–
Trade payables	1,162	1,162	0	–	–	–	–
Interest payments and facility charges		49	44	43	25	3	120
Currency derivatives	–9						
Outflow		2,990	–	–	–	–	–
Inflow		–2,998	–	–	–	–	–
Interest derivatives	3	1	1	0	0	–	–
Metal derivatives	8	9	–1	–	–	–	–
Other derivatives	–3	–3	–	–	–	–	–
		1,714	70	358	332	48	149

On December 31, 2017, the Group had cash and cash equivalent amounting to EUR 112 million and committed available long-term credit facilities totaling EUR 727 million.

Capital management

The objectives of capital management are to secure ability to continue as a going concern and to optimize cost of capital in order to enhance value to shareholders. As part of these objectives, Outokumpu seeks to maintain access to loan and capital markets at all times despite of the cyclical nature of the stainless steel industry. The Board of Directors reviews the capital structure of the Group on a regular basis. Capital structure and debt capacity are taken into account when deciding e.g. on investments and dividends. Tools to manage equity capital include dividend policy, share buybacks and issues of equity or equity-linked securities. Debt capital is managed taking into account the requirement to maintain good liquidity and the capability to refinance maturing debt. These topics are considered in connection with cost of capital optimization.

In early part of 2018, Outokumpu's dividend policy was updated. According to the new policy dividend pay-out ratio throughout a business cycle shall be in the range of 30–50% of net income.

Tools to manage debt capital include issue of new debt, prepayment of loans and liability management measures, such as the use of call options of issued notes. In 2018, Outokumpu called all remaining amount (EUR 202.5 million) of notes due 2021. The revolving credit facility and the Kemi mine financing facility includes financial covenants, which are based on debt-to-equity ratios. The notes maturing in 2024 include incurrence based financial covenant on debt-to-equity ratio and the defined covenant level is 100 percent.

The Group's internal capital structure is reviewed on a regular basis with an aim to optimize it e.g. by applying internal dividends and equity adjustments. Net investment and debt in foreign subsidiaries is monitored and Outokumpu has capability to hedge net investment translation risk.

Visenta Försäkringsaktiebolag has to comply with capital adequacy requirements set by the financial supervisory authority in Sweden. During the reporting period Visenta has been profitable and well capitalized to meet externally imposed requirements, which are based e.g. on Solvency II framework.

The management monitors Group's capital structure on the basis of debt-to-equity ratio, which is calculated as net debt divided by total equity, and on a basis of leverage ratio, which is calculated as net debt divided by adjusted EBITDA. Outokumpu targets are to have debt-to-equity ratio below 35% and leverage below 1.0. Outokumpu also targets to improve its current credit ratings.

Capital structure

€ million	2018	2017
Total equity	**2,750**	2,721
Non-current debt	**798**	698
Current debt	**511**	505
Total debt	**1,309**	1,203
Total capitalization	**4,059**	3,924
Total debt	**1,309**	1,203
Cash and cash equivalents	**–68**	–112
Net debt	**1,241**	1,091

	2018	2017
Debt-to-equity ratio, %	**45.1**	40.1
Net debt to adjusted EBITDA	**2.6**	1.7

The increase in debt-to-equity ratio resulted primarily from distributions to shareholders and increase in net working capital. Leverage at year-end increased when compared with the previous year, this was caused mainly by decrease in profitability.

Insurances

The Group's business is capital intensive and key production processes are rather tightly integrated and have therefore interdependencies. Property damage and business interruption insurance, covering e.g. fires, machinery breakdowns and natural catastrophes, is the most important insurance line and significant portion of insurance premiums paid relate to this PDBI cover. Business operations may cause significant liability risks related e.g. to people, environment or Outokumpu's products. Outokumpu aims to mitigate liability risk by relevant risk management measures and by having reasonable insurances in place. Other significant insurance lines include marine cargo and credit. In connection with 2018 insurance renewal Outokumpu chose to increase deductibles of its property damage and business interruption policy.

Visenta Försäkringsaktiebolag can act as direct insurer and as reinsurer. Visenta is registered in Sweden and it has assets totalling EUR 19 million (2017: EUR 21 million). In 2018, Visenta increased its participation to Outokumpu's property and business interruption insurance.

During the reporting year there were no serious fires, but there were few machinery breakdown incidents of which one is in claims process. The claim process related to damage in ferrochrome meltshop in 2017 was concluded and Outokumpu received EUR 32 million insurance compensation in the fourth quarter 2018. Fire safety and machinery breakdown audits were carried out mainly as planned.

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20. Fair values and nominal amounts of derivative instruments

€ million	2018 Positive fair value	2018 Negative fair value	2018 Net fair value	2017 Net fair value	2018 Nominal amounts	2017 Nominal amounts
Currency and interest rate derivatives						
Currency forwards	9	13	**–4**	11	**2,289**	2,994
Currency options, bought	–	–	**–**	0	**–**	12
Interest rate swaps	2	–	**2**	–3	**200**	150
					Tonnes	Tonnes
Metal derivatives						
Forward and futures nickel contracts	3	8	**–5**	–6	**12,266**	18,581
Forward and futures molybdenum contracts	0	0	**–0**	–	**34**	–
Nickel options, bought	3	–	**3**	–1	**8,000**	9,800
Nickel options, sold	–	0	**–0**	–	**3,000**	–
Propane derivatives	0	–	**0**	–	**18,000**	–
Emission allowance derivatives	–	–	**–**	3	**–**	2,400,000
Total derivatives	17	21	**–4**	4		
Less long-term derivatives						
Interest rate swaps	2	–	**2**	–3		
Forward and futures nickel contracts	–	1	**–1**	1		
Forward and futures molybdenum contracts	–	0	**–0**	–		
Short-term derivatives	15	20	**–4**	6		

Fair values are estimated based on market rates and prices on the reporting date, discounted future cash flows and, in respect of options, on valuation models.

Hedge accounted cash flow hedges

Outokumpu has hedged with EUR/SEK currency forwards the spot price risk related to SEK denominated electricity supply agreement for the Finnish production sites. The forward points are excluded from the cash flow hedging relationship and are recognized in other operating profit and loss. The currency derivatives designated to cash flow hedge accounting and the purchases of electricity will mature in year 2019. The management has estimated that possible ineffectiveness relates to credit risk or timing of transactions, but these are estimated to be insignificant.

Cash flow hedges (EUR/SEK)

	2018	2017
Fair value of hedges, € million	**0**	–2
Nominal amount of hedges, € million	**37**	78
Nominal amount of hedged item, € million	**38**	79
Hedge ratio	**1:1**	1:1
Weighted average hedge rate	**9.410**	9.410
Fair value reserve in other comprehensive income, € million	**–3**	–3
Reclassified from other comprehensive income to profit or loss, € million [1)]	**–4**	–1

[1)] Included in cost of sales

Master netting agreements and similar arrangements

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 in the statement of financial position. The right to offset is enforceable only on the occurrence future credit events. The following table sets out the carrying amounts of recognized financial instruments that are subject to the agreements described above.

€ million	2018	2017
Derivative assets		
Gross amounts of recognized financial assets in the statement of financial position	**17**	44
Related financial instruments that are not offset	**12**	29
	5	15
Derivative liabilities		
Gross amounts of recognized financial liabilities in the statement of financial position	**21**	40
Related financial instruments that are not offset	**12**	29
	9	11

21. Inventories

€ million	2018	2017
Raw materials and consumables	**485**	423
Work in progress	**584**	540
Finished goods and merchandise	**486**	416
Advance payments	**0**	1
	1,555	1,380

The most important commodity price risk for Outokumpu is caused by fluctuation in nickel and other alloy prices. Majority of stainless steel sales contracts include an alloy surcharge clause, with the aim of reducing the risk arising from the time difference between raw material purchase and product delivery. However, the risk is remarkable, because the delivery cycle in production is longer than the alloy surcharge mechanism expects. Thus, only the price for the products to be sold in near future is known. That is why a significant part of the future prices for the products to be sold is estimated according to management's best knowledge in net realizable value (NRV) calculations. Due to fluctuation in nickel and other alloy prices, the realized prices can deviate significantly from what has been used in NRV calculations on the closing date. NRV write-downs amounting to EUR 13 million were recognized in income statement during the financial year (2017: write-downs amounting to EUR 5 million). More details on commodity price risk are presented in note 19.

22. Trade and other receivables

€ million	2018	2017 restated
Non-current		
Other accruals and receivables	**2**	1
Current		
Trade receivables	**482**	493
VAT receivable	**26**	37
Income tax receivable	**24**	19
Prepaid insurance expenses	**11**	7
Other accruals	**28**	38
Other receivables	**70**	67
	640	660
Impairment of trade receivables		
On Jan 1 before IFRS 9 transition	**6**	6
IFRS 9 transition impact	**1**	–
On Jan 1 according to IFRS 9	**7**	–
Additions	**0**	0
On Dec 31	**7**	6
Age analysis of trade receivables		
Neither impaired, nor past due	**416**	425
Past due 1–30 days	**54**	56
Past due 31–60 days	**6**	5
More than 60 days	**6**	6
	482	493

On January 1, 2017, other accruals amounted to EUR 46 million and total current trade and other receivables amounted to EUR 688 million. The amounts were impacted by the IFRS 15 transition of EUR 1 million as described in note 2.

The maximum exposure to credit risk at the reporting date is the carrying amount of the loan and trade receivables. Most of the outstanding trade receivables have been secured by credit insurance policies, which typically covers some 90% of an insured credit loss. Credit risks related to trade receivables are presented in more detail in note 19. Expected credit losses are calculated as defined in the accounting principles of these financial statements (see note 2).

As of December 31, 2018 Outokumpu has derecognized trade receivables totaling EUR 392 million (2017: EUR 377 million), which represents fair value of the assets. Net proceeds received totaled EUR 373 million (2017: EUR 357 million). Underlying assets have maturity less than one year. The maximum amount of loss related to derecognized assets is estimated to be EUR 18 million (2017: EUR 15 million). This estimation is based on insurance policies and contractual arrangements of factoring companies and Outokumpu. The analysis does not include impact of any operational risk related to Outokumpu's contractual responsibilities.

23. Cash and cash equivalents

€ million	2018	2017
Cash at bank and in hand	**67**	112
Short-term bank deposits and cash equivalents	**1**	0
	68	112
Bank overdrafts [1)]	**–36**	–7
	32	105

[1)] Presented in current debt in the consolidated statement of financial position.

Fair value of cash and cash equivalents does not significantly differ from the carrying value. The average effective interest rate of cash and cash equivalents at the end of 2018 was 1.3% (Dec 31, 2017: 0.7%).

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24. Equity

Share capital, premium fund and invested unrestricted equity reserve

€ million	Number of shares, 1,000	Share capital	Premium fund	Invested unrestricted equity reserve	Total
On Jan 1, 2017	413,861	311	714	2,103	3,127
Shares delivered from the share-based payment programs [1]	813	–	–	–	–
Reward shares returned to the Company	–2				
Treasury share purchase	–2,000	–	–	–	–
On Dec 31, 2017	412,672	311	714	2,103	3,127
Shares delivered from the share-based payment programs [1]	892	–	–	–	–
Treasury share purchase	–3,000	–	–	–	–
On Dec 31, 2018	**410,564**	**311**	**714**	**2,103**	**3,127**
Treasury shares [1]	5,811				
Total number of shares on Dec 31, 2018	**416,374**				

[1] Shares granted from treasury shares without effect to share capital. The movement in the cost of treasury shares in presented in the statement of changes in the equity.

According to the Articles of Association, the Outokumpu share does not have nominal value.

Premium fund includes proceeds from share subscription and other contribution based on the old Finnish Limited Liability Companies Act for the part the contributions exceed the account equivalent value allocated to share capital. Invested unrestricted equity reserve includes net proceeds from the rights issues in 2014 and 2012. Fair value reserves include movements in the fair values of available-for-sale financial assets and derivative instruments used for cash flow hedging. Other 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. Retained earnings include remeasurements of defined benefit plans, treasury shares, cumulative translation differences and other retained earnings and losses.

Distributable funds

On December 31, 2018, the distributable funds of the parent company totaled EUR 2,298 million of which retained earnings were EUR 175 million. The Board of Directors proposes to the Annual General Meeting in 2019 that a dividend of EUR 0.15 per share is paid for 2018 (dividend of EUR 0.25 per share paid for 2017).

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25. Employee benefit obligations

Outokumpu has established several defined benefit and defined contribution plans in various countries. The most significant defined benefit plans are in Germany and in the UK.

Germany

In Germany, Outokumpu has several defined benefit plans, of which major plans include a management plan, open pension plans for normal staff, and other pension promises, which are nearly all closed for new entrants. Basis to all pension promises in Germany are bargaining agreements and/or individual contracts (management promises). Management plan and other pension promises are based on annuity payments, whereas plans for normal employees are based on one lump sum payment after retirement. In 2018, the lump sum payment option was introduced to more plans, and the assumption related to the usage of this option was revised. These were considered as plan amendments leading to a positive settlement impact of EUR 11 million.

In addition, all the promises are embedded in Germany 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, thus the plans are materially all unfunded.

The UK

The scheme is registered under UK legislation and is contracted out of the State Second Pension. The scheme is subject to the scheme funding requirements outlined in UK legislation. The scheme trustees are responsible for the operation and governance of the scheme, including making decisions regarding the scheme's funding and investment strategy. In 2018, the interpretation related to guaranteed minimun pension equalization was changed, which resulted in recognition of past service cost of EUR 9 million in 2018.

Risks associated with defined benefit plans

Through its defined benefit pension plans, Outokumpu is exposed to a number of risks, the most significant of which are detailed.

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 plans' 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.

Funding

Funding requirements are generally based on pension fund's actuarial measurement framework set out in the funding policies. In the UK preliminary pension fund's valuation was completed in 2018 with a deficit of GBP 32 million. In 2018, Outokumpu made contributions totalling GBP 17 million to the plan to cover the deficit, and the remaining GBP 15 million will be paid during 2019–2021. The valuation was not based on the same assumptions as the IFRS valuation, which shows a surplus.

Defined benefit cost recognized in the consolidated statements of income and comprehensive income

€ million	2018	2017
In EBIT	**–2**	–7
In financial income and expenses	**–3**	–4
Defined benefit cost recognized in the consolidated statement of income	**–5**	–11
In other comprehensive income	**–7**	18
Total defined benefit cost recognized	**–12**	8

Amounts recognized in the consolidated statement of financial position

€ million	2018	2017
Present value of funded defined benefit obligations	**415**	441
Present value of unfunded defined benefit obligations	**287**	311
Fair value of plan assets	**–471**	–503
Net defined benefit liability	**231**	249

€ million	2018	2017
Defined benefit liability	**304**	319
Other long-term employee benefit liabilities	**14**	18
Defined benefit assets	**–72**	–70
Net liability	**245**	267

Movement in net defined benefit liability

€ million	2018 Present value of obligation	2018 Fair value of plan assets	2018 Net defined benefit liability	2017 Present value of obligation	2017 Fair value of plan assets	2017 Net defined benefit liability
On Jan 1	752	–503	249	804	–527	276
Current service cost	2	–	2	7	–	7
Interest expense/(income)	15	–12	3	17	–13	4
Remeasurements arising from						
Return on plan assets	–	24	24	–	–12	–12
Demographic assumptions	1	–	1	8	–	8
Financial assumptions	–26	–	–26	5	–	5
Experience adjustment	8	–	8	–20	–	–20
Exchange differences	–3	4	1	–19	18	–1
Employer contributions	–	–31	–31	–	–18	–18
Benefits paid	–48	48	0	–40	40	0
Curtailments	–1	–	–1	–0	–	–0
Disposed subsidiaries	–	–	–	–12	9	–3
Other change	1	–	1	–	–	–
On Dec 31	**702**	**–471**	**231**	752	–503	249

The present value of obligations and the fair value of plan assets comprise mainly of German and UK plans. The present value of obligation for German plans on December 31, 2018 was EUR 294 million (Dec 31, 2017: EUR 305 million). For the UK, the present value of obligation was EUR 382 million (Dec 31, 2017: EUR 414 million), and the fair value of plan assets was EUR 454 million (Dec 31, 2017: EUR 485 million) on December 31, 2018.

The expected contributions to be paid to the defined benefit plans in 2019 are EUR 8 million.

Allocation of plan assets

€ million	2018	2017
Equity instruments	**48**	68
Debt instruments	**251**	271
Real estate	**0**	1
Other assets	**166**	159
Total plan assets	**465**	499

Allocation of plan assets covers 99% of total defined benefit plan assets. The plan assets are mainly invested in quoted instruments. Debt instruments include mostly investment grade government and corporate bonds.

Asset-liability matching strategies

The majority of defined benefit assets are in the UK. The UK scheme's benchmark asset allocation is 30%/70% return-seeking/liability matching. This strategy reflects the scheme's liability profile and the trustees' and company's attitude to risk. The trustee monitors the investment objectives and asset allocation policy on a regular basis.

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Significant actuarial assumptions

		Germany	The UK	Other countries
Discount rate, %	**2018**	**1.75**	**2.75**	**3.12**
	2017	1.51	2.50	2.76
Future salary increase, %	**2018**	**–**	**–**	**1.26**
	2017	–	–	2.18
Inflation rate, %	**2018**	**–**	**3.20**	**–**
	2017	–	3.20	–
Future benefit increase, %	**2018**	**1.70**	**2.95**	**–**
	2017	1.51	2.95	–
Medical cost trend rate, %	**2018**	**–**	**–**	**5.20–5.60**
	2017	–	–	6.20–6.60
Life expectancy	**2018**	Modified from RT 2018 G / RT 2005 G	96% SAPS All Pensioner Amounts tables with CMI Core Projection Model –2016	Standard mortality tables
	2017	Modified from RT 2005 G	96% SAPS All Pensioner Amounts tables	Standard mortality tables

The significant actuarial assumptions are presented separately for the significant countries, and for other countries a weighted average of the assumptions is presented.

The weighted average duration of the overall defined benefit obligation is 17.1 years. In Germany and in the UK the weighted average durations are 13.1 and 21.0 years, respectively.

Sensitivity analysis of significant actuarial assumptions

Reasonably possible changes at the reporting date to one of the weighted principal assumptions, while holding all other assumptions constant, would have affected the defined benefit obligation as shown below:

Germany	Change in assumption	Increase in assumption	Decrease in assumption
2018			
Discount rate	0.5%	Decrease by 6%	Increase by 7%
Future benefit increase	0.5%	Increase by 3%	Decrease by 3%
Life expectancy	1 year	Increase by 3%	
2017			
Discount rate	0.5%	Decrease by 7%	Increase by 8%
Future benefit increase	0.5%	Increase by 3%	Decrease by 3%
Life expectancy	1 year	Increase by 3%	

The UK	Change in assumption	Increase in assumption	Decrease in assumption
2018			
Discount rate	0.5%	Decrease by 9%	Increase by 11%
Future benefit increase	0.5%	Increase by 7%	Decrease by 6%
Life expectancy	1 year	Increase by 3%	
2017			
Discount rate	0.5%	Decrease by 9%	Increase by 11%
Future benefit increase	0.5%	Increase by 7%	Decrease by 6%
Life expectancy	1 year	Increase by 3%	

Other countries	Change in assumption	Increase in assumption	Decrease in assumption
2018			
Discount rate	0.5%	Decrease by 4%	Increase by 4%
Medical cost trend rate	0.5%	Increase by 0%	Decrease by 0%
Future salary increase	0.5%	Increase by 1%	Decrease by 1%
Life expectancy	1 year	Increase by 7%	
2017			
Discount rate	0.5%	Decrease by 5%	Increase by 5%
Medical cost trend rate	0.5%	Increase by 2%	Decrease by 2%
Future salary increase	0.5%	Increase by 1%	Decrease by 1%
Life expectancy	1 year	Increase by 7%	

Other long-term employee benefits

Other long-term employee benefits mainly relate to early retirement provisions in Germany and long-service remunerations in Finland. The terms of the long-service remunerations in Germany were changed in 2017, and the arrangement no longer contains long-term employee benefit obligations, but the benefits are current in nature. 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.

The other long-term employee benefit liabilities recognized in the consolidated statement of financial position on December 31, 2018 were EUR 14 million (Dec 31, 2017: EUR 18 million).

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.

26. Provisions

€ million	Restructuring provisions	Environmental provisions	Other provisions	Total
Provisions on Jan 1, 2018	23	59	12	93
Translation differences	–0	–1	–0	–1
Increases in provisions	5	4	2	12
Acquired subsidiaries	–	1	0	1
Utilized during the financial year	–11	–5	–5	–22
Unused amounts reversed	–3	–5	–5	–14
Provisions on Dec 31, 2018	**13**	**53**	**4**	**70**

€ million	2018	2017
Non-current provisions	**65**	79
Current provisions	**5**	14
	70	93

Restructuring provisions

Restructuring provisions relate mainly to global streamlining measures of sales, general and administrative functions in 2016 and restructuring measures in accordance with the EMEA restructuring plan in 2013–2015. The remaining restructuring provisions on December 31, 2018 related mainly to measures in Germany, where such activities are typically carried out over a period of several years. Consequently, the cash outflows are expected to take place between years 2019–2024.

Environmental provisions

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. 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.

Other provisions

Other provisions comprise for example provisions for product and other claims and are mainly current in nature. The increase is mainly due to product claims and a provision related to earlier site closures.

Provisions are based on management's best estimates at the end of the reporting period.

27. Debt

€ million	2018	2017
Non-current		
Bonds	**249**	201
Convertible bonds	**238**	229
Loans from financial institutions	**12**	18
Pension loans	**217**	165
Finance lease liabilities	**82**	85
	798	698
Current		
Loans from financial institutions	**45**	16
Pension loans	**3**	6
Finance lease liabilities	**3**	5
Commercial paper	**460**	477
	511	505
Net debt		
Non-current and current debt	**1,309**	1,203
Cash and cash equivalents	**–68**	–112
Net debt	**1,241**	1,091

The bond maturing in 2024 as well as credit facilities and long-term loans from financial institutions include financial covenants, which are described in note 19.

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32

Changes in non-current and current debt

2018 € million	Non-current debt	Current portion of non-current debt	Non-current finance lease liabilities	Current portion of finance lease liabilities	Current debt	Total
On Jan 1	613	13	85	5	487	1,203
Financing cash flows	101	–13	–	–5	7	90
Transfer to current debt	–10	10	–3	3	–	–
Other non-cash movements	11	–	–	–	4	16
On Dec 31	**715**	**10**	**82**	**3**	**499**	**1,309**

2017 € million	Non-current debt	Current portion of non-current debt	Non-current finance lease liabilities	Current portion of finance lease liabilities	Current debt	Total
On Jan 1	897	67	90	65	326	1,445
Financing cash flows [1]	–283	–67	–	–65	161	–254
Transfer to current debt	–13	13	–5	5	–	–
Other non-cash movements	13	–	–	–	–	13
On Dec 31	613	13	85	5	487	1,203

[1] Additionally, net cash flow from financing activities in 2017 included a repayment of a guarantee received relating to the divestment of SKS of EUR 37 million. In consolidated statement of cash flows, these was reported as other financing cash flow.

Regarding cash and cash equivalents, the reconciliation of cash effective and non-cash movements is presented in the consolidated statement of cash flows.

Bonds

€ million	Interest rate, %	Outstanding amount 2018	2017
2018 fixed rate bond maturing on June 18, 2024	4.125	**250**	–
2016 fixed rate bond maturing on June 16, 2021	7.250	**–**	203
		250	203

Convertible bonds

€ million	Interest rate, %	Outstanding amount 2018	2017
2015 fixed rate bond maturing on Feb 26, 2020	3.250	**250**	250

The convertible bond is convertible into ordinary shares of Outokumpu. The current conversion price is set at EUR 7.06. The conversion price will be 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 notes. Outokumpu has the right to redeem all outstanding bonds on or after March 13, 2018 if the volume-weighted average price of the Outokumpu share calculated for a specified period of time exceeds 130% of the then prevailing conversion price. Subject to a certain triggering event, there can be a coupon step-up by 0.75 percentage points.

Finance lease liabilities

Minimum lease payments

€ million	2018	2017
Not later than 1 year	**12**	14
Between 1 and 5 years	**74**	83
Later than 5 years	**147**	149
Future finance charges	**–147**	–157
Present value of minimum lease payments	**85**	90

Present value of minimum lease payments

€ million	2018	2017
Not later than 1 year	**3**	5
Between 1 and 5 years	**54**	56
Later than 5 years	**28**	29
Present value of minimum lease payments	**85**	90

28. Trade and other payables

€ million	2018	2017 Restated
Non-current		
Accruals	**35**	34
Current		
Trade payables	**1,200**	1,162
Accrued employee-related expenses	**63**	77
Accrued interest expenses	**5**	6
VAT payable	**24**	26
Withholding tax and social security liabilities	**21**	19
Payables related to factoring programs	**46**	50
Advance payments received	**10**	8
Other accruals	**49**	48
Other payables	**52**	48
	1,471	1,442

Customer contract liabilities related to unperformed transportation service amounted to EUR 1 million on December 31, 2018 (Dec 31, 2017 and Jan 1, 2017: EUR 1 million). These liabilities and advances received are expected to be recognized as revenue during the first quarter of 2019.

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32

On December 31, 2018, accrued volume discounts related to contracts with customers amounted to EUR 28 million (Dec 31, 2017: EUR 32 million).

On January 1, 2017, other accruals amounted to EUR 52 million and the total current trade and other payables amounted to EUR 1,461 million. The amounts were impacted by the IFRS 15 transition of EUR 1 million as described in note 2.

29. Commitments and contingent liabilities

€ million	2018	2017
Mortgages and pledges on Dec 31		
Mortgages	**3,055**	2,984
Other pledges	**28**	13
Guarantees on Dec 31		
On behalf of subsidiaries for commercial and other commitments	**28**	27
On behalf of associated companies for financing	**4**	–
Other commitments on Dec 31	**19**	21

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.

Outokumpu has provided a security, including a pledge of shares of a subsidiary company, related to AvestaPolarit pension scheme in the UK.

Other pledges include Outokumpu's shares in Manga LNG Oy of EUR 13 million to secure certain liabilities of Manga LNG Oy. Outokumpu's total liability at the end of 2018 amounted to EUR 33 million (2017: EUR 31 million), and the part exceeding the share pledge and guarantee is presented under other commitments.

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. Outokumpu's liability for the net debt of Tornion Voima Oy in year-end 2018 amounted to EUR 2 million (2017: EUR 2 million). These liabilities are reported under other commitments.

Minimum lease payments on operating leases

€ million	2018	2017
Not later than 1 year	**13**	11
Between 1 and 5 years	**32**	30
Later than 5 years	**44**	47
	90	88

Operating leases include lease agreements on Group companies' premises.

Outokumpu's share of the Fennovoima investment is about EUR 250 million of which EUR 79 million has been paid by the end of the reporting period. Annual capital expenditure related to the project is expected to be around EUR 15–20 million in the coming years, and approximately half of the investment is expected to be paid only at the end of the construction phase.

Group's other off-balance sheet investment commitments totaled EUR 106 million on December 31, 2018 (Dec 31, 2017: EUR 28 million).

30. 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 Spanish company in connection with the divestment. The court of first instance in Spain accepted the claim of EUR 20 million brought against Outokumpu and the two other companies. Outokumpu and the two other companies then appealed the court's decision and in March 2018 the Court of Appeal ruled in favor of Outokumpu. In May 2018, the administrator of the bankruptcy estate filed an appeal before the Spanish Supreme Court, where the case pending.

Claim in Italy related to former tax consolidation group

In December 2015, Outokumpu Holding Italia and Acciai Speciali Terni (AST) entered into a dispute relating to the tax consolidation of the former ThyssenKrupp Tax Group in Italy. AST claims payment of approximately EUR 23 million resulting from the former tax consolidation of the Italian tax group managed by ThyssenKrupp. Outokumpu Holding Italia is the former ThyssenKrupp holding company and was transferred to Inoxum as part of the carve-out in 2011. The EUR 23 million claim resulted from tax benefits (tax losses, tax credits and interest expenses) transferred by AST to the Italian tax group during the period from financial year 2007/08 until 2013, which have in AST's view not been properly settled towards them in the following years. The matter is currently pending in court in Italy.

Antitrust investigation in Germany

In September 2016, Outokumpu learned of a cartel investigation initiated by the German Federal Cartel Office involving, among others, Outokumpu Nirosta GmbH, Outokumpu's subsidiary in Germany. Outokumpu initiated an internal investigation and became convinced that the investigation is without merit, as far as Outokumpu is concerned. In May 2018, Outokumpu received an official notification from the German Federal Cartel Office confirming that the investigation against Outokumpu Nirosta GmbH was terminated.

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32

31. Related party transactions

Outokumpu's related parties include the key management of the company and their close family members, associated companies and joint ventures, and Solidium Oy. The transactions with related parties are presented in the tables below. Key management includes Leadership Team members and members of the Board of Directors. The principal associated companies and joint ventures are listed in note 14 and subsidiaries are presented in note 32.

Solidium Oy, a limited company fully owned by the State of Finland, owned 22.8% of Outokumpu on December 31, 2018. 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 and balances with related companies

€ million	2018	2017 Restated
Sales and other operating income	**100**	104
Purchases	**–16**	–5
Dividend income	**1**	2
Trade and other receivables	**24**	25
Trade and other payables	**3**	0

Employee benefits for the key management

€ thousand	2018	2017
Short-term employee benefits	**6,381**	7,848
Termination benefits	**519**	–
Post-employment benefits [1)]	**1,247**	1,792
Share-based payments	**55**	6,449
Remuneration to the Board of Directors	**576**	617
	8,777	16,706

[1)] Includes only supplementary pensions.

Employee benefits for CEO and Deputy CEO

€ thousand	Salaries and other short-term benefits	Bonuses	Termination benefits	Post-employment benefits	Share-based payments	Total
2018						
CEO	**1,076**	**348**	**–**	**503**	**–166**	**1,761**
Deputy to the CEO	**469**	**163**	**519**	**101**	**159**	**1,411**
2017						
CEO	1,073	701	–	612	1,787	4,173
Deputy to the CEO	440	249	–	196	700	1,584

Regarding the CEO, the figures include both the statutory pension expenses based on the Finnish Employees Pensions Act and the expenses for a defined contribution pension plan with an annual insurance premium of 25% of his annual earnings, excluding share rewards. The CEO has the right to retire at the age of 63. The deputy to the CEO resides in Germany and is entitled to the pension benefits in accordance with the German Essener Verband.

More information on key management's employee benefits can be found in chapter Corporate Governance on the page Remuneration.

Remuneration to Board of Directors

€ thousand	2018	2017
Chairman Kari Jordan, as of March 22, 2018	**164**	–
Chairman Jorma Ollila, until March 22, 2018	**2**	148
Vice Chairman Olli Vaartimo	**97**	89
Member Kati ter Horst	**77**	69
Member Heikki Malinen	**77**	68
Member Eeva Sipilä, as of March 21, 2017	**75**	67
Member Pierre Vareille, as of March 22, 2018	**77**	–
Member Markus Akermann, until March 22, 2018	**5**	74
Member Roberto Gualdoni, until March 22, 2018	**2**	78
Member Saila Miettinen-Lähde, until June 9, 2017	**–**	18
Member Stig Gustavson, until March 21, 2017	**–**	2
Member Elisabeth Nilsson, until March 21, 2017	**–**	5
	576	617

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32

32. Subsidiaries on December 31, 2018

		Country	Group holding, %
Europe			
Outokumpu AS		Norway	100
Outokumpu Asia Pacific Ltd		China	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 Distribution UK Ltd.		The UK	100
Outokumpu Europe Oy	*)	Finland	100
Outokumpu Ges.m.b.H.		Austria	100
Outokumpu India Private Limited		India	100
Outokumpu K.K.		Japan	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 PSC Germany GmbH		Germany	100
Outokumpu Pty Ltd		Australia	100
Outokumpu (Pty) Ltd		South Africa	100
Outokumpu S.A.		Spain	100
Outokumpu (S.E.A.) Pte. Ltd.		Singapore	100
Outokumpu Service Center GmbH	1)	Germany	100
Outokumpu Shipping Oy		Finland	100
Outokumpu S.p.A.		Italy	100
Outokumpu Stainless AB		Sweden	100
Outokumpu Stainless B.V.		The Netherlands	100
Outokumpu Stainless Steel (China) Co. Ltd.		China	100
Outokumpu Stainless Oy		Finland	100
Outokumpu Tornio Infrastructure Oy		Finland	100
Sogepar UK Limited		The UK	100

		Country	Group holding, %
Americas			
Outokumpu Brasil Comercio 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
Long Products			
Fagersta Stainless AB	2)	Sweden	100
Outokumpu Stainless Bar, LLC		The US	100
Outokumpu Stainless Ltd		The UK	100
Ferrochrome			
Outokumpu Chrome Oy	*)	Finland	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 Italia S.p.A.		Italy	100
Outokumpu Holding Nederland B.V.	*)	The Netherlands	100
Outokumpu Mining Australia Pty. Ltd.		Australia	100
Outokumpu Mining Oy		Finland	100
Outokumpu Stainless Holding GmbH		Germany	100
Outokumpu Stainless Holdings Ltd		The UK	100
Outokumpu Stainless UAB		Lithuania	100
Québec Inc.	1)	Canada	100
Viscaria AB	*)	Sweden	100
Visenta Försäkrings AB		Sweden	100

In addition Outokumpu has branch offices in South Korea, Switzerland, Taiwan, Thailand, The UK and Vietnam.

This list does not include all dormant companies or all holding companies.

The Group holding corresponds to the Group's share of voting rights.

*) Shares and stock held by the parent company

1) Name changed

2) Acquired in 2018

Parent company financial statements

Income statement of the parent company

€ million	2018	2017
Sales	**587**	505
Cost of sales	**–482**	–384
Gross margin	**105**	121
Other operating income	**87**	135
Selling and marketing expenses	**–17**	–18
Administrative expenses	**–110**	–115
Other operating expenses	**–431**	–1
EBIT	**–367**	123
Financial income and expenses	**187**	9
Result before appropriations and taxes	**–180**	132
Appropriations		
Group contribution	**185**	97
Change in depreciation difference	**1**	–2
Income taxes	**–0**	–0
Result for the financial year	**6**	227

According to the Finnish accounting standards the parent company financial statements are to be presented in addition to Group financial statements.

The parent company's financial statements have been prepared in accordance with Finnish accounting standards (FAS).The parent company Outokumpu Oyj's income statement and balance sheet items are mainly internal and are eliminated on the group level.

Balance sheet of the parent company

€ million	2018	2017
ASSETS		
Non-current assets		
Intangible assets	**100**	40
Property, plant and equipment	**9**	20
Financial assets		
Shares in Group companies	**3,776**	4,002
Loan receivables from Group companies	**1,022**	924
Shares in associated companies	**27**	31
Other shares and holdings	**80**	64
Other financial assets	**2**	1
	4,906	5,021
Total non-current assets	**5,016**	5,080
Current assets		
Current receivables		
Loans receivable	**617**	1,223
Trade receivables	**54**	64
Prepaid expenses and accrued income	**40**	16
Other receivables	**213**	167
	924	1,471
Cash and cash equivalents	**23**	61
Total current assets	**947**	1,532
TOTAL ASSETS	**5,962**	6,612

€ million	2018	2017
EQUITY AND LIABILITIES		
Shareholders' equity		
Share capital	**311**	311
Premium fund	**720**	720
Invested unrestricted equity reserve	**2,123**	2,123
Retained earnings	**169**	63
Result for the financial year	**6**	227
	3,330	3,444
Untaxed reserves		
Accumulated depreciation difference	**1**	2
Liabilities		
Non-current liabilities		
Bonds	**250**	203
Convertible bonds	**250**	250
Loans from financial institutions	**12**	18
Pension loans	**137**	149
Other non-current loans	**1**	4
	650	625
Current liabilities		
Loans from financial institutions	**36**	13
Pension loans	**3**	3
Group bank account liabilities	**1,275**	1,751
Other current loans	**464**	549
Trade payables	**163**	142
Accrued expenses and prepaid income	**10**	11
Other current liabilities	**30**	74
	1,982	2,542
Total liabilities	**2,632**	3,166
TOTAL EQUITY AND LIABILITIES	**5,962**	6,612

Cash flow statement of the parent company

€ million	2018	2017
Cash flow from operating activities		
Result for the financial year	**6**	227
Adjustments for		
Taxes	**0**	0
Depreciation and amortization	**7**	6
Impairments	**431**	–135
Gain/loss on sale of intangible assets, and property, plant and equipment	**–78**	0
Interest income	**–94**	–93
Dividend income	**–171**	–0
Interest expense	**35**	54
Change in provisions	**–1**	1
Exchange gains and losses	**15**	5
Group contributions	**–185**	–99
Other non-cash adjustments	**1**	0
	–40	–261
Change in working capital		
Change in trade and other receivables	**–10**	8
Change in trade and other payables	**2**	26
	–8	35
Dividends received	**171**	0
Interest received	**89**	96
Interest paid	**–36**	–59
Income taxes paid	**–0**	–0
	224	37
Net cash from operating activities	**183**	38

€ million	2018	2017
Cash flow from investing activities		
Investments in subsidiaries and other shares and holdings	**–398**	–15
Purchases of property, plant and equipment	**–0**	–0
Purchases of intangible assets	**–78**	–38
Proceeds from disposal of subsidiaries and other disposals	**255**	170
Proceeds from sale of property, plant and equipment	**–10**	–0
Proceeds from sale of intangible assets	**27**	24
Proceeds from sale of other financial assets	**0**	0
Change in other long-term receivables	**–125**	–418
Net cash from investing activities	**–330**	–277
Cash flow before financing activities	**–147**	–240
Cash flow from financing activities		
Dividends paid	**–103**	–41
Treasury shares purchase	**–17**	–20
Borrowings of non-current debt	**250**	190
Repayments of non-current debt	**–221**	–538
Change in current debt	**–540**	130
Cash flow from group contribution	**97**	0
Other financing cash flow	**643**	454
Net cash from financing activities	**108**	177
Net change in cash and cash equivalents	**–39**	–63
Net change in cash and cash equivalents in the balance sheet	**–39**	–63

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, 2017	311	720	2,123	123	3,278
Result for the financial year	–	–	–	227	227
Dividends paid	–	–	–	–41	–41
Treasury shares repurchase	–	–	–	–20	–20
Equity on Dec 31, 2017	311	720	2,123	289	3,444
Result for the financial year	–	–	–	6	6
Dividends paid	–	–	–	–103	–103
Treasury shares repurchase	–	–	–	–17	–17
Equity on Dec 31, 2018	**311**	**720**	**2,123**	**175**	**3,330**

Distributable funds on Dec 31

€ million	2018	2017
Retained earnings	**169**	62
Result for the financial year	**6**	227
Invested unrestricted equity reserve	**2,123**	2,123
Distributable funds on Dec 31	**2,298**	2,412

Commitments and contingent liabilities of the parent company

€ million	2018	2017
Other pledges on Dec 31	**13**	13
Guarantees on Dec 31		
On behalf of subsidiaries		
For financing	**378**	295
For commercial guarantees	**2**	0
For other commitments	**28**	27
On behalf of associated companies		
For financing	**4**	–
Other commitments on Dec 31	**19**	21

A major part of Outokumpu's borrowings are secured by security to the real property of selected subsidiaries.

Other pledges include Outokumpu's shares in Manga LNG Oy to secure certain liabilities of Manga LNG Oy. Outokumpu's total liability at the end of 2018 amounts to EUR 33 million (2017: EUR 31 million), and the part exceeding the share pledge and guarantee is presented under other commitments.

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. Outokumpu Oyj's liability for the net debt of Tornion Voima Oy at the year-end 2018 amounted to EUR 2 million (2017: EUR 2 million). These liabilities are reported under other commitments.

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 2018. 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 a summary of significant accounting principles
- 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.

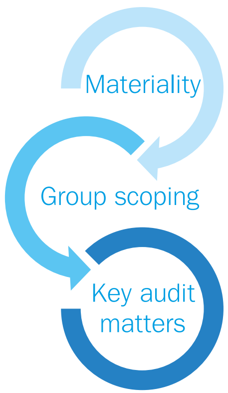
Independence

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 6 to the Financial Statements.

Our Audit Approach

Overview



- Overall group materiality: € 32 million

- The audit scope includes all significant companies, covering the vast majority of revenues, 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 below. 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	€ 32 million
How we determined it	0.5% of net sales 2018
Rationale for the materiality benchmark applied	We chose net 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, net 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 1, 11 and 13 in the consolidated financial statements. As at 31 December 2018 the group's goodwill balance amounted to € 467 million. Goodwill is tested at least annually, irrespective of whether there is any indication of impairment. For goodwill testing purposes, the recoverable amount is based on value in use which is determined by reference to discounted future net cash flows expected to be generated by the asset. Key assumptions used in the value-in-use calculations are discount rate, growth rate of terminal value, average global growth in 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 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 specialist, including comparison to economic and industry forecasts as appropriate. We also considered the appropriateness of the related disclosures provided in note 13 in the group financial statements.

Valuation of Property, Plant and Equipment

Refer to notes 1 and 12 in the consolidated financial statements.

As at 31 December 2018 the Group's Property, Plant and Equipment (PPE) amounted to € 2,659 million, which is 44% of the total assets and 97% of the total equity.

The group's business is very capital intensive and there are a lot of historical operative losses. Therefore 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 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 key controls in place to ensure the existence and appropriate valuation of Property, Plant and Equipment. Such controls include the authorization of additions, disposals and scrapings, the evaluation of the useful economic lives 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.

Valuation of Inventories

Refer to notes 1 and 21 in the consolidated financial statements.

Net inventories amount to € 1,555 million as at 31 December 2018.

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 necessary to make the sale. The most important commodity price risk for Outokumpu is caused by fluctuation in nickel and other alloy prices. The majority of stainless steel sales contracts include an alloy surcharge clause, with the aim of reducing the risk arising from the time difference between raw material purchase and product delivery. The risk is significant because the delivery cycle in production is longer than the alloy surcharge mechanism provides for. Thus, only the price for the products to be sold in near future is known. That is why a significant part of the future price for each product to be sold is estimated according to management's best knowledge in NRV calculations. Due to fluctuations in nickel and other alloy prices, the realized prices can deviate significantly from what has been used in NRV calculations on the closing date.

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 management's key 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.

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 transfer between the different systems, and we have accordingly designated this as a key audit matter.	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 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 these control weaknesses to management, and performed tests of detail to reduce the related risks of material misstatement to an acceptably low level.

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.

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 2018, the value of Outokumpu Oyj's subsidiary shares amounted to € 3,776 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. This matter is a significant risk of material misstatement referred to in Article 10(2c) of Regulation (EU) No 537/2014.	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 tested the key under-lying 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.

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 2 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.

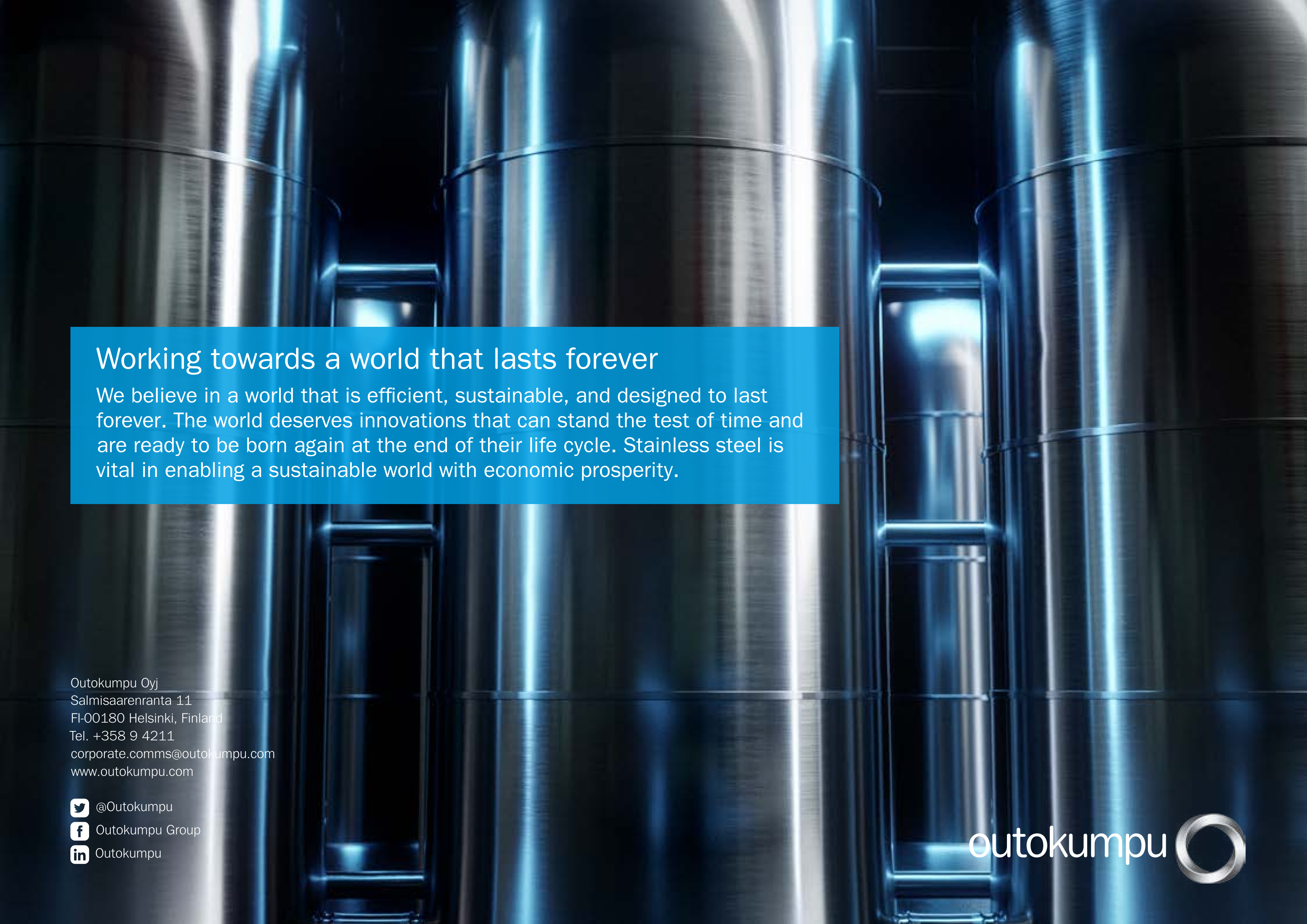
Helsinki 7 February 2019

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.

Outokumpu Oyj
Salmisaarenranta 11
FI-00180 Helsinki, Finland
Tel. +358 9 4211
corporate.comms@outokumpu.com
www.outokumpu.com

@Outokumpu
Outokumpu Group
Outokumpu

outokumpu