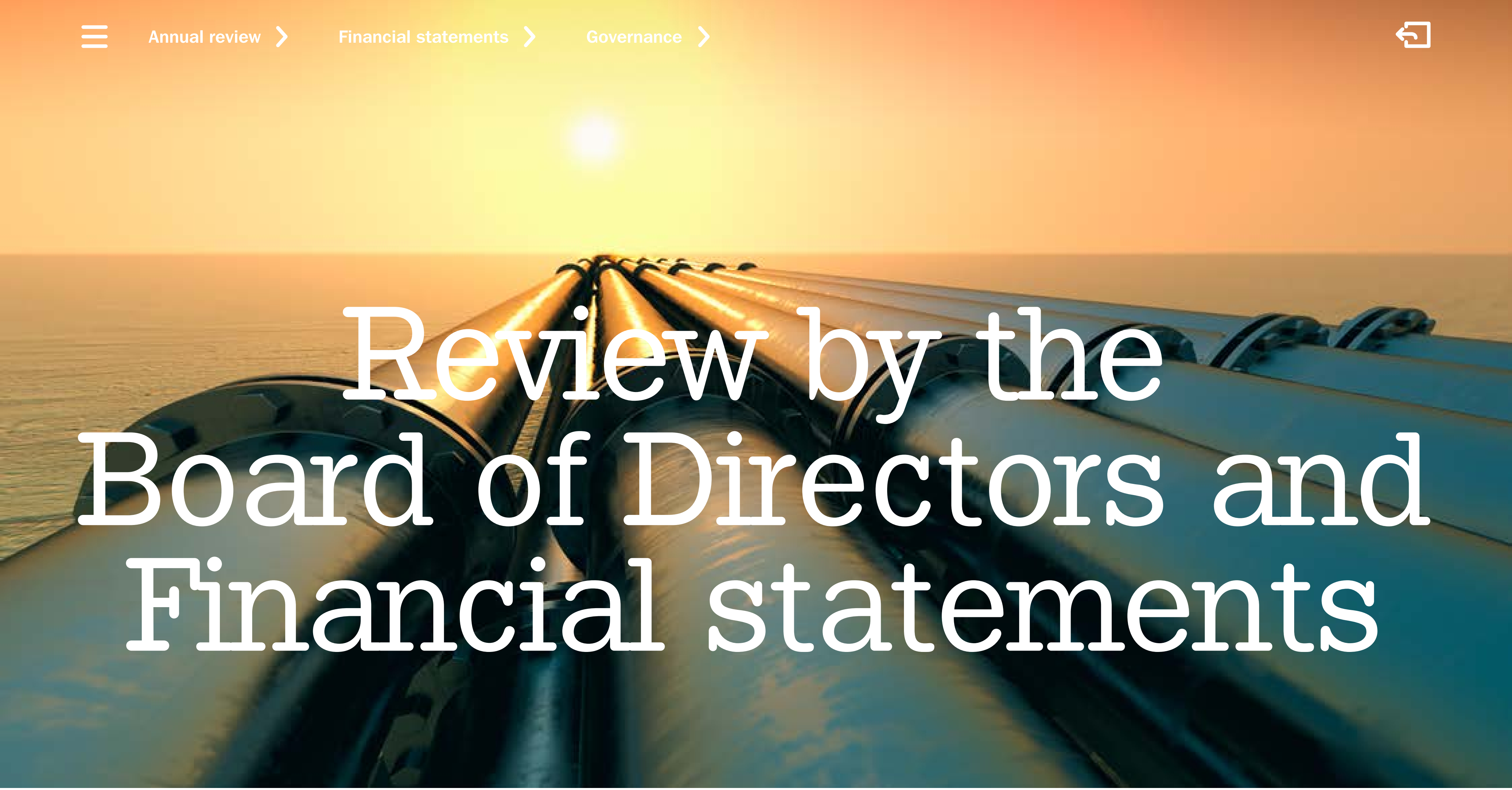

Review by the Board of Directors and Financial statements

CONTROLLED CONFIDENCE ■ When working within extremes, overconfidence can be a pitfall. But if you lack belief, it might be even worse. What separates our experts from the rest is complete command of their abilities, and knowledge of the possibilities of stainless steel.

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outokumpu
working towards a world that lasts forever

Review by the Board of Directors

The year 2017 was a successful year for Outokumpu. The company continued its strategy execution to become the best value creator in stainless steel by 2020. As an evidence, Outokumpu's adjusted EBITDA more than doubled to EUR 631 million compared to the previous year. While the profitability was supported by the market, the company also achieved tangible results in reducing its cost base and improving its efficiency and productivity. Outokumpu's financial position strengthened significantly and net debt decreased below EUR 1.1 billion. However, while the company has made solid progress towards its vision, it is clear that there is still more work to be done. In 2017, the company's performance was impacted by reliability issues, particularly in the ferrochrome operations, and hence, Outokumpu's primary focus for 2018 will be to improve the reliability of its operations.

Market development

Stainless steel demand

Global apparent stainless steel consumption[1] increased by 6.0% in 2017 compared to the previous year. APAC contributed with a growth of 6.5% followed by growth of 4.7% in the Americas and 4.6% in EMEA. Global real demand for stainless steel products reached 41.2 million tonnes in 2017, an increase of 5.5% from 39.1 million tonnes in 2016. The growth was most pronounced in the APAC region at 6.3%, while demand grew by 3.4% in EMEA and by 3.2% in the Americas. (Source: SMR January 2018)

In 2017, the real demand growth was strongest in Consumer Goods & Medical and ABC & Infrastructure end-use segments at 6.7% and 6.0%, respectively. Meanwhile, Automotive & Heavy Transport achieved growth of 4.5%, followed by growth of 3.7% in Chemical, Petrochemical & Energy and 3.0% in the Industrial & Heavy Industries segment. (Source: SMR January 2018)

EU cold rolled imports from third countries are expected to have reached a level of 27.6% of the total consumption in 2017, up from the average level of 24.6% in 2016. Imports from Malaysia, the US, India and Taiwan were growing, while the volumes from South Korea, Vietnam and Brazil decreased. (Source: EUROFER January 2018)

The average cold rolled imports into the US are expected to have reached 22.5% of the total US consumption in 2017, lower than the average of 23.3% in 2016. Chinese imports decreased significantly, while imports from almost all other major exporting countries increased. (Source: American Iron & Steel Institute, November 2017)

Price development of alloying metals

The nickel price was trending downwards in the first half of 2017 due to the expectations of increased ore availability from both Indonesia and the Philippines, as well as cyclically slowing apparent demand from the Chinese stainless steel sector. In the second half of the year, the price was underpinned by increased investor interest, weaker US dollar and the bright outlook for stainless steel demand as a result of global economic recovery. Prices hit the highest level of the year of USD 12,830/tonne in early November, before easing slightly to around USD 12,000/tonne levels at the end of the year. The average price of the year of USD 10,411/tonne was 8.5% higher than the average of USD 9,600/tonne in 2016.

The European benchmark price for ferrochrome increased to USD 1.65/lb in the first quarter of 2017 as a result of weak availability of ore as well as strong demand of ferrochrome due to increased stainless steel production in China. For the second and third quarters, the ferrochrome price decreased to USD 1.54/lb and USD 1.10/lb, respectively, as a result of improved availability and declined demand of ferrochrome in China. Prices increased to USD 1.39/lb in the fourth quarter, but retreated to USD 1.18/lb for the first quarter of 2018, following the apparent supply and demand situation of ferrochrome in China.

Business areas

Europe

The overall stainless steel market was robust in 2017. Underlying stainless steel demand was particularly strong during the first half of the year and started to soften in the summer. During the third quarter, demand started to gradually strengthen again. Base prices increased from 2016 with the CRU reported European base price averaging to EUR 1,123/tonne, EUR 60/tonne higher than in 2016. The share of import volumes in the European market increased during the first half of the year and stabilized at higher levels during the second half.

Europe's stainless steel deliveries amounted to 1,582,000 tonnes in 2017. Deliveries were lower than 1,625,000 tonnes in 2016 which included deliveries of 65,000 tonnes from the Benrath mill that was closed in September 2016. However, business area Europe's sales increased by 13.5% to EUR 4,455 million (EUR 3,927 million[2]) due to higher prices resulting from a strong market and improved product mix. The average base price in the business area's coil product deliveries was EUR 70/tonne higher than in 2016.

Business area Europe's full-year adjusted EBITDA improved by EUR 241 million to EUR 615 million (EUR 374 million). In addition to the support from ferrochrome price particularly during the first half of the year, earnings were further supported by solid progress in improved cost efficiencies and commercial initiatives. Furthermore, higher base prices had a positive impact on profitability. However, the positive impacts were partially offset by technical issues and maintenance of a ferrochrome furnace, resulting in lower ferrochrome production volume of 415,000 tonnes in 2017 compared to 469,000 tonnes in 2016. Further negative impacts arose from higher coke and electricity prices, as well as higher maintenance costs, raw material-related inventories and metal derivatives had a negative impact of EUR 24 million on the result (negative impact of EUR 1 million).

[1] Apparent consumption = real demand + stock change

[2] Figures in parentheses refer to year 2016, unless otherwise stated.

Americas

The US stainless steel market was healthy overall in 2017. The demand remained strong throughout the year and the base prices were on an increasing trend for the first ten months of the year, until a clear decline in prices in November and December. The CRU reported US base price averaged USD 1,374/tonne, USD 88/tonne higher compared to 2016. The share of import volumes in the US market remained stable at reasonably modest levels during the year.

Stainless steel deliveries increased in 2017 to 742,000 tonnes compared to 690,000 tonnes in 2016. Driven by higher deliveries, the Americas' sales increased to EUR 1,546 million (EUR 1,325 million). The average base price in the business area's coil product deliveries was USD 60/tonne higher compared to 2016.

In 2017, business area Americas achieved a tangible improvement in profitability and recorded a positive adjusted EBITDA of EUR 21 million, a clear improvement compared to 2016 (EUR –27 million). The improved performance was a result of higher deliveries and base prices, as well as increased operational efficiency with clearly decreased variable and SG&A costs. Raw material-related inventories and metal derivatives had a positive impact of EUR 7 million (EUR 10 million) on the result in 2017.

Long Products

During 2017, underlying demand for long products grew both in Europe and in the US compared to the previous year, driven particularly by Automotive, Oil & Gas and Aerospace segments. Prices remained stable throughout the year and started to gradually increase towards the end of the year. Import pressure in the US remained relatively high due to the lack of antidumping duties for long products.

Deliveries in 2017 increased to 264,000 tonnes compared to 245,000 tonnes in 2016 driven by strong demand. The product mix improved during the year. The adjusted EBITDA amounted to EUR 16 million, a clear improvement compared to EUR –1 million in 2016. The net impact of raw material-related inventories and metal derivatives amounted to EUR 3 million (EUR –1 million).

Financial performance

Deliveries

For 2017, stainless steel deliveries remained flat at 2,448,000 tonnes (2,444,000 tonnes). Deliveries increased clearly in business area Americas and Long Products but decreased in business area Europe.

Deliveries

1,000 tonnes	2017	2016	2015
Cold rolled	**1,713**	1,731	1,767
White hot strip	**428**	425	346
Quarto plate	**79**	100	102
Long products	**70**	65	63
Semi-finished products	**262**	247	222
Stainless steel [1]	**157**	121	95
Ferrochrome	**105**	126	128
Tubular products	**1**	1	9
Total deliveries	**2,553**	2,570	2,509
Stainless steel deliveries	**2,448**	2,444	2,381

[1] Black hot band, slabs, billets and other stainless steel products.

Sales and profitability

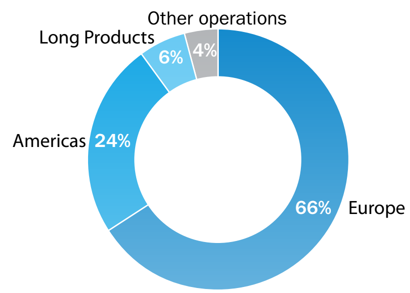
Sales amounted to EUR 6,363 million in 2017, 11.8% higher than in 2016 (EUR 5,690 million). The increase was mainly a result of higher alloy surcharges and average base prices in both Europe and the Americas.

Sales

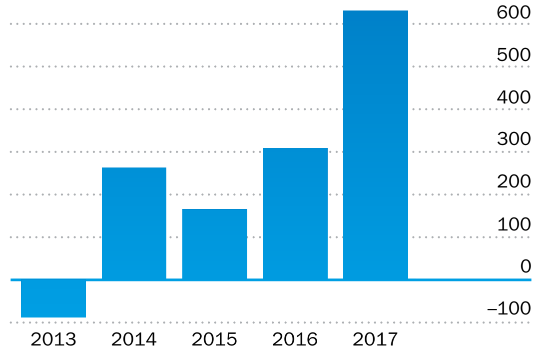
€ million	2017	2016	2015
Europe	**4,455**	3,927	4,318
Americas	**1,546**	1,325	1,214
Long Products	**591**	487	551
Other operations	**507**	567	974
Intra-group sales	**–737**	–615	–673
The Group	**6,363**	5,690	6,384

The profitability improved significantly in 2017, with adjusted EBITDA more than doubling to EUR 631 million (EUR 309 million). This was primarily a result of higher ferrochrome

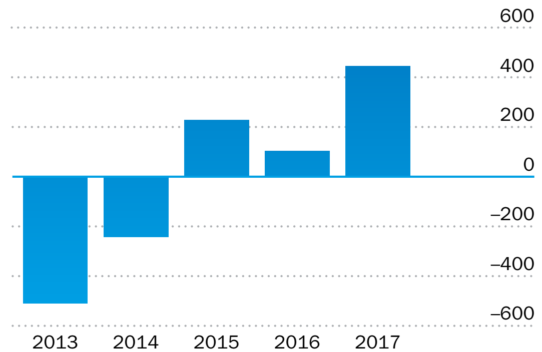
Sales, € 6,363 million



Adjusted EBITDA, € million



EBIT, € million



and base prices, as well as improved cost efficiency. Raw material-related inventory and metal derivative losses for the full year 2017 were EUR 20 million (gains of EUR 11 million).

Profitability

€ million	2017	2016	2015
Adjusted EBITDA			
Europe	**615**	374	312
Americas	**21**	–27	–120
Long Products	**16**	–1	10
Other operations and intra-group items	**–22**	–37	–37
Group adjusted EBITDA	**631**	309	165
Adjustments	**31**	47	366
EBITDA	**663**	355	531
EBIT	**445**	103	228
Share of results in associated companies and joint ventures	**9**	5	49
Financial income and expenses	**–127**	–121	–149
Result before taxes	**327**	–13	127
Income taxes	**64**	156	–41
Net result for the financial year	**392**	144	86
EBIT margin, %	**7.0**	1.8	3.6
Return on capital employed, %	**11.3**	2.6	5.3
Earnings per share, €	**0.95**	0.35	0.23
Diluted earnings per share, €	**0.90**	0.35	0.23
Net cash generated from operating activities	**328**	389	–34

Income taxes for 2017 include deferred tax income of EUR 125 million (EUR 189 million) related to previously unrecognized deferred tax assets mainly in Germany. For the full year 2017, the net result amounted to EUR 392 million (EUR 144 million) and the earnings per share was EUR 0.95 (EUR 0.35).

Outokumpu has remaining tax loss carry forwards of EUR 1,922 million mainly in the US for which deferred tax assets have not been booked. They can be recognized as deferred tax income when the company starts generating sufficient taxable income in respective countries.

Cash flow

Operating cash flow amounted to EUR 328 million in 2017 (EUR 389 million), negatively impacted by an increase of EUR 180 million in working capital (decrease of EUR 307 million).

Financial position

Cash and cash equivalents were EUR 112 million at the end of 2017 (EUR 204 million) and overall liquidity reserves were approximately EUR 0.8 billion (EUR 1.0 billion). Overall liquidity reserves decreased mainly due to a cancellation of EUR 30 million long-term credit facility, a redemption of EUR 250 million notes due in 2019, and a partial redemption of EUR 47.5 million of notes due in 2021.

Net debt decreased to EUR 1,091 million compared to EUR 1,242 at the end of 2016. Gearing decreased to 40.1% (51.4%).

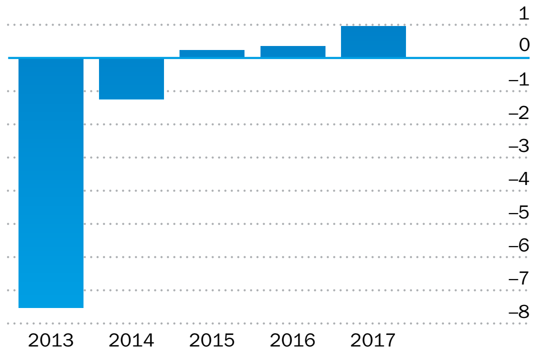
During 2017, net financial expenses were relatively flat at EUR 127 million (EUR 121 million). Interest expenses decreased to EUR 92 million (EUR 105 million).

Key financial indicators on financial position

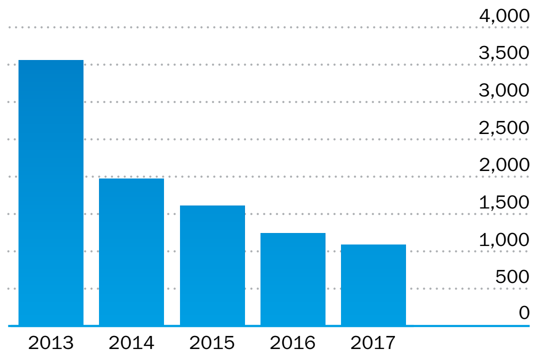
€ million	2017	2016	2015
Net debt			
Non-current debt	**698**	987	1,249
Current debt	**505**	458	547
Cash and cash equivalents	**–112**	–204	–186
Net debt	**1,091**	1,242	1,610
Shareholders' equity	**2,721**	2,416	2,329
Return on equity, %	**15.4**	6.4	3.9
Debt-to-equity ratio, %	**40.1**	51.4	69.1
Equity-to-assets ratio, %	**46.3**	40.4	39.6
Interest expenses	**92**	105	130

In order to decrease interest expenses further, Outokumpu prematurely redeemed its 6.625% senior secured fixed rate notes due in 2019. The notes with a total nominal amount of EUR 250 million were redeemed in full in December 2017. In addition, Outokumpu redeemed partially its outstanding EUR 250 million senior secured notes due in 2021.

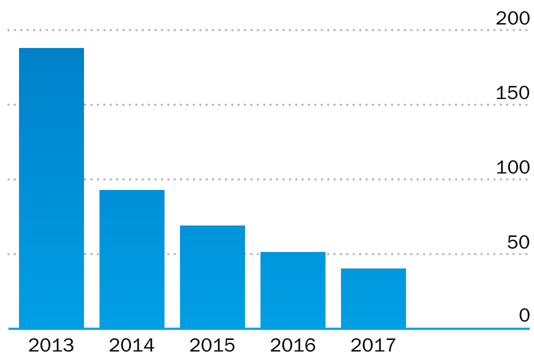
Earnings per share, €



Net debt, € million



Debt-to-equity ratio, %



The redemptions were done in June and December 2017 with 10% of the outstanding amount each time. As a consequence, the total aggregate outstanding nominal amount of the notes due in 2021 was EUR 203 million at the end of December 2017. The interest rate for the notes is 7.25%.

Furthermore, Outokumpu signed an amendment and extension of its committed syndicated revolving credit facility in December 2017 and agreed a partial security release with its key lenders. The restated facility of EUR 650 million has its maturity in May 2021 and will be used for general corporate purposes.

Outokumpu is rated by Moody's Investors Service. In November 2017, Moody's upgraded Outokumpu's issuer corporate family rating to B1 from the previous rating of B2 and its probability default rating to B1-PD from the previous B2-PD. Moody's also upgraded the ratings for Outokumpu's senior secured notes to Ba3 from the previous rating of B1. The outlook of all ratings is stable.

Capital expenditure

Capital expenditure was EUR 174 million in 2017 compared to EUR 164 million in 2016.

Capital expenditure

€ million	**2017**	2016	2015
Europe	**104**	101	96
Americas	**18**	17	19
Long Products	**8**	8	7
Other operations	**44**	37	32
The Group	**174**	164	154
Depreciation and amortization	**216**	226	302

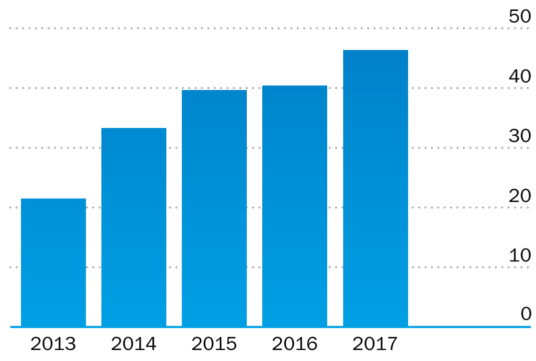
Non-financial development at Outokumpu

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. Outokumpu produces stainless steel, which is its biggest contribution 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. These properties have ensured that stainless steel consumption has been growing more rapidly than any other metal in recent decades (source: CRU, August 2017).

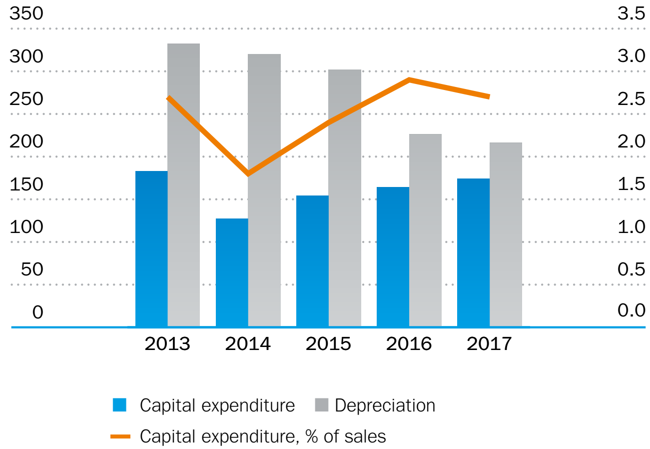
87.0% of the raw material used in Outokumpu's stainless steel production is recycled. By converting scrap and metal waste into new products the company also protects virgin resources. Throughout the process, Outokumpu aims to minimize the environmental impact of its production. At the end of its long life-cycle, stainless steel is fully recyclable, without any loss of quality. Outokumpu's business is therefore based on a circular economy. 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 (76%) and ferritic (18%) standard and specialty stainless steels with the remaining 3% of duplex and 3% of other stainless steel grades. In 2017, Outokumpu sold 55% of produced steel directly to end-user customers (architecture, building and construction and infrastructure, consumer goods and medical, industrial and heavy industries, chemical, petrochemical and energy industry, and automotive and heavy transport) and 45% to distributors and processors such as re-rollers and tube makers. Outokumpu's production process is very integrated, starting from the company's own chrome mine for the main raw material of stainless steel, ferrochrome operations, melting, hot rolling and cold rolling, all the way to finishing and services. In this integrated value chain, each business area, mill, and function has a clear role. Outokumpu's strengths include efficient procurement and access to key raw materials, an efficient and integrated production set-up, world-class supply chain management, a leading product portfolio and quality, established and balanced customer base across all key markets, and leading technical R&D and expertise.

Equity-to-assets ratio, %



Capital expenditure and depreciation, € million



Policies and principles of sustainability management

The most important policies guiding Outokumpu's operations are the company's Ethical Statement, Code of Conduct, and Policy on Environment, Health, Safety and Quality. These policies are available at www.outokumpu.com/en/sustainability/corporate-responsibility/. Outokumpu also follows 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 of 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, and to meet the company's supplier requirements.

Outokumpu's Ethical Statement describes ethical principles of human rights and dignity, the future of the planet, good corporate citizenship, and a safe and healthy workplace. Outokumpu's Code of Conduct defines the common way of operating in the Group, built on the equal treatment of all people, and sets principles for legal compliance and ethical conduct. In practice, this means keeping each other safe at work, treating everyone with respect, complying with laws, doing what is ethically right, and conducting business in an environmentally sustainable way. Outokumpu's Code of Conduct sets zero tolerance for corrupt practices and requires compliance with antitrust and competition laws. Outokumpu has also issued an Anti-Corruption Instruction providing more detailed guidance on responsible business practices. Outokumpu respects human rights and promotes diversity, and condemns discrimination and intolerance of any kind. 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.

Outokumpu's Policy on Environment, Health, Safety and Quality describes the company's commitment to continuous improvement in these fields, the company's corporate responsibility, compliance with legislation in all areas the company operates in, and the fulfilment of stakeholder requirements to which the company subscribes.

In addition to the EHSQ policy, Outokumpu has strict guidelines for safety through the Outokumpu Safety Principles and Health and Safety Standard. Outokumpu provides its employees with a healthy and safe working environment. The health of personnel and their well-being at work are important preconditions for Outokumpu's success in day-to-day operations as well as in its long-term competitiveness. Outokumpu also believes that all accidents are preventable and therefore works towards a goal of zero accidents.

Corporate statements, policies and instructions serve as the formal back-bone of the Outokumpu operating model in governance, risk, and compliance. Policies and instructions are implemented through internal communication, mandatory training and internal control mechanisms. In 2017, Outokumpu initiated a governance, risk and compliance project to further enhance and develop internal control processes. As part of this project, Outokumpu is implementing an operating model that emphasizes the three lines of defense model. Businesses and operation forms the first line of defense based on the Group policies and instructions. Business support functions monitor and facilitate compliance as the second line of defense, and internal and external audits form the third line of defense providing independent assurance. 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. In addition, annual environmental audits are performed based on an internal risk assessment. Environmental compliance screenings of suppliers are carried out regularly. 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.

Long-term sustainability targets

Outokumpu's corporate responsibility 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
- Reduction in direct and indirect CO_2 emissions intensity by 14% by 2023, compared to the baseline of 2014–2016 (including upstream emissions from the supply chain)
- Top decile position in safety in the industry by 2020 and long-term target of zero incidents.

Outokumpu follows the Science Based Target Initiative to decouple growth and emissions. Targets adopted by companies to reduce greenhouse gas emissions are considered "science-based" if they are in line to limit the temperature increase in the atmosphere to 2 degrees by 2050, compared to the pre-industrial era. Outokumpu's emissions intensity trajectory includes the upstream emissions from supply 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 direct and indirect energy, dust emissions into the air, water discharges from production plants, and waste created in the production process.

Outokumpu uses extremely 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 by-products from its production (such as slag) outside the company – for example, in road construction, concrete production and water treatment – to reduce the amount of landfilled waste and to reduce the use of virgin materials. On top of production waste, tailing sand from mining is the most significant waste item to be deposited in the mine site.

In 2017, Outokumpu maintained the level of recycled content at 87.0% (2016: 87.1% and 2015: 87.2%). The cumulative increase in energy efficiency was 10.4% (2016: 9.1% and 2015: 7.6%) 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 only recycled content is slightly behind. In 2017, Outokumpu maintained CO_2 intensity at the level of the baseline 2014–2016. As some ferrochrome was externally bought because of production interruptions, the upstream emissions increased. This could be compensated by Outokumpu's own excellent energy efficiency, which also resulted in a decrease of total energy consumption compared to 2016, even though stainless steel production increased by more than 3%. Landfilled waste could be reduced, as the use of slag increased.

All Outokumpu's sites have environmental permits that set the basic framework for production operations. In 2017, 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 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 2017 and will be sufficient for 2018. 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 impacts

	2017	2016	2015
Climate change			
Direct CO_2 emissions, tonnes	**1,203,614**	1,208,918	1,231,843
Indirect CO_2 emissions (electricity), tonnes	**979,394**	901,750	1,016,234
Indirect CO_2 emissions (upstream), tonnes	**3,136,946**	2,503,880	2,491,876
Direct and indirect CO_2 emission intensity, tonnes per tonne stainless steel [1]	**1.760**		
[1] 2014–2016 baseline 1.764			
Energy			
Fuel consumption, TJ	**11,839**	11,964	11,460
Secondary energy (electricity) consumption, TJ	**16,326**	16,733	16,116
thereof renewable or low carbon sources, %	**60.0**	67.3	62.9
Energy intensity, GJ per tonne stainless steel	**9.3**	9.8	10.5
Slag by-products			
Slag used of steel and FeCr production, tonnes	**2,280,862**	1,531,326	1,502,716
Use rate of slag including slag from ferrochrome production, %	**91.1**	90.2	92.0
Waste			
Total waste from stainless steel production, tonnes	**423,383**	540,150	407,996
Deposited tailings from mining, tonnes	**784,585**	856,245	830,874
Mining waste intensity, tonnes per tonne concentrated ore	**0.81**	0.80	0.88
Total landfill waste intensity, tonnes per tonne stainless steel	**0.361**	0.406	0.423

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. In 2017, safety developed in line with the target, and TRIFR was reduced to 4.4 against the target of less than 8. During the year, Outokumpu started a behavioral safety training program at selected production sites in Europe and the Americas, with plans to train all Outokumpu employees in 2018. Outokumpu also established Group-wide Cardinal Safety Rules – ten fundamental rules set to ensure the safety of everyone at Outokumpu. Covering the most severe breaches of safety behavior, these common rules form the foundation of safety for all Outokumpu employees, contractors and visitors.

Outokumpu's headcount decreased by 459 during the year and totaled 10,141 at the end of December 2017 (2016: 10,600 and 2015: 11,002). The decrease was driven primarily by divestments of quarto plate mill in New Castle, Indiana, US and pipe plant in Wildwood, Florida, US, as well as other continued restructuring and efficiency measures. All in all, Outokumpu plans to reduce its personnel to a level of 9,300 in the coming years. Total wages and salaries amounted to EUR 549 million in 2017 (2016: EUR 562 million, 2015: EUR 585 million). Indirect employee benefit expenses totaled EUR 135 million in 2017 (2016: EUR 151 million, 2015: EUR 177 million).

Key social indicators

	2017	2016	2015
Diversity			
Employees			
male, %	**86**	84	86
female, %	**14**	16	14
Board of Directors			
male, %	**71**	67	75
female, %	**29**	33	25
Safety			
Total recordable incident frequency rate, per million working hours	**4.4**	8.7	N/A

In 2017, Outokumpu recorded nine alleged incidents of potential misconduct. 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 2017 two compliance-related e-learning courses. The Code of Conduct e-learning course was mandatory for white-collar employees and achieved a completion rate of 98%. The second Competition Law compliance training was directed at management, sales, procurement, and business support functions, and obtained a completion rate of 99%.

Outokumpu's governing bodies are the Annual General Meeting of Shareholders, the Board of Directors, and the President and Chief Executive Officer. All the members of the Board of Directors in 2017 were independent of the company and of its significant shareholders.

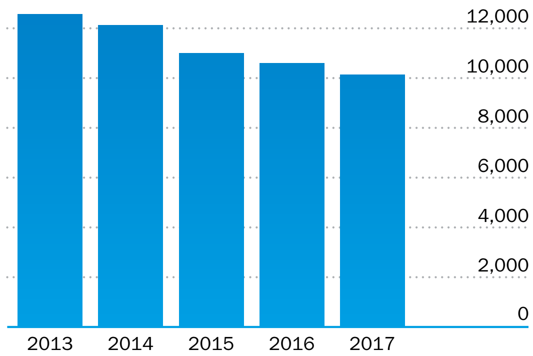
Research and development

Outokumpu's research and development (R&D) involves process, product and application development. R&D works closely together with sales, operations and customers to align 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 2017, Outokumpu's R&D expenditure totaled EUR 13 million, 0.2% of net sales (2016: EUR 20 million and 0.4%, 2015: EUR 23 million and 0.4%). During the year, the company implemented a new IT solution for R&D project management, which improved R&D efficiency substantially. Another major event boosting R&D effectiveness was the inauguration of the new R&D premises in Krefeld.

The process development teams continued to focus on supporting the operations and in transferring technological knowhow between Outokumpu's operational units. The major achievement of the product development was the launch of Outokumpu Ultra Alloy 825. Outokumpu stands out as the only major stainless steel company that can offer this nickel-based alloy in coils up to width of 1,500 mm. Another highlight of 2017 was the prize awarded to patented weldable sandwich

Personnel on December 31



technology in 15th Materialica Design and Technology Awards 2017.

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 2017 was in securing the steps in improving Outokumpu's cost competitiveness as well as continuous improvement of risk management, including actions in safety, securing liquidity, managing project risks and improving the efficiency and controls of Outokumpu's operations as part of large business transformation program aiming to renew fragmented IT systems going forward. Outokumpu continued its systematic fire safety and loss prevention audit programs, which also included machinery breakdown loss prevention. In total, some twenty fire safety and machinery breakdown loss prevention audits were carried out in 2017 using in-house expertise in cooperation with external advisors. The main realized risks in last year were a fatal accident to a contractor at Degerfors, Sweden in May, risks related to production stability, especially in ferrochrome, and inadequate profitability in the business area Americas.

Strategic and business risks

Outokumpu's key strategic and business risks currently include: risks and uncertainties in implementing the announced vision, including measures to improve operational reliability, drive competitiveness and further improve financial performance; 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 and availability of financing; fluctuations in exchange rates affecting the global competitive environment in stainless; and the risk of litigation or adverse political action affecting trade.

Operational risks

Operational risks 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. 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. 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 cyber security.

Environmental risks

The main environmental business risks for Outokumpu are related to emissions trading schemes and new environmental and consumer protection demands and include changes in environmental legislation and their impact on Outokumpu's competitive position, and 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 environmental liabilities and risks at closed mines and sites.

Safety- and personnel-related risks

The main risks related to safety, personnel and compliance are the risk of fatalities and serious injuries to own employees and contractors having a significant impact on Outokumpu's safety culture and the company's reputation as an employer; the risk of fatalities or severe incidents; the loss of key individuals or other employees who have specific knowledge of, or relationships with, trade customers in markets in which Outokumpu operates could have significant impacts on Outokumpu's business; and the risk of being unable to attract, retain, motivate, train, and develop qualified employees at all levels, which could have a material adverse effect on Outokumpu's business, financial condition, and operational results.

Risks related to compliance, crime and reputational harm

Outokumpu operates globally and its activities span multiple jurisdictions and complex regulatory frameworks at a time of increased enforcement activity and enforcement initiatives globally in areas such as competition law, anti-corruption and bribery, anti-money laundering, data protection (including EU GDPR compliance) and trade restrictions, including sanctions. Outokumpu also faces the risk of fraud by its employees, 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 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; 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; risks and uncertainties related to market development in stainless steel, ferrochrome and certain critical supplies as well as competitor actions; the risk of changes in metal prices impacting cash tied up in working capital; changes in the prices of electrical power, fuels, ferrochrome, nickel, iron and molybdenum; currency developments affecting the euro, the US dollar, the Swedish krona, and the British pound; fair value of shareholdings; dependencies on certain critical suppliers; 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 may have a significant adverse impact on Outokumpu's overall business and access to financial markets.

Significant legal proceedings

Dispute over invention rights, Outotec vs. Outokumpu

Outokumpu and Outotec Oyj had a dispute since 2013 relating to innovations on ferroalloy technology. On January 9, 2017, the companies reached an agreement whereby both parties withdrew their claims. Outotec was granted an exclusive right to sell and license the relevant innovations and technology against an agreed license fee payable to Outokumpu. Outokumpu retains the right to use the innovations in its own business.

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 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 Bilbao court of first instance in Spain has accepted the claim of EUR 20 million brought against Outokumpu and the two other companies. Outokumpu and the two other companies have appealed the court's decision.

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 former tax installments paid by Thyssen-Krupp Italia in 2006 which have not been properly settled towards AST in the following years. The matter is currently pending in court.

Antitrust investigation in Germany

On September 22, 2016, Outokumpu's subsidiary in Germany (Outokumpu Nirosta GmbH) received a letter from the German Federal Cartel Office stating that the company has been included in an ongoing investigation of possible infringements of antitrust laws in the past. Following an internal investigation, Outokumpu's view is that the official investigation on it is without merit.

Shares and shareholders

During 2017, the Outokumpu share price peaked at EUR 10.05 and was EUR 6.61 at its lowest (2016 high/low: EUR 8.51/ EUR 2.08). The share price closed at the end of the year at EUR 7.74, marking a decrease of 9% from the closing price of 2016 (Dec 31, 2016: EUR 8.51). At the end of 2017, the company's market capitalization was EUR 3,223 million, compared to EUR 3,541 million at the previous year's end. In total, 1,022 million Outokumpu shares were traded on Nasdaq Helsinki during 2017, representing a value of EUR 8,295 million.

Outokumpu's share capital was unchanged at EUR 311 million at the end of 2017. The total number of shares was 416,374,448 and the average number of shares outstanding in 2017 was 412,363,204.

Between February 6, 2017, and February 17, 2017, Outokumpu repurchased 2,000,000 of its own shares through public trading at Nasdaq Helsinki intending to use them for the reward under the share-based payment plans. On December 31, 2017, Outokumpu held 3,702,899 of its own shares, i.e. treasury shares.

Management shareholdings and share based incentive programs

On December 31, 2017, the members of the Board of Directors and the members of the Outokumpu Leadership Team (OLT) altogether held 1,915,835 shares, or 0.5% 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 2017, after deductions for applicable taxes, a total of 813,066 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 2016–2018 and 2017–2019 and their continuation for the period 2018–2020 was already approved by the Board of Directors in December 2017. The Performance Share Plan for the period 2017–2019 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:
www.outokumpu.com/en/investors/governance.

Annual General Meeting

The Annual General Meeting of Outokumpu Oyj was held on March 21, 2017. The Meeting approved the financial statements and discharged the management of the company from liability for the financial year 2016. The Meeting decided that a dividend of 0.10 euro per share be paid for 2016. 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 amendments in the articles of association and the proposals of the Nomination Board regarding the members of the Board of Directors and their remuneration.

The Annual General Meeting decided that the Board of Directors would consist of eight members. Markus Akermann, Roberto Gualdoni, Kati ter Horst, Heikki Malinen, Saila Miettinen-Lähde, Jorma Ollila and Olli Vaartimo of the previous members of the Board of Directors were re-elected, and Eeva Sipilä was elected as a new member for the term of office ending at the end of the next Annual General Meeting. The Annual General Meeting re-elected Jorma Ollila as the Chairman and Olli Vaartimo as the Vice Chairman of the Board of Directors.

Changes in the Board of Directors and the Outokumpu Leadership Team

Saila Miettinen-Lähde resigned from Outokumpu's Board of Directors as of June 9, 2017. The Board of Directors continues to operate with seven members until the next Annual General Meeting.

Outokumpu Chief Technology Officer Pekka Erkkilä retired as of February 2, 2017. He continues to support the company in selected areas and to represent Outokumpu's interest in for example Fennovoima and the Association of Finnish Steel and Metal Producers.

In March 2017, Reeta Kaukiainen joined Outokumpu serving as Executive Vice President, Communications and Investor Relations and a member of the Outokumpu Leadership Team. Reeta joined Outokumpu from Accenture, where she led its communications and marketing activities in Finland.

In December 2017, Maciej Gwozdz, member of the Outokumpu Leadership Team, was appointed President of Business Area Europe as of January 1, 2018. He took over the position from CEO Roeland Baan who was leading the business area since 2016.

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, 2017 the four largest shareholders of Outokumpu were Solidium Oy, Varma Mutual Pension Insurance Company, The Social Insurance Institution of Finland and Ilmarinen Mutual Pension Insurance Company, 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
- Tuula Korhonen, Investment Director at The Social Insurance Institution of Finland
- Timo Ritakallio, President and CEO at Ilmarinen Mutual Pension Insurance Company

The Nomination Board submitted its proposals to Outokumpu's Board of Directors on January 31, 2018 at the latest. The proposals were published as a part of the notice to the Annual General Meeting.

Board of Directors' proposal for profit distribution

The Board of Directors updated Outokumpu's dividend policy on January 31, 2018. According to the new policy, the dividend pay-out ratio throughout a business cycle shall be in a range of 30–50 percent of net income.

According to the parent company's financial statements on December 31, 2017 distributable funds totalled EUR 2,413 million, of which retained earnings were EUR 289 million.

The Board of Directors is proposing to the Annual General Meeting to be held on March 22, 2018 that a dividend of EUR 0.25 per share is paid for 2017 and the remaining distributable funds are allocated to retained earnings.

Events after the reporting period

Outokumpu has changed its segment structure as of January 1, 2018 by separating Ferrochrome operations from Business Area Europe as a new reportable segment. In the new structure, Outokumpu has four reportable segments – Europe, the Americas, Long Products and Ferrochrome. Outokumpu's financial reporting will be changed accordingly as of the first-quarter interim statement 2018.

Group key figures

		2017	2016	2015	2014	2013
Scope of activity						
Sales	€ million	**6,363**	5,690	6,384	6,844	6,745
– change in sales	%	**11.8**	–10.9	–6.7	1.5	48.6
– exports from and sales outside Finland, of total sales	%	**96.5**	96.4	96.6	96.7	96.9
Capital employed on Dec 31 [1]	€ million	**3,929**	3,816	4,133	4,072	4,265
Capital expenditure [2]	€ million	**174**	164	154	127	183
– in relation to sales	%	**2.7**	2.9	2.4	1.8	2.7
Depreciation and amortization	€ million	**216**	226	302	320	332
Impairments	€ million	**2**	26	1	27	13
Research and development costs	€ million	**13**	20	23	23	26
– in relation to sales	%	**0.2**	0.4	0.4	0.3	0.4
Personnel on Dec 31 [3]		**10,141**	10,600	11,002	12,125	12,561
– average for the year [4]		**10,485**	10,977	11,833	12,540	13,150
Profitability						
Adjusted EBITDA	€ million	**631**	309	165	263	–87
EBITDA	€ million	**663**	355	531	104	–165
EBIT	€ million	**445**	103	228	–243	–510
– in relation to sales	%	**7.0**	1.8	3.6	–3.6	–7.6
Result before taxes	€ million	**327**	–13	127	–459	–822
– in relation to sales	%	**5.1**	–0.2	2.0	–6.7	–12.2
Net result for the financial year	€ million	**392**	144	86	–439	–1,003
– in relation to sales	%	**6.2**	2.5	1.4	–6.4	–14.9
Return on equity [1]	%	**15.4**	6.4	3.9	–21.8	–41.4
Return on capital employed [1]	%	**11.3**	2.6	5.3	–5.8	–10.3

		2017	2016	2015	2014	2013
Financing and financial position						
Net debt	€ million	**1,091**	1,242	1,610	1,974	3,556
– in relation to sales	%	**17.1**	21.8	25.2	28.8	52.7
Net financial expenses	€ million	**127**	121	149	223	310
– in relation to sales	%	**2.0**	2.1	2.3	3.3	4.6
Interest expenses	€ million	**92**	105	130	141	210
– in relation to sales	%	**1.5**	1.9	2.0	2.1	3.1
Net debt to Adjusted EBITDA		**1.7**	4.0	9.8	7.5	neg.
Share capital	€ million	**311**	311	311	311	311
Total equity	€ million	**2,721**	2,416	2,329	2,132	1,891
Equity-to-assets ratio	%	**46.3**	40.4	39.6	33.3	21.5
Debt-to-equity ratio	%	**40.1**	51.4	69.1	92.6	188.0
Net cash generated from operating activities [5]	€ million	**328**	389	–34	–126	34

[1] Key figure definition changed in 2016. Figures for 2015 have been restated. Figures for 2014 and 2013 have not been restated.

[2] Capital expenditure for 2014 and 2013 presented for continuing operations.

[3] Personnel reported as headcount. Year 2013 reported for continuing operations.

[4] Years 2014 and 2013 reported for continuing operations.

[5] Cash flows for 2014 and 2013 presented for continuing operations.

Reconciliation of key financial figures

Key figure	Definition of the key figure or source in the consolidated financial statements		2017	2016
Sales	Consolidated statement of income	€ million	**6,363**	5,690
– change in sales	Comparison to previous year's sales	%	**11.8**	–10.9
Sales by destination to Finland	Note 3. Segment information	€ million	**224**	204
Exports from and sales outside Finland	Sales – Sales by destination to Finland	€ million	**6,139**	5,486
– exports from and sales outside Finland, of total sales	Comparison to sales	%	**96.5**	96.4
Depreciation and amortization	Note 6. Income and expenses	€ million	**216**	226
Impairments	Note 6. Income and expenses and Note 8. Financial income and expenses	€ million	**2**	26
Research and development costs	Consolidated statement of income	€ million	**13**	20
– in relation to sales	Comparison to sales	%	**0.2**	0.4
Adjusted EBITDA	EBITDA – Items classified adjustments to EBITDA	€ million	**631**	309
Adjustments to EBITDA	Note 6. Income and expenses	€ million	**31**	47
EBITDA	EBIT before depreciation, amortization and impairments in Note 6. Income and expenses	€ million	**663**	355
EBIT	Consolidated statement of income	€ million	**445**	103
– in relation to sales	Comparison to sales	%	**7.0**	1.8

Key figure	Definition of the key figure or source in the consolidated financial statements		2017	2016
Capital employed is a sum of:				
Total equity	Consolidated statement of financial position	€ million	**2,721**	2,416
Net debt	Defined in the next page	€ million	**1,091**	1,242
Defined benefit and other long-term employee benefit obligations	Consolidated statement of financial position	€ million	**337**	356
Net interest rate derivative liabilities	Note 20. Fair values and nominal amounts of derivative instruments	€ million	**3**	5
Net accrued interest expenses	Note 28. Trade and other payables	€ million	**6**	11
Less:				
Net assets held for sale	Consolidated statement of financial position	€ million	**–**	25
Defined benefit plan assets	Consolidated statement of financial position	€ million	**70**	45
Loans receivable	Note 22. Trade and other receivables	€ million	**–**	6
Available-for-sale financial assets	Consolidated statement of financial position	€ million	**68**	53
Investments at fair value through profit or loss	Consolidated statement of financial position	€ million	**17**	17
Investments in associate companies and joint ventures	Consolidated statement of financial position	€ million	**73**	67
Capital employed on Dec 31		€ million	**3,929**	3,816
Capital employed on Dec 31 of previous year	Defined above	€ million	**3,816**	4,133
Capital employed on March 31		€ million	**4,075**	3,973
Capital employed on June 30		€ million	**3,991**	3,905
Capital employed on Sept 30		€ million	**3,830**	3,815
Capital employed on Dec 31	Defined above	€ million	**3,929**	3,816
Capital employed (4-quarter average)	Average of the opening and 4 quarter-end values	€ million	**3,928**	3,928
Return on capital employed	EBIT / Capital Employed (4-quarter average)	%	**11.3**	2.6

Key figure	Definition of the key figure or source in the consolidated financial statements		2017	2016
Result before taxes	Consolidated statement of income	€ million	**327**	–13
– in relation to sales	Comparison to sales	%	**5.1**	–0.2
Net result for the financial year	Consolidated statement of income	€ million	**392**	144
– in relation to sales	Comparison to sales	%	**6.2**	2.5
Share capital	Consolidated statement of financial position	€ million	**311**	311
Total equity	Consolidated statement of financial position	€ million	**2,721**	2,416
Total equity on Dec 31 of previous year	Consolidated statement of financial position	€ million	**2,416**	2,329
Total equity on March 31		€ million	**2,502**	2,229
Total equity on June 30		€ million	**2,561**	2,148
Total equity on Sept 30		€ million	**2,543**	2,137
Total equity on Dec 31	Consolidated statement of financial position	€ million	**2,721**	2,416
Total equity (4-quarter average)	Average of the opening and 4 quarter-end values	€ million	**2,549**	2,252
Return on equity	Net result for the financial year / Total equity (4-quarter average)	%	**15.4**	6.4

Key figure	Definition of the key figure or source in the consolidated financial statements		2017	2016
Non-current debt	Consolidated statement of financial position	€ million	**698**	987
Current debt	Consolidated statement of financial position	€ million	**505**	458
Cash and cash equivalents	Consolidated statement of financial position	€ million	**112**	204
Net debt	Non-current debt + current debt – cash and cash equivalents	€ million	**1,091**	1,242
– in relation to sales	Comparison to sales	%	**17.1**	21.8
Net financial expenses	Consolidated statement of income	€ million	**127**	121
– in relation to sales	Comparison to sales	%	**2.0**	2.1
Interest expenses	Consolidated statement of income	€ million	**92**	105
– in relation to sales	Comparison to sales	%	**1.5**	1.9
Net debt to Adjusted EBITDA	Net debt / Adjusted EBITDA		**1.7**	4.0
Total assets	Consolidated statement of financial position	€ million	**5,886**	5,990
Advances received	Note 28. Trade and other payables	€ million	**8**	7
Equity-to-assets ratio	Total equity / (Total assets – advances received)	%	**46.3**	40.4
Debt-to-equity ratio	Net debt / Total equity	%	**40.1**	51.4
Net cash generated from operating activities	Consolidated statement of cash flows	€ million	**328**	389

Share-related key figures

		2017	2016	2015	2014	2013
Earnings per share [1) 2)]	€	**0.95**	0.35	0.23	–1.24	–7.52
Diluted earnings per share [1) 2)]	€	**0.90**	0.35	0.23	–1.24	–7.52
Earnings per share, continuing operations [2) 3)]	€	**–**	–	–	–1.27	–6.23
Diluted earnings per share, continuing operations [2) 3)]	€	**–**	–	–	–1.27	–6.23
Cash flow per share [1) 2)]	€	**0.79**	0.94	–0.08	–0.36	0.26
Equity per share [2) 4)]	€	**6.59**	5.84	5.60	5.13	14.23
Dividend per share	€	**0.25** [5)]	0.10	–	–	–
Dividend payout ratio	%	**26.3**	28.8	–	–	–
Dividend yield	%	**3.2**	1.2	–	–	–
Price/earnings ratio		**8.15**	24.31	11.85	neg.	neg.
Development of share price [6)]						
Average trading price	€	**8.11**	4.51	4.49	5.16	4.64
Lowest trading price	€	**6.61**	2.08	2.06	3.37	3.03
Highest trading price	€	**10.05**	8.51	7.76	7.50	7.39
Trading price at the end of the period	€	**7.74**	8.51	2.73	4.77	3.55
Change during the period [7)]	%	**–9.0**	211.3	–42.7	34.2	–48.8
Change in the OMX Helsinki index during the period	%	**6.4**	3.6	10.8	5.7	26.5
Market capitalization at the end of the period	€ million	**3,223**	3,541	1,138	1,987	845
Development in trading volume						
Trading volume [8)]	1,000 shares	**1,021,607**	955,682	1,345,515	695,235	178,989
In relation to weighted average number of shares [1)]	%	**247.7**	230.6	323.9	198.9	135.0
Adjusted average number of shares [9)]		**412,363,204**	414,411,287	415,473,976	349,558,854	132,579,577
Diluted average number of shares [9)]		**450,247,639**	414,411,287	415,473,976	349,558,854	132,579,577
Number of shares at the end of the period [9) 10)]		**412,671,549**	413,860,600	415,489,308	415,426,724	2,077,105,460

1) 2014 and 2013 calculated based on the rights-issue-adjusted weighted average number of shares.

2) 2013 adjusted to reflect the reverse split in June 2014.

3) 2013 calculated based on the rights-issue-adjusted weighted average number of shares.

4) 2013 calculated based on the rights-issue-adjusted number of shares

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

6) 2013 share prices adjusted according to the effect of the rights issue and the reverse split.

7) 2014 calculated based on the adjusted comparable share prices. 2013 calculated based on the unadjusted comparable share prices.

8) Includes only Nasdaq Helsinki trading.

9) Excluding treasury shares.

10) 2013 not adjusted according to the effect of the rights-issue-adjusted and the reverse split.

Definitions of share-related key figures

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

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

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

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

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

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

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

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

Market capitalization at end of the period = Number of shares at the end of the period × Trading price at the end of the period

Trading volume = Number of shares traded during the period, and in relation to the weighted average number of shares during the period

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Consolidated statement of income

€ million	Note	2017	2016
Sales	3	**6,363**	5,690
Cost of sales		**–5,626**	–5,298
Gross margin		**736**	392
Other operating income	6	**51**	88
Selling and marketing expenses		**–74**	–90
Administrative expenses		**–219**	–221
Research and development expenses		**–13**	–20
Other operating expenses	6	**–35**	–46
EBIT		**445**	103
Share of results in associated companies and joint ventures	14	**9**	5
Financial income and expenses	8		
Interest income		**3**	4
Interest expenses		**–92**	–105
Market price gains and losses		**–7**	–6
Other financial income		**0**	6
Other financial expenses		**–30**	–18
Total financial income and expenses		**–127**	–121
Result before taxes		**327**	–13
Income taxes	9	**64**	156
Net result for the financial year		**392**	144
Earnings per share for result attributable to the equity holders of the Company	10		
Earnings per share, EUR		**0.95**	0.35
Diluted earnings per share, EUR		**0.90**	0.35

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

Consolidated statement of comprehensive income

€ million	Note	2017	2016
Net result for the financial year		**392**	144
Other comprehensive income			
Items that may be reclassified subsequently to profit or loss:			
Exchange differences on translating foreign operations			
Change in exchange differences		**–83**	–3
Reclassification adjustments from other comprehensive income to profit or loss		**–3**	–2
Available-for-sale financial assets	17		
Fair value changes during the financial year		**0**	5
Reclassification adjustments from other comprehensive income to profit or loss		**–**	–5
Cash flow hedges	20		
Fair value changes during the financial year		**–1**	–5
Reclassification adjustments from other comprehensive income to profit or loss		**–1**	0
Income tax relating to cash flow hedges	9	**1**	1
Items that will not be reclassified to profit or loss:			
Remeasurements of defined benefit plans	25		
Changes during the financial year		**18**	–63
Income tax relating to remeasurements	9	**37**	20
Share of other comprehensive income in associated companies and joint ventures	14	**–1**	0
Other comprehensive income for the financial year, net of tax		**–32**	–53
Total comprehensive income for the financial year		**359**	91

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

Consolidated statement of financial position

€ million	Note	2017	2016
ASSETS			
Non-current assets			
Intangible assets	11, 13	**535**	504
Property, plant and equipment	12, 13	**2,633**	2,874
Investments in associated companies and joint ventures	14	**73**	67
Available-for-sale financial assets	17	**68**	53
Investments at fair value through profit or loss		**0**	1
Derivative financial instruments	20	**1**	–
Deferred tax assets	9	**295**	204
Defined benefit plan assets	25	**70**	45
Trade and other receivables	22	**1**	2
		3,675	3,750
Current assets			
Inventories	21	**1,380**	1,232
Investments at fair value through profit or loss		**16**	16
Derivative financial instruments	20	**43**	34
Trade and other receivables	22	**659**	687
Cash and cash equivalents	23	**112**	204
		2,211	2,173
Assets held for sale	5	**–**	67
TOTAL ASSETS		**5,886**	5,990

€ million	Note	2017	2016
EQUITY AND LIABILITIES			
Equity attributable to the equity holders of the Company			
Share capital		**311**	311
Premium fund		**714**	714
Invested unrestricted equity reserve		**2,103**	2,103
Other reserves		**3**	4
Retained earnings		**–409**	–716
Total equity	24	**2,721**	2,416
Non-current liabilities			
Non-current debt	27	**698**	987
Derivative financial instruments	20	**3**	4
Deferred tax liabilities	9	**10**	22
Defined benefit and other long-term employee benefit obligations	25	**337**	356
Provisions	26	**79**	118
Trade and other payables	28	**34**	37
		1,160	1,525
Current liabilities			
Current debt	27	**505**	458
Derivative financial instruments	20	**37**	63
Provisions	26	**14**	15
Current tax liabilities		**7**	12
Trade and other payables	28	**1,441**	1,459
		2,004	2,007
Liabilities directly attributable to assets held for sale	5	**–**	43
TOTAL EQUITY AND LIABILITIES		**5,886**	5,990

Consolidated statement of cash flows

€ million	Note	2017	2016
Cash flow from operating activities			
Net result for the financial year		**392**	144
Adjustments for			
Taxes	9	**–64**	–156
Depreciation and amortization	11, 12	**216**	226
Impairments	8, 11, 12, 13	**2**	26
Share of results in associated companies and joint ventures	14	**–9**	–5
Gain/loss on sale of intangible assets and property, plant and equipment	6	**–16**	–2
Gain/loss on sale of financial assets	8	**0**	–5
Gain/loss on disposal of subsidiaries	4	**–22**	–34
Interest income	8	**–1**	–2
Interest expense	8	**85**	94
Exchange rate differences		**55**	–4
Other non-cash adjustments		**13**	–4
		259	134
Change in working capital			
Change in trade and other receivables		**–54**	–17
Change in inventories		**–222**	39
Change in trade and other payables		**97**	285
		–180	307
Provisions, and defined benefit and other long-term employee benefit obligations paid		**–60**	–94
Interest and dividends received		**3**	1
Interest paid		**–78**	–94
Income taxes paid		**–8**	–9
Net cash from operating activities		**328**	389

€ million	Note	2017	2016
Cash flow from investing activities			
Acquired businesses, net of cash		**–**	–9
Purchases of available-for-sale financial assets	17	**–15**	–14
Purchases of property, plant and equipment	12	**–144**	–116
Purchases of intangible assets	11	**–27**	–25
Proceeds from the disposal of subsidiaries, net of cash and tax	4	**90**	72
Proceeds from sale of property, plant and equipment	12	**21**	8
Proceeds from sale of intangible assets	11	**12**	–
Other investing cash flow		**–1**	3
Net cash from investing activities		**–63**	–81
Cash flow before financing activities		**264**	308
Cash flow from financing activities			
Dividends paid	24	**–41**	–
Treasury share purchase	24	**–20**	–7
Borrowings of non-current debt		**190**	369
Repayments of non-current debt		**–541**	–656
Change in current debt		**162**	–13
Repayments of finance lease liabilities		**–65**	–28
Other financing cash flow		**–37**	45
Net cash from financing activities		**–353**	–291
Net change in cash and cash equivalents		**–89**	17
Cash and cash equivalents at the beginning of the financial year		**204**	186
Net change in cash and cash equivalents		**–89**	17
Foreign exchange rate effect on cash and cash equivalents		**–3**	1
Cash and cash equivalents at the end of the financial year	23	**112**	204

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 Jan 1, 2016		**311**	**714**	**2,103**	**5**	**6**	**8**	**–92**	**–21**	**–704**	**2,329**
Net result for the financial year		–	–	–	–	–	–	–	–	144	144
Other comprehensive income		–	–	–	–	–4	–5	–43	–	0	–53
Total comprehensive income for the financial year		–	–	–	–	–4	–5	–43	–	144	91
Transactions with equity holders of the Company											
Contributions and distributions											
Share-based payments	18	–	–	–	–	–	–	–	9	–7	3
Treasury share purchase	24	–	–	–	–	–	–	–	–7	–	–7
Other		–	–	–	–2	–	–	–	–	2	–
Equity on Dec 31, 2016		**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**

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 January 31, 2018 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 for the financial year 2017 covering the period from January 1 to December 31, 2017.

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, 2017. 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.

The consolidated financial statements of Outokumpu for 2017 have been prepared on a going concern basis.

As from January 1, 2017 Outokumpu has applied the following amended standards.

- **Amendments to IAS 12 Income Taxes – Recognition of Deferred Tax Assets for Unrealised Losses** (effective for financial years beginning on or after January 1, 2017). The amendments clarify that the existence of a deductible temporary difference depends solely on a comparison of the carrying amount of an asset and its tax base at the end of the reporting period, and is not affected by possible future changes in the carrying amount or expected manner of recovery of the asset. The amendments had no impact on Outokumpu's consolidated financial statements.
- **Amendments to IAS 7 Statement of Cash Flows Disclosure Initiative** (effective for financial years beginning on or after January 1, 2017). The changes were made to enable users of financial statements to evaluate changes in liabilities arising from financing activities, including both changes arising from cash flow and non-cash changes. The amendments had an impact on the disclosures in Outokumpu's consolidated financial statements. See note 27.

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 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, 2017).

- **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. The standard also introduces new disclosure requirements.

  Outokumpu will adopt IFRS 15 as of January 1, 2018, using the retrospective approach. Outokumpu has assessed its current accounting policies and has concluded that the adoption will have no material impact on the quantitative information or on the presentation of the consolidated financial statements. Outokumpu's performance obligations are sales of stainless steel and ferrochrome, as well as arranging transportation of these goods to the customer when "C" Incoterms are applied in the customer delivery. Outokumpu ships goods to customers under variety of Incoterms, and considers the transfers of physical possession and risks and rewards related to the ownership of the goods accordingly. Consequently, Outokumpu considers that performance obligations related to sales of stainless steel and Ferrochrome are satisfied at a point of time. Performance obligations related to arranging transportation are satisfied over time of

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 33

the transportation. The transaction price is allocated to the performance obligations on relative stand-alone selling price basis. Stainless steel and ferrochrome sales prices are fixed before delivery, and volume discounts accrued in the revenue accounting are the only variable component in pricing. The volume discounts are already according to current principles accrued in revenue accounting.

- **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 also carries forward the guidance on recognition and derecognition of financial instruments from IAS 39.

  The main impact of the new standard to Outokumpu is the requirement to value all equity instruments at fair value. According to IAS 39, Outokumpu has valued its investment in Voimaosakeyhtiö SF at cost as fair valuation has not been reliable due to early stage of the Fennovoima project. Once the Fennovoima project progresses and reliability of fair value measurement improves, the value can differ from the current fair value estimate based on cost. Depending on assumptions used, management estimates result in a wide range for fair value.

  Outokumpu will apply simplified approach to analyze and recognize expected credit losses on trade receivables. The change will not have material impact on Group's consolidated financial statements. Regarding hedge accounting, the changes will not have material impact on Group's current hedge accounting program. However, Group will analyze the opportunities for a wider application of hedge accounting in the future.

- **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 the lease agreements as right-of-use assets and lease liabilities in the statement of financial position. The accounting model is similar to current finance lease accounting according to IAS 17. The exceptions available relate to short-term contracts in which the lease term is 12 months or less and to low value items. The standard will increase Outokumpu's non-current assets and non-current and current debt, affecting primarily the accounting for the Group's leases that have currently been classified operating leases. The change will improve adjusted EBITDA which is Outokumpu's main performance measure.

- **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 will have an impact on Outokumpu's consolidated financial statements. As Outokumpu's share-based payment plans will according to the amendment be fully accounted for as equity-settled, the fair values of the programs over the vesting period will be fully determined based on the share price at the grant date. Based on share-based payment valuation on December 31, 2017, the impact is not material.

- **Annual Improvements to IFRSs (2014–2016 Cycle)*:** The changes will not have material impact on Outokumpu's consolidated financial statements.

- **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.

- **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 near future is known. That is why a significant part of the future price for each product to be sold is estimated

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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.

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 derivatives and other 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.

The Group has used discounted cash flow analysis for various derivative contracts and in case of options Black-Scholes-Merton model has been applied. See note 20.

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, with the exception of costs to issue debt or equity securities, are recognized as expenses in the periods in which costs are incurred and services rendered.

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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. The result for the period and items recognized in other comprehensive income are allocated to the equity holders of the company and non-controlling interests and presented in the statement of income and statement of other comprehensive income. Non-controlling interests are presented separately from the equity allocated to the equity holders of the company. Comprehensive income is allocated to the equity holders of the company and to non-controlling interests even in situations where the allocation would result in the non-controlling interests' share being negative, unless non-controlling interests have an exemption not to meet obligations which exceed non-controlling interests' investment in the company.

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 has three reportable operating segments which represent the strategic business areas of the Group.

The operating segments are responsible for sales, profitability, production and supply chain management. They are managed separately and are reported separately in internal management reporting to the CEO who is Outokumpu's chief operating decision maker. Outokumpu's segment information is based on the internal management reporting which is prepared according to the IFRS accounting principles.

Pricing of intersegment transactions is based on arm's length prices. Adjusted EBITDA of the operating segments is reported to the CEO regularly in order for him to review their performance and make decisions about resources to be allocated to the segments. Adjusted EBITDA used in management reporting is defined in these accounting principles.

Other operations mainly consist of such business development and Corporate Management expenses that are not allocated to the businesses.

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 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 recognition

Revenue from the sale of goods is recognized after the significant risks and rewards of ownership have been transferred to the buyer, and the Group retains neither a continuing managerial involvement to the degree usually associated with ownership, nor effective control of those goods. Usually this means that revenue is recognized upon delivery of goods to customers in accordance with agreed terms of delivery.

Outokumpu ships stainless steel products to customers under a variety of delivery terms. The used terms are based on Incoterms collection of delivery terms, published and defined by the International Chamber of Commerce Terms of Trade.

The most common delivery terms used by Outokumpu are "C" terms, whereby the Group arranges and pays for the carriage and certain other costs. The Group ceases to be responsible for the goods and revenue is recognized once the goods have been handed over to the carrier to be delivered to the agreed destination.

Less frequently used are "D" terms, under which the Group is obliged to deliver the goods to the buyer at the agreed destination, in which case revenue is recognized when the goods are delivered to the buyer. Also "F" terms are less frequently used, under which the buyer arranges and pays for the carriage, and revenue is recognized when the goods are handed over to the carrier contracted by the buyer.

Sales-related volume discounts are accrued in the revenue accounting.

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 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 impairment. In respect of associated companies, goodwill is included in the carrying amount of the investment. 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 amortizations and accumulated 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 a qualifying intangible asset are capitalized in the statement of financial position as part of the carrying amount of the asset. Qualifying asset is an asset that necessarily takes a substantial period of time to get 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 a qualifying asset are capitalized in the statement of financial position as part of the carrying amount of the asset. Qualifying asset is an asset that necessarily takes a substantial period of time to get ready for its intended use or sale. Other borrowing costs are recognized as expenses in the period in which they are incurred. 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 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, thus included in EBIT.

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.

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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

Financial assets

The Group's financial assets are classified as financial assets at fair value through profit or loss, loans and receivables and available-for-sale financial assets. Outokumpu did not hold financial instruments classified as held-to-maturity investments in the current or previous reporting period. Classification is made upon initial recognition based on the purpose of use of the financial asset.

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.

At the end of the reporting period, the Group estimates whether there is objective evidence on impairment of items other than financial assets measured at fair value through profit or loss. A financial asset is assumed to be impaired if there is objective evidence on impairment and the effect on the estimated future cash flows generated by the financial assets can be reliably measured. Objective evidence on impairment may be e.g. a significant deterioration in the counterparty's results, a contract breach by the debtor and, in case of equity instruments (available-for-sale financial assets), a significant or long-term decrease in the value of an instrument below its carrying amount. In such situations, the fair value development of equity instruments is reviewed for the past three quarters of the reporting period. The Group has determined percentual limits for the review, the breach of which will result in the recognition of an impairment loss. An impairment loss is recognized immediately in profit or loss.

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 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. Changes in fair value of derivative contracts not qualifying for hedge accounting are recognized in EBIT in other operating income and expenses.

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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 changes in fair value of other financial items at fair value through profit or loss held are recognized in market price gains and losses under financial income and expenses.

Loans and receivables

Loans and receivables are non-derivative financial assets with fixed or determinable payments and are not quoted in active markets. Loans and receivables arise when the Group gives out a loan or delivers goods or services directly to a debtor.

Loans and receivables are recognized at the settlement date and measured initially at fair value. After initial recognition, loans and receivables are measured at amortized cost by using the effective interest rate method.

Outokumpu uses factoring for working capital management. Sold trade receivables have been derecognized when the related risks and rewards of ownership have been transferred in material respect.

Available-for-sale financial assets

Available-for-sale financial assets are non-derivative financial assets which are either designated in this category or not classified in any other category of financial assets. The purchases and sales of these items are recognized at the trade date. Available-for-sale financial assets are included in non-current assets, unless the Group has the intention to dispose of the investment within 12 months from the reporting date.

This category includes share investments, both in listed and unlisted companies. Investments in shares are measured at fair value, or if fair value cannot be reliably measured, at cost less any impairment losses. 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 maximize the use of observable market data where it is available and rely as little as possible on entity-specific estimates made by Outokumpu. Fair value changes of share instruments measured at fair value are recognized in other comprehensive income and presented in equity within fair value reserve, net of tax, until the shares in question are disposed of or impaired, in which case, the accumulated changes in fair value are transferred from equity to be recognized in profit or loss as reclassification adjustments.

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

The Group's financial liabilities are classified as either financial liabilities at fair value through profit or loss or other financial liabilities (financial liabilities recognized at amortized cost). 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.

Financial liabilities at fair value through profit or loss

In Outokumpu Group, 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.

Other financial liabilities

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. Significant transaction costs are included in the original carrying amount.

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 expiry.

Derivative instruments and hedge accounting

Derivatives

All the Group's 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 value of currency, interest rate and metal options is determined by

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utilising commonly applied option valuation models, such as Black–Scholes–Merton model. Fair values of certain derivatives are based on valuations of external counterparties.

Hedge accounting

Hedge accounting refers to the method of accounting, which aims to assign one or several hedging instruments so that their fair value or cash flows offset completely or partly the changes in fair value or cash flows of the hedged item. Outokumpu applies hedge accounting to certain foreign exchange and commodity derivatives. Derivatives, to which hedge accounting is not applied, have been acquired to reduce the profit or loss and/or cash flow effects of operations or financing activities.

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. Hedging instruments are subject to prospective and retrospective effectiveness testing. 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. The hedging relationship is considered to be highly effective if the changes in fair values or cash flows 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.

Cash flow hedges

In cash flow hedging, the Group is hedging against changes in cash flows, which result from the realization of a risk associated with a recognized asset or liability or a highly probable forecast transaction. Fair value changes of derivatives designated to hedge forecast 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.

Fair value hedges

Changes in the fair value of derivatives that are designated and qualify as fair value hedges are recorded in the statement of income, together with any changes in the fair value of the hedged asset or liability that are attributable to the hedged risk.

Net investment hedges

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 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 the weighted average method. 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.

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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 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 incentive programs are accounted for partly as equity-settled and partly as cash-settled. The equity-settled and cash-settled parts both include market and non-market based vesting conditions. The fair values of programs over vesting periods are determined at the grant date and the portion paid in cash is remeasured based on market conditions at the end of each reporting period. Market prices and applicable statistical models are used in determining the fair values. 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 fair value measurement of the benefits.

EBIT and EBITDA

In Outokumpu, 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

Outokumpu considers adjusted EBITDA as its 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. Segment information

Outokumpu's business is divided into three business areas which are Europe, Americas and Long Products. 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 three operating segments:

Europe consists of both coil and plate operations as well as ferrochrome production 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 coil 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.

Operating segments

2017 € million	Europe	Americas	Long Products	Operating segments total	Reconciliation: Other operations	Reconciliation: Eliminations	Group
External sales	4,206	1,512	405	6,123	239	–	6,363
Inter-segment sales	250	33	186	469	268	–737	–
Sales	4,455	1,546	591	6,592	507	–737	6,363
Adjusted EBITDA	615	21	16	653	–15	–7	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	615	21	16	653	16	–7	663
Depreciation and amortization	–151	–52	–7	–210	–6	–	–216
Impairments	–1	–	–	–1	–	–	–1
EBIT	463	–31	10	442	10	–7	445
Share of results in associated companies and joint ventures	–	–	–	–	–	–	9
Financial income	–	–	–	–	–	–	3
Financial expenses	–	–	–	–	–	–	–129
Result before taxes	–	–	–	–	–	–	327
Income taxes	–	–	–	–	–	–	64
Net result for the financial year	–	–	–	–	–	–	392
Assets in operating capital	3,571	1,382	241	5,194	253	–196	5,251
Other assets	–	–	–	–	–	–	340
Deferred tax assets	–	–	–	–	–	–	295
Total assets	–	–	–	–	–	–	5,886
Liabilities in operating capital	1,085	310	128	1,524	264	–182	1,606
Other liabilities	–	–	–	–	–	–	1,549
Deferred tax liabilities	–	–	–	–	–	–	10
Total liabilities	–	–	–	–	–	–	3,164
Operating capital	2,485	1,072	113	3,670	–11	–15	3,645
Net deferred tax asset	–	–	–	–	–	–	285
Capital employed	–	–	–	–	–	–	3,929

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Other operations consist of activities outside the three operating segments described above, 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.

2016 € million	Europe	Americas	Long Products	Operating segments total	Reconciliation Other operations	Reconciliation Eliminations	Group
External sales	3,775	1,304	333	5,412	277	–	5,690
Inter-segment sales	151	21	153	326	289	–615	–
Sales	3,927	1,325	487	5,738	567	–615	5,690
Adjusted EBITDA	374	–27	–1	346	–37	0	309
Adjustments to EBITDA							
Redundancy costs	–23	–3	–2	–27	–3	–	–30
Gain on the SKS divestment	–	–	–	–	28	–	28
Changes to the UK pension scheme	4	–	21	25	1	–	26
Net insurance compensation and costs related to technical issues in Calvert	–	24	–	24	–	–	24
Restructuring provisions, other than redundancy	–8	–	–	–8	–	–	–8
Gain on the Guangzhou divestment	–	–	–	–	6	–	6
EBITDA	348	–6	18	360	–5	0	355
Depreciation and amortization	–158	–54	–7	–219	–7	–	–226
Impairments	–26	–	–	–26	–	–	–26
EBIT	164	–60	11	115	–12	0	103
Share of results in associated companies and joint ventures	–	–	–	–	–	–	5
Financial income	–	–	–	–	–	–	10
Financial expenses	–	–	–	–	–	–	–130
Result before taxes	–	–	–	–	–	–	–13
Income taxes	–	–	–	–	–	–	156
Net result for the financial year	–	–	–	–	–	–	144
Assets in operating capital	3,569	1,458	239	5,265	279	–218	5,326
Other assets	–	–	–	–	–	–	393
Deferred tax assets	–	–	–	–	–	–	204
Assets held for sale	–	–	–	–	–	–	67
Total assets	–	–	–	–	–	–	5,990
Liabilities in operating capital	1,150	331	99	1,580	322	–210	1,692
Other liabilities	–	–	–	–	–	–	1,818
Deferred tax liabilities	–	–	–	–	–	–	22
Liabilities directly attributable to assets held for sale	–	–	–	–	–	–	43
Total liabilities	–	–	–	–	–	–	3,574
Operating capital	2,419	1,127	139	3,686	–43	–8	3,635
Net deferred tax asset	–	–	–	–	–	–	181
Capital employed	–	–	–	–	–	–	3,816

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Geographical information

€ million	Finland	Germany	Sweden	The UK	Other Europe	North America	Asia and Oceania	Other countries	Inter-area	Group
2017										
Sales by destination	224	1,511	174	479	1,984	1,458	434	99	–	6,363
Sales by origin	3,133	1,425	1,363	617	424	1,659	64	55	–2,377	6,363
Non-current assets	1,539	337	260	56	112	847	15	2	–	3,168
2016										
Sales by destination	204	1,371	162	482	1,610	1,388	382	89	–	5,690
Sales by origin	2,743	1,268	1,166	493	404	1,410	56	51	–1,901	5,690
Non-current assets	1,555	345	276	59	115	1,009	17	3	–	3,379

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.

4. Acquisitions and divestments

Acquisitions in 2017

Outokumpu did not have any acquisitions in 2017.

Divestments in 2017

In January 2017, Outokumpu divested its quarto plate mill Outokumpu Stainless Plate, LLC within the Americas segment. The consideration of the transaction was EUR 27 million and the gain, recognized in other operating income, was EUR 15 million, of which EUR 7 million were cumulative translation differences reclassified to profit or loss. In the consolidated financial statements for 2016, the subsidiary was presented as a disposal group held for sale with assets held for sale amounting to EUR 67 million and liabilities directly attributable to assets held for sale amounting to EUR 43 million. Cash and cash equivalents of the divested subsidiary were EUR 0 million.

In July 2017, Outokumpu divested its pipe plant Outokumpu Stainless Pipe, Inc. within the Long Products segment. The consideration of the transaction was EUR 26 million and the gain, recognized in other operating income, was EUR 7 million, which included EUR –4 million of cumulative translation differences that were reclassified to profit or loss. The divestment did not have any material impact on the consolidated statement of financial position. Cash and cash equivalents of the divested subsidiary were EUR 0 million.

5. Assets held for sale

Year 2017

In 2017, Outokumpu did not have any disposal groups or assets held for sale.

Year 2016

In 2016, Outokumpu committed to divesting the subsidiary Outokumpu Stainless Plate, LLC within the Americas segment. Accordingly, the subsidiary was presented as a disposal group held for sale in Outokumpu's 2016 consolidated financial statements. The main items presented under assets held for sale comprised property, plant and equipment of EUR 35 million, inventories of EUR 14 million and deferred tax assets of EUR 8 million. The main item presented under liabilities associated with assets held for sale comprised defined benefit obligation of EUR 38 million. The divestment of the subsidiary took place in January 2017.

6. Income and expenses

Depreciation and amortization by function

€ million	2017	2016
Cost of sales	**–207**	–214
Selling and marketing expenses	**–0**	–1
Administrative expenses	**–8**	–11
Research and development expenses	**–1**	–0
	–216	–226

Other operating income

€ million	2017	2016
Gains from disposal of subsidiaries	**22**	34
Gains on sale of intangible assets and property, plant and equipment	**16**	4
Insurance compensation	**0**	37
Other income items	**12**	13
	51	88

Other operating expenses

€ million	2017	2016
Exchange gains and losses from foreign exchange derivatives	**–9**	–13
Market price gains and losses from commodity derivatives	**–14**	–10
Market price gains and losses from derivative financial instruments	**–23**	–22
Impairments	**–1**	–26
Losses on sale of intangible assets and property, plant and equipment	**–0**	–2
Other expense items	**–10**	4
	–35	–46

Adjustments to EBITDA and EBIT

€ million	2017	2016
Gain on the quarto plate mill divestment	**15**	–
Gain on the sale of land in Sheffield	**9**	–
Gain on the pipe plant divestment	**7**	–
Redundancy costs	**–**	–30
Gain on the SKS divestment	**–**	28
Changes to the UK pension scheme	**–**	26
Net insurance compensation and costs related to technical issues in Calvert	**–**	24
Restructuring costs, other than redundancy	**–**	–8
Gain on the Guangzhou divestment	**–**	6
	31	47

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. See note 4.

In 2016, Outokumpu announced global streamlining measures related to sales, general and administrative functions and proceeded with other restructuring measures in accordance with the EMEA restructuring plan. Related to these measures redundancy costs of EUR 30 million were recognized.

In 2016, EUR 28 million additional gain was recognized relating to the divestment of Shanghai Krupp Stainless Co., Ltd. (SKS) which took place in 2015. Outokumpu also divested its Guangzhou service center in 2016 from which EUR 6 million gain was recognized.

In 2016, Outokumpu closed its defined benefit pension scheme in the UK. As a result, the net pension obligation decreased due to a curtailment of EUR 26 million. See note 25.

In 2016, EUR 24 million adjustment was recognized relating to earlier insurance compensation in Calvert mill in the US due to machinery breakdown incident in 2014.

Auditor fees

2017

€ million	PricewaterhouseCoopers
Audit	**–1.9**
Audit-related services	**–0.1**
Tax advisory	**–0.2**
Other services	**–0.3**
	–2.5

PricewaterhouseCoopers Oy has provided non-audit services to Outokumpu in total of EUR 0.4 million during 2017. These services comprised of auditor's written statements and certificates, tax services and consultation in business transformation projects.

2016

€ million	KPMG
Audit	–1.9
Tax advisory and other services	–0.1
	–1.9

7. Employee benefit expenses

€ million	2017	2016
Wages and salaries	**–549**	–562
Termination benefits	**–1**	–28
Social security costs	**–73**	–68
Post-employment and other long-term employee benefits		
Defined benefit plans [1]	**–7**	17
Defined contribution plans	**–43**	–49
Other long-term employee benefits [2]	**13**	–2
Expenses from share-based payments	**–16**	–9
Other personnel expenses	**–7**	–14
	–684	–713

[1] 2016 includes curtailment of EUR 26 million due to the closure of the defined benefit pension scheme in the UK. See note 25.

[2] 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 were not recognized in 2017 nor 2016.

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	2017	2016
Interest income	3	4
Gains on the sale of available-for-sale financial assets	–	5
Other financial income items	0	0
Other financial income	0	6
Interest expenses		
Debt at amortized cost	–65	–71
Factoring expenses	–8	–8
Finance lease arrangements	–12	–15
Derivatives	–2	–4
Interest expense on defined benefit obligations and other long-term employee benefits	–5	–8
Interest expenses	–92	–105
Capitalized interests	1	3
Impairment of financial assets	–1	–0
Fees related to committed credit facilities	–14	–18
Other fees	–15	–4
Other financial expenses	–30	–18
Exchange gains and losses		
Derivatives	83	–13
Cash, loans and receivables	–97	6
Other market price gains and losses		
Derivatives	2	1
Other	5	–1
Market price gains and losses	–7	–6
Total financial income and expenses	–127	–121

Other fees mainly consist of expenses related to the redemption of the notes due 2019 and two partial redemptions related to the notes due 2021.

Exchange gains and losses in the consolidated statement of income

€ million	2017	2016
In sales	–17	10
In purchases [1]	37	–15
In other income and expenses [1]	–9	–13
In financial income and expenses [1]	–15	–7
	–3	–24

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

Exchange gains and losses include EUR 74 million of net exchange gains on derivative financial instruments (2016: EUR 24 million net exchange losses) of which a loss of EUR 9 million has been recognized in other operating expenses and a gain of EUR 83 million in financial items.

9. Income taxes

Income taxes in the consolidated statement of income

€ million	2017	2016
Current taxes	–6	–12
Deferred taxes	71	168
	64	156

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

€ million	2017	2016
Result before taxes	327	–13
Hypothetical income taxes at Finnish tax rate of 20% on consolidated result before tax	–65	3
Difference between Finnish and foreign tax rates	–6	10
Tax effect of non-deductible expenses and tax exempt income [1]	–2	–3
Reassessment of the values of deferred tax assets [2]	139	152
Taxes for prior years	–1	2
Other items [1]	0	–8
Income taxes in the consolidated statement of income	64	156

[1] The tax effect of non-deductible and tax exempt items in 2016 included fully or partly tax exempted gain from disposal of subsidiary shares. Local withholding tax with respect to these particular share disposals is presented as other items.

[2] Includes EUR 125 million tax benefit due to recognition of previously non-recognized deferred tax assets (2016: EUR 189 million).

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Deferred tax assets and liabilities

€ million	Jan 1, 2017		Movements				Dec 31, 2017	
	Deferred tax assets	Deferred tax liabilities	Recognized in profit or loss	Recognized in other comprehensive income	Translation differences	Reclassification to assets held for sale	Deferred tax assets	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**

€ million	Jan 1, 2016		Movements				Dec 31, 2016	
	Deferred tax assets	Deferred tax liabilities	Recognized in profit or loss	Recognized in other comprehensive income	Translation differences	Reclassification to assets held for sale	Deferred tax assets	Deferred tax liabilities
Intangible assets	8	–2	–2	–	–	–	7	–3
Property, plant and equipment	31	–173	–44	–	–6	8	25	–209
Inventories	19	–8	–3	–	–	–0	15	–8
Net derivate financial assets	8	–9	–0	1	–	–	9	–10
Other financial assets	2	–3	–1	–	–	–	4	–5
Defined benefit and other long-term employee benefit obligations	44	–22	–34	20	2	–16	18	–23
Other financial liabilities	59	–3	20	–	2	–	80	–2
Provisions	21	–18	0	–	–	–	22	–19
Tax losses and tax credits	48	–	232	–	2	–	282	–
	240	–240	168	21	–1	–8	461	–280
Offset	–224	224					–257	257
Deferred taxes in the statement of financial position	16	–16					204	–22

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.

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 33

Aggregate deferred taxes recognized in equity through other comprehensive income

€ million	2017	2016
Fair value reserves	0	–1
Net investment hedging	–4	–4
Remeasurements of the net defined benefit liability	53	23
	49	18

Tax losses carried forward

€ million	2017	2016
Expire in 5 years	230	176
Expire later than in 5 years	1,993	2,333
Never expire	1,173	1,281
	3,396	3,790

As of December 31, 2017 tax loss carry forwards amount to EUR 3,396 million (2016: EUR 3,790 million), of which EUR 630 million (2016: EUR 896 million) in Finland, EUR 347 million (2016: EUR 391 million) in Sweden, EUR 1,625 million (2016: EUR 1,646 million) in the US and EUR 498 million (2016: EUR 521 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, 2017 tax loss carry forwards of the Outokumpu Group for which no deferred tax asset has been recognized amount to EUR 1,922 million (2016: EUR 2,546 million) of which most sigficant are in the US. Majority of the US tax losses expire later than in 5 years. In 2017, due to increased probability of future tax benefits, mainly in Germany, previously non-recognized deferred tax assets of EUR 160 million in total were recognized. In 2016, corresponding recognition of previously non-recognized deferred tax assets in Finland and Sweden amounted to EUR 189 million. The recognition decision in both 2017 and 2016 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

	2017	2016
Result attributable to the equity holders of the Company, € million	392	144
Weighted average number of shares, in thousands	412,363	414,411
Diluted average number of shares, in thousands [1]	450,248	414,411
Earnings per share for result attributable to the equity holders of the Company		
Earnings per share, EUR	0.95	0.35
Diluted earnings per share, EUR	0.90	0.35

[1] In 2016, 33,662 thousand potentially convertible shares and 3,859 thousand shares to be delivered based on Group's share-based incentive programs were excluded from the diluted average number of shares in 2016 because their overall effect would have been anti-dilutive.

11. Intangible assets

€ million	Goodwill	Other intangible assets [1]	Total
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 impairment on Dec 31, 2017	**–24**	**–207**	**–232**
Carrying value on Dec 31, 2017	**467**	**68**	**535**
Carrying value on Jan 1, 2017	467	37	504
Historical cost on Jan 1, 2016	475	229	704
Translation differences	–1	–2	–3
Additions	–	13	13
Acquired subsidiaries	19	0	19
Reclassifications [2]	–	1	1
Historical cost on Dec 31, 2016	493	241	734
Accumulated amortization and impairment on Jan 1, 2016	–8	–198	–206
Translation differences	1	2	3
Amortization	–	–8	–8
Impairments	–19	–	–19
Accumulated amortization and impairment on Dec 31, 2016	–26	–204	–229
Carrying value on Dec 31, 2016	467	37	504
Carrying value on Jan 1, 2016	467	30	498

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

[2] In 2016, construction work in progress related to intangible assets was presented in the corresponding item of property, plant and equipment. In 2017, these assets were reclassified to the intangible assets. These assets relate mainly to on-going IT system development in the Group.

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 33

During 2017, borrowing costs amounting to EUR 1 million were capitalized on investment projects (2016: EUR 0 million). Total interest capitalized on December 31, 2017 was EUR 1 million (Dec 31, 2016: EUR 0 million). Outokumpu determines separate capitalization rates for each quarter. The average rate used during 2017 was 3.3%.

Intangible assets mainly comprise acquired assets.

Emission allowances

Outokumpu had seven active sites operating under EU's Emissions Trading Scheme (ETS) in 2017. These include the production plants in Tornio, Finland; Avesta, Degerfors 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 0.95 million tonnes in 2017 (2016: 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 2018 is estimated to be some 1 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 [1]	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

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 33

€ million	Land	Mine properties	Buildings	Machinery and equipment	Other tangible assets	Advances paid and construction work in progress [1]	Total
Historical cost on Jan 1, 2016	136	66	1,269	4,635	131	170	6,407
Translation differences	–0	–	–6	–40	–1	0	–46
Additions	4	0	18	64	1	64	151
Acquired subsidiaries	–	–	–	3	–	–	3
Disposals	–0	–	–24	–31	–0	–15	–71
Disposed subsidiaries	–	–	–1	–2	–	–	–3
Reclassifications	–	0	14	74	–1	–93	–6
Reclassification to assets held for sale	–0	–	–18	–62	–3	–0	–84
Historical cost on Dec 31, 2016	139	66	1,251	4,641	129	125	6,351
Accumulated depreciation and impairment on Jan 1, 2016	–14	–15	–575	–2,705	–71	–21	–3,402
Translation differences	0	–	8	45	0	0	54
Disposals	–	–	2	24	–0	16	42
Disposed subsidiaries	–	–	–0	1	–	–	1
Reclassifications	–	–	–0	–2	6	1	5
Depreciation	–0	–6	–45	–157	–9	–0	–217
Impairments	–	–	–1	–7	–	–	–8
Reclassification to assets held for sale	–	–	8	40	1	–	49
Accumulated depreciation and impairment on Dec 31, 2016	–14	–21	–603	–2,763	–73	–4	–3,477
Carrying value on Dec 31, 2016	126	45	648	1,878	56	122	2,874
Carrying value on Jan 1, 2016	122	51	693	1,930	60	149	3,005

[1] In 2016, advances paid and construction work in progress included also intangible assets. In 2017, these assets have been reclassified into intangible assets.

During 2017, no borrowing costs were capitalized on investment projects (2016: EUR 3 million). Total interest capitalized on December 31, 2017 was EUR 26 million (Dec 31, 2016: EUR 29 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 33

Assets leased by finance lease agreements

€ million	Land	Buildings	Machinery and equipment	Total
Historical cost	28	1	106	136
Accumulated depreciation	–1	–0	–50	–51
Carrying value on Dec 31, 2017	**27**	**1**	**56**	**85**
Historical cost	28	1	234	263
Accumulated depreciation	–1	–0	–98	–99
Carrying value on Dec 31, 2016	28	1	136	164

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	**2017**	2016	**2017**	2016	**2017**	2016
Europe	**458**	458	**5**	4	**1,727**	1,786
Americas	**–**	–	**1**	0	**824**	975
Long Products	**9**	9	**4**	6	**63**	74
Other operations	**–**	–	**58**	28	**18**	39
	467	467	**68**	37	**2,633**	2,874

Impairment testing

Impairment testing is carried out on operating segment level. Operating segments are the Group's cash-generating units. Europe represents 98% of the total goodwill and 66% of the total property, plant and equipment of the Group, and Americas represents 31% of the total property, plant and equipment of the Group. During the year 2017, 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 based on the plans approved by the management for 2018–2020 after which cash flows are 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 industry capital structure. The pre-tax WACC used for Europe is 8.0% (2016: 9.4%), and for Americas 9.5% (2016: 9.2%).

In the terminal value, growth rate assumptions of 0.5% (2016: 0.5%) for Europe and 1.0% (2016: 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 6,043 million. Increase of 13.4 percentage point in after-tax WACC would cause the recoverable amount to equal the carrying amount. Also, 32% decrease in annual delivery volumes or 23% decrease in base prices 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 231 million. Increase of 1.6 percentage point in after-tax WACC would cause the recoverable amount to equal the carrying amount. Also, 8% decrease in annual delivery volumes or 2% decrease in base prices 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 2017 or 2016. However, an impairment loss of EUR 1 million on property, plant and equipment was recognized in Europe in 2017 due to obsolence (2016: a goodwill impairment loss of EUR 19 million related to the acquisition of Hernandez Edelstahl GmbH and impairment losses of EUR 8 million on property, plant and equipment in Europe due to restructuring and asset obsolence).

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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	2017	2016
Carrying value of investments in associated companies	**53**	51
Group's share of total comprehensive income	**4**	3

Joint ventures

	Domicile	Ownership, %
Fagersta Stainless AB	Sweden	50

Summarized financial information on joint ventures

€ million	2017	2016
Carrying value of investments in joint ventures	**20**	16
Group's share of total comprehensive income	**5**	2

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

2017 € million	Category in accordance with IAS 39	Measured at: Amortized cost	Measured at: Cost	Measured at: Fair value recognized in other comprehensive income	Measured at: Fair value recognized through profit or loss	Carrying amount on Dec 31, 2017	Fair value on Dec 31, 2017
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	d)	–	–	–	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

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2016 € million	Category in accordance with IAS 39	Measured at Amortized cost	Cost	Fair value recognized in other comprehensive income	Fair value recognized through profit or loss	Carrying amount on Dec 31, 2016	Fair value on Dec 31, 2016
Non-current financial assets							
Available-for-sale financial assets	a)	–	49	4	–	53	53
Investments at fair value through profit or loss	c)	–	–	–	1	1	1
Trade and other receivables	b)	2	–	–	–	2	2
Current financial assets							
Investments at fair value through profit or loss	c)	–	–	–	16	16	16
Trade and other receivables	b)	611	–	–	–	611	611
Cash and cash equivalents	b), c)	204	–	–	–	204	204
Hedge accounted derivatives	e)	–	–	0	–	0	0
Derivatives held for trading	d)	–	–	–	34	34	34
		817	49	4	51	920	920
Non-current financial liabilities							
Non-current debt	f)	987	–	–	–	987	1,127
Derivatives held for trading	d)	–	–	–	4	4	4
Current financial liabilities							
Current debt	f)	458	–	–	–	458	458
Trade and other payables	f)	1,324	–	–	–	1,324	1,324
Derivatives held for trading	d)	–	–	–	63	63	63
		2,769	–	–	67	2,836	2,976

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

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16. Fair value hierarchy of financial assets and liabilities

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**

2016		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	–	1	17
Hedge accounted derivatives	0	–	0	–	0
Derivatives held for trading	34	–	34	–	34
	55	16	34	5	55
Financial assets not measured at fair value					
Non-current trade and other receivables	2	–	2	–	2
Financial liabilities measured at fair value					
Hedge accounted derivatives	0	–	0	–	0
Derivatives held for trading	67	–	67	–	67
	67	–	67	–	67
Financial liabilities not measured at fair value					
Non-current debt	987	–	1,127	–	1,127

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.

Available-for-sale financial assets 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 future prices of electricity, discount rate, inflation rate, the estimated amount of electricity to be received and estimated production costs.

17. Available-for-sale financial assets

€ million	2017	2016
Carrying value on Jan 1	**53**	40
Additions	**15**	14
Fair value changes	**0**	5
Gains and losses from disposals reclassified to profit or loss	**–**	–5
Carrying value on Dec 31	**68**	53

Fair value reserve in equity

€ million	2017	2016
Fair value	**68**	53
Cost	**64**	49
Fair value reserve before tax	**4**	4
Deferred tax liability	**–1**	–1
Fair value reserve	**3**	3

Materially all equity securities are unlisted. Investments include EUR 63 million holdings in Voimaosakeyhtiö SF providing ownership to Fennovoima Oy and holdings in other energy companies in which Outokumpu does not have control, joint control or significant influence. During 2017 Outokumpu invested further EUR 15 million in Voimaosakeyhtiö SF. As the Fennovoima project is at an early stage, the fair value cannot be reliably measured, and therefore investment has been valued at cost.

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18. Share-based payment plans

During the year 2017, Outokumpu's share based payment programs included Performance Share Plan 2012 (Plans 2015–2017, 2016–2018, and 2017–2019), Restricted Share Pool Program 2012 (Plans 2015–2017, 2016–2018 and 2017–2019) 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 2014–2016 ended and based on the achievement of the targets the participants received 75,6% of the target number of shares of the plan as reward. After deductions for applicable taxes, altogether 293,761 shares were delivered to 84 persons. Regarding the Restricted Share Pool Program, plan 2014–2016, after deductions for applicable taxes, in total 10,557 shares were delivered to 5 participants based on the conditions of the plan. Outokumpu used its treasury shares for the reward payments.

In December 2016, the Board of Directors approved the commencement of the new plan (plan 2017–2019) of the Performance Share Plan as of the beginning of 2017. At the end of the reporting period 138 persons participated in the plan and they had been allocated in total 1,789,000 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 2016, the Board approved the commencement of the new plan (plan 2017–2019) of Restricted Share Pool Program as of the beginning of 2017. 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 58 persons participated in the plan and they have been allocated in total 81,500 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 2017, the Board of Directors approved the delivery of the second 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 2017, the Board of Directors approved the delivery of the first reward tranches from the plan. After deduction for applicable taxes, the net number of shares delivered was 323,671. At the end of the reporting period 30 persons participated in the plan.

In December 2017, the Board of Directors approved the commencement of plan 2018–2020 of the Performance Share Plan 2012 and the Restricted Share Pool 2012 as of the beginning of 2018.

The total estimated fair value of the share-based payment plans is EUR 32 million on December 31, 2017. 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.

Share-based payments included in employee benefit expenses

€ million	2017	2016
Equity-settled share-based payment transactions	**–7**	–3
Cash-settled share-based payment transactions	**–9**	–6
	–16	–9
Total carrying amount of liabilities for cash-settled arrangements on Dec 31	**10**	6

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

	Performance Share Plan		
Grant date	Feb 11, 2015	Feb 10, 2016	Feb 10, 2017
Vesting period	Jan 1, 2015–Dec 31, 2017	Jan 1, 2016–Dec 31, 2018	Jan 1, 2017–Dec 31, 2019
Vesting conditions			
Non-market	EBIT excluding non-recurring items and a cash flow measure for the year 2015; and return on operating capital ranking among peers and debt-to-equity ratio (gearing) in 2017	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
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	April 30, 2015	Dec 9, 2016	April 26, 2017
Vesting period	Jan 1, 2015–Dec 31, 2017	Jan 1, 2016–Dec 31, 2018	Jan 1, 2017–Dec 31, 2019
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
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	In shares and cash

The fair value of share-based incentive programs are determined using relevant mathematical modeling.

Share values used in valuations

€	Share price at the end of the reporting period	Incentive share fair value at the grant date
Performance Share Plan		
Vesting period 2015–2017	7.74	4.82
Vesting period 2016–2018	7.74	2.11
Vesting period 2017–2019	7.74	9.80
Restricted Share Pool Program		
Vesting period 2015–2017	7.74	5.41
Vesting period 2016–2018	7.74	7.81
Vesting period 2017–2019	7.74	9.80
Matching Share Plan for the CEO	7.74	2.50
Matching Share Plan for the management [1]	7.74	5.35

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

19. Financial risk management, capital management and insurances

The main objective of financial risk management is 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 gearing and leverage according to set targets. The objective of capital management is to secure the ability to continue as a going concern and to optimize the 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 caused by insurable risk.

The Board has approved the risk management policy, which defines responsibilities, process and other main principles of risk management. The Board 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 metal price risk with Outokumpu Oyj, which does most of the Group's foreign exchange and metal 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 as part of 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 in 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 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 following table.

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 cost in the UK and Sweden cause foreign exchange risk for Outokumpu. Outokumpu hedges most of its fair value risk which relates to currency denominated accounts receivables, accounts payables, debt, cash, loan receivables and commodity derivatives. Cash flow risk related to firm commitments, e.g. price fixed sales and purchase orders, is hedged to a large extent, whereas forecasted and probable cash flows can be hedged selectively.

The main dollar risks are caused by captive ferrochrome production and chrome being priced in US dollars, as well as sales margins including dollar-linked stainless scrap purchase discount benefits.

Sensitivity of financial instruments to market risks

€ million	Dec 31, 2017 In profit or loss	Dec 31, 2017 In other comprehensive income	Dec 31, 2016 In profit or loss	Dec 31, 2016 In other comprehensive income
+/–10% change in EUR/USD exchange rate	+0/–0	–	+5/–4	–
+/–10% change in EUR/SEK exchange rate	–6/+7	–6/+7	–6/+8	–9/+11
+/–10% change in nickel price in USD	–1/+2	–	–2/+1	–
+/–1% parallel shift in interest rates	+0/–0	–	–4/+4	–

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 23–36%. With +/–30% change in dollar denominated price, the effect in profit or loss is about EUR –2/+16 million for nickel derivatives.

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This risk is hedged with derivative contracts to the extent of invoices and orders. Internal US dollar and Swedish krona denominated financing causes significant exchange rate risk, which is hedged with forward contracts and, if possible, with matching debt. The Group's fair value currency position is presented in a more detailed level in the following table.

Outokumpu has net income and net investment translation risk mainly in US dollars, Swedish kronas and British pounds. Based on the policy this risk can be hedged selectively. In 2017 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 US dollars and Swedish krona denominated internal loans.

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.

US dollar, euro and Swedish krona have substantial contribution to the overall interest rate risk. Approximately 44% (2016: 34%) 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, 2017 was 6.7% (Dec 31, 2016: 7.2%). Interest rate position is presented on a more detailed level in the table below. 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, 2017				Dec 31, 2016			
€ million	SEK	USD	GBP	Other	SEK	USD	GBP	Other
Trade receivables and payables	23	–182	16	8	1	–178	12	6
Loans and bank accounts [1]	534	581	–33	–12	596	556	0	7
Derivatives	–479	–361	1	1	–475	–409	–28	–10
Net position	**78**	**38**	**–16**	**–3**	122	–30	–15	3

Foreign exchange positions of SEK-based companies

	Dec 31, 2017				Dec 31, 2016			
€ million	EUR	USD	GBP	Other	EUR	USD	GBP	Other
Trade receivables and payables	55	–36	–33	5	52	–13	–26	2
Loans and bank accounts [1]	20	16	5	3	20	13	2	1
Derivatives	–162	–18	21	–18	–159	–30	14	–10
Net position	**–87**	**–39**	**–8**	**–10**	–87	–31	–10	–7

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

Currency distribution and re-pricing of outstanding net debt

€ million Currency	Dec 31, 2017 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
Other	–38	–36	0.9	0.0	–0.7
	1,091	**–12**			**3.5**

€ million Currency	Dec 31, 2016 Net debt [1]	Derivatives [2]	Average rate, % [1]	Duration, year [3]	Rate sensitivity [4]
EUR	1,362	–1,057	5.6	9.0	–4.5
SEK	–17	582	–0.3	0.1	5.7
USD	–31	524	0.7	0.2	4.9
Other	–71	–17	0.8	0.0	–0.9
	1,242	32			5.2

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

[2] Net derivative liabilities include nominal value of interest rate and cross currency swaps 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. The euro sum of these is low, which causes the presented duration to be high. Duration of euro-denominated net debt is 2.1 years (2016: 2.5 years).

[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 some EUR 267 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. In addition, the volumes and discounts related to stainless scrap purchases have major impact on nickel price risk. Since there is no established financial market for chrome, this risk is not categorized as financial.

Apart from chrome, changes in nickel price is the most important metal price risk for Outokumpu. A majority of stainless steel sales contracts include an alloy surcharge clause, with the aim of reducing the risk arising from the timing difference between alloy metal purchase and stainless steel 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 2017 the hedging ratio has been between 20 and 80 percent. Nickel forwards and options have been used to manage impacts of nickel price changes on earnings, whereas effiicient working capital management helps to reduce cash flow variations caused by metal prices.

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.

Outokumpu manages energy price risk centrally. The Group has hedged propane price risk by keeping inventories and by fixing purchase prices in its supply contracts. Power price risk is reduced with fixed price supply contracts and partial ownerships in power utilities.

Security price risk

Outokumpu has investments in equity and fixed income securities. On December 31, 2017 the biggest investments were in Voimaosakeyhtiö SF (equity investment EUR 63 million) and OSTP Holding Oy (investment in associated company EUR 25 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 166 MW power once the project has been completed. The accounting value of this ownership is currently at cost, since it has not been possible to determine fair value of the investment in a reliable manner. The risk related to this shareholding has been assessed in 2017 and both impact and likelihood of risk realizing have increased from previous assessment.

The captive insurance company Visenta Försäkringsaktiebolag has investments totalling EUR 16 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 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 credit insurances, which typically cover some 90 percent of the insured amount. Part of the credit risk related to trade receivables is managed with bank guarantees, letters of credit and advance payments.

On December 31, 2017 the maximum exposure to credit risk of trade receivables was EUR 493 million (2016: EUR 471 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 receivables from 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.

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 forecasted cash flows, 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 gearing and leverage levels are key targets and outcomes of the planning. In 2017 good profitability and free cash flow allowed to focus on cost of debt optimization. Finance cost reduction efforts included e.g. call of the notes due 2019 (EUR 250 million), partial calls of the notes due 2021 (EUR 47.5 million), prepayments of

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pensions loans, drawing of new long-term pension loans, and amendment of revolving credit facility, which led to maturity extension. The amendment to the facility was signed in December 2017.

In May and November, Outokumpu Oyj received upgrades in corporate family rating to B1 and B1-PD probability default rating from Moody's. The 2019 and 2021 secured notes were also upgraded twice by Moody's and at year-end the rating of the notes due 2021 was at Ba3. All 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 revolving bilateral credit facilitiy of EUR 90 million maturing in February 2019, and an uncommitted Finnish commercial paper program totaling EUR 800 million. Revolving credit facilities, certain bilateral bank loans and the notes due in 2021 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. In connection with the amendment of the revolving credit facility part of the security and certain guarantee obligations were agreed to be released.

As at December 31, 2017, Outokumpu had a total amount of EUR 740 million committed credit facilities, of which all is long-term. More information on liquidity and refinancing risk is presented in the following table.

Contractual cash flows

2017 € million	Balance Dec 31	2018	2019	2020	2021	2022	2023–
Bonds	201	–	–	–	203	–	–
Convertible bond	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						
Outflows		2,990	–	–	–	–	–
Inflows		–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.

2016 € million	Balance Dec 31	2017	2018	2019	2020	2021	2022–
Bonds	496	–	–	250	–	250	–
Convertible bonds	219	–	–	–	250	–	–
Loans from financial institutions	89	64	7	6	6	4	1
Pension loans	165	8	33	46	43	23	13
Finance lease liabilities	155	65	5	2	3	51	28
Commercial papers	321	321	–	–	–	–	–
Trade payables	1,111	1,111	–	–	–	–	–
Interest payments and facility charges		75	69	59	34	18	122
Currency derivatives	26						
Outflow		2,660	–	–	–	–	–
Inflow		–2,634	–	–	–	–	–
Interest derivatives	5	2	1	1	0	–	–
Metal derivatives	2	2	–	–	–	–	–
Other derivatives	–	–	–	–	–	–	–
		1,674	115	364	336	346	164

On December 31, 2016, the Group had cash and cash equivalent amounting to EUR 204 million and committed available long-term credit facilities totaling EUR 757 million. In addition, there was a fully unutilized EUR 145 million committed credit facility which matured in the end of February 2017.

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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 on investments. 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.

Tools to manage debt capital structure include loan prepayments and liability management measures, such as the use of call options of issued notes. In 2017 Outokumpu called all (EUR 250 million) notes due 2019 and part (EUR 47.5 million) of the notes due 2021. The revolving credit facility includes one financial covenant, which is based on gearing. The notes maturing in 2021 include incurrence based financial covenant on gearing. The gearing covenant level in notes due 2021 is 120% until June 16, 2018 and 110% thereafter.

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.

Outokumpu's captive insurance company, 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 gearing 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. Net debt is calculated as total current and non-current debt less cash and cash equivalents. Outokumpu targets are to have gearing below 35 percent and leverage below 1.0. Outokumpu also targets to improve its current credit ratings.

On December 31, 2017, net debt was EUR 1,091 million (2016: EUR 1,242 million), total equity EUR 2,721 million (2016: EUR 2,416 million) and gearing 40.1% (2016: 51.4%) and leverage 1.7 (2016: 4.0). The decrease in gearing resulted primarily from good profitability, low net cash from investing activities and recognition of deferred tax assets. Leverage decreased significantly mainly due to improved EBITDA.

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 2017 insurance renewal Outokumpu chose to increase deductibles of certain insurance policies.

During the reporting year there were no serious fires. Tornio site suffered from a few serious machinery breakdown incidents, including a damage occurred in ferrochrome meltshop. Claim process is ongoing in regards of the Tornio incidents. Fire safety and machinery breakdown audits were carried out mainly as planned.

Visenta Försäkringsaktiebolag, a captive insurance company owned by Outokumpu, can act as direct insurer and as reinsurer. Visenta is registered in Sweden and it has assets totaling EUR 21 million (2016: EUR 26 million). Visenta has issued a surety bond to support the Outokumpu's pension scheme in the UK.

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20. Fair values and nominal amounts of derivative instruments

€ million	2017 Positive fair value	2017 Negative fair value	2017 Net fair value	2016 Net fair value	2017 Nominal amounts	2016 Nominal amounts
Currency and interest rate derivatives						
Currency forwards	29	17	**11**	–25	**2,994**	2,647
Currency options, bought	0	0	**0**	–	**12**	–
Interest rate swaps	–	3	**–3**	–5	**150**	777
					Tonnes	Tonnes
Metal derivatives						
Forward and futures nickel contracts	12	19	**–6**	–2	**18,581**	27,233
Nickel options, bought	0	1	**–1**	–	**9,800**	–
Nickel options, sold	–	–	**–**	–1	**–**	1,800
Emission allowance derivatives	3	–	**3**	–	**2,400,000**	–
Total derivatives	44	40	**4**	–33		
Less long-term derivatives						
Interest rate swaps	–	3	**–3**	–4		
Forward and futures nickel contracts	1	–	**1**	–		
Short-term derivatives	43	37	**6**	–29		

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.

Fair value of bought nickel options is negative due to premium liability.

Hedge accounted cash flow hedges

Outokumpu has hedged currency spot price risk related to SEK denominated long-term electricity supply agreement for the Finnish production sites. The currency derivatives, which hedge the currency risk, mature in other periods in year 2018 than the underlying cash flows of electricity purchases. The derivatives will be prolonged later to mature at the same period as the underlying cash flows.

€ million	2017 Nominal amount	2017 Fair value of outstanding cash flow hedges	2017 Equity	2016 Nominal amount	2016 Fair value of outstanding cash flow hedges	2016 Equity
Maturity < 1 year	40	–1	–1	41	0	0
Maturity 1–5 years	39	–1	–1	81	0	–1
	78	**–2**	**–3**	122	0	–1

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	2017	2016
Derivative assets		
Gross amounts of recognized financial assets in the statement of financial position	**44**	34
Related financial instruments that are not offset	**29**	33
	15	1
Derivative liabilities		
Gross amounts of recognized financial liabilities in the statement of financial position	**40**	67
Related financial instruments that are not offset	**29**	33
	11	34

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21. Inventories

€ million	2017	2016
Raw materials and consumables	**423**	376
Work in progress	**540**	508
Finished goods and merchandise	**416**	347
Advance payments	**1**	2
	1,380	1,232

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 5 million were recognized in income statement during the financial year (2016: reversals of write-downs amounting to EUR 26 million). More details on commodity price risk are presented in note 19.

22. Trade and other receivables

€ million	2017	2016
Non-current		
Loans receivable	**–**	1
Other accruals and receivables	**1**	1
	1	2
Current		
Trade receivables	**493**	471
VAT receivable	**37**	36
Income tax receivable	**19**	25
Loans receivable	**–**	5
Prepaid insurance expenses	**7**	7
Other accruals	**37**	45
Other receivables	**67**	98
	659	687
Allowance for impairment of trade receivables		
Allowance on Jan 1	**6**	19
Additions	**0**	12
Deductions	**–0**	–22
Recovery of doubtful receivables	**–0**	–3
Allowance on Dec 31	**6**	6
Age analysis of trade receivables		
Neither impaired, nor past due	**425**	421
Past due 1–30 days	**56**	38
Past due 31–60 days	**5**	5
More than 60 days	**6**	6
	493	471

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.

As of December 31, 2017 Outokumpu has derecognized trade receivables totaling EUR 377 million (2016: EUR 387 million), which represents fair value of the assets. Net proceeds received totaled EUR 357 million (2016: EUR 364 million). Underlying assets have maturity less than one year. The maximum amount of loss related to derecognized assets is estimated to be EUR 15 million (2016: EUR 17 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	2017	2016
Cash at bank and in hand	**112**	203
Short-term bank deposits	**0**	0
	112	204
Bank overdrafts [1)]	**–7**	–
	105	204

[1)] Presented in current debt in the 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 2017 was 0.7% (Dec 31, 2016: 0.2%).

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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, 2016	415,489	311	714	2,103	3,127
Shares delivered from the share-based payment programs [1]	371	–	–	–	–
Treasury share purchase	–2,000	–	–	–	–
On Dec 31, 2016	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**
Treasury shares [1]	3,703				
Total number of shares on Dec 31, 2017	**416,374**				

[1] Shares granted from treasury shares without effect to share capital.

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

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

Other reserves includes 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

Retained earnings include remeasurements of defined benefit plans, treasury shares, cumulative translation differences and other retained earnings and losses.

Distributable funds

On December 31, 2017, the distributable funds of the parent company totaled EUR 2,413 million of which retained earnings were EUR 289 million. The Board of Directors proposes to the Annual General Meeting in 2018 that a dividend of EUR 0.25 per share is paid for 2017 (dividend of EUR 0.10 paid for 2016).

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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 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 UK scheme provides pensions in retirement and death benefits to members. In October 2016, Outokumpu closed its defined benefit pension scheme in the UK to future pension accruals and made changes to the terms of retirement. All members have joined a defined contribution scheme. As a result, the net pension obligation decreased due to a curtailment of EUR 26 million.

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.

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 below.

Asset volatility: The level of equity returns is a key factor in the overall investment return. If a plan holds significant proportion of equities, which are expected to outperform corporate bonds in the long-term, it might face higher volatility and risk in the short-term. The investment portfolio might also be subject to a range of other risks typical of the assets held, in particular credit risk on bonds and exposure to the property market.

Change in bond yields: A decrease in corporate bond yields will increase plan liabilities, although this will be partially offset by an increase in the value of the 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 UK preliminary pension fund's valuation was completed in 2015 with a deficit of GBP 27 million. In 2016, Outokumpu made contributions totaling GBP 20 million to the plan to cover the deficit, and the remaining GBP 7 million was paid in 2017. The valuation was not based on the 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	2017	2016
In EBIT	**–7**	17
In financial income and expenses	**–4**	–6
Defined benefit cost recognized in the consolidated statement of income	**–11**	11
In other comprehensive income	**18**	–63
Total defined benefit cost recognized	**8**	–53

Amounts recognized in the consolidated statement of financial position

€ million	2017	2016
Present value of funded defined benefit obligations	**441**	497
Present value of unfunded defined benefit obligations	**311**	307
Fair value of plan assets	**–503**	–527
Net defined benefit liability	**249**	276

€ million	2017	2016
Defined benefit liability	**319**	322
Other long-term employee benefit liabilities	**18**	34
Defined benefit assets	**–70**	–45
Net liability	**267**	311

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Movement in net defined benefit liability

€ million	2017 Present value of obligation	2017 Fair value of plan assets	2017 Net defined benefit liability	2016 Present value of obligation	2016 Fair value of plan assets	2016 Net defined benefit liability
On Jan 1	804	–527	276	812	–516	295
Current service cost	7	–	7	10	–	10
Interest expense/(income)	17	–13	4	25	–19	6
Remeasurements arising from						
Return on plan assets	–	–12	–12	–	–74	–74
Demographic assumptions	8	–	8	1	–	1
Financial assumptions	5	–	5	140	–	140
Experience adjustment	–20	–	–20	–4	–	–4
Exchange differences	–19	18	–1	–64	70	7
Employer contributions	–	–18	–18	–	–38	–38
Contributions by plan participants	0	–0	0	1	–1	–0
Benefits paid	–40	40	0	–36	36	–
Curtailments	–0	–	–0	–27	–	–27
Reclassification to liabilities directly attributable to assets held for sale	–	–	–	–53	15	–38
Disposed subsidiaries	–12	9	–3	–	–	–
Other change	–	–	–	–2	–	–2
On Dec 31	**752**	**–503**	**249**	804	–527	276

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, 2017 was EUR 305 million (Dec 31, 2016: EUR 305 million). For the UK, the present value of obligation on December 31, 2017 was EUR 414 million (Dec 31, 2016: EUR 451 million), and the fair value of plan assets was EUR 485 million (Dec 31, 2016: EUR 496 million).

The expected contributions to be paid to the defined benefit plans in 2018 are EUR 16 million.

Allocation of plan assets

€ million	2017	2016
Equity instruments	**68**	81
Debt instruments	**271**	277
Real estate	**1**	4
Investment funds	**0**	3
Other assets	**159**	160
Total plan assets	**499**	525

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, %	**2017**	**1.51**	**2.50**	**2.76**
	2016	1.75	2.75	3.82
Future salary increase, %	**2017**	**–**	**–**	**2.18**
	2016	–	–	2.24
Inflation rate, %	**2017**	**–**	**3.20**	**–**
	2016	–	3.50	–
Future benefit increase, %	**2017**	**1.51**	**2.95**	**–**
	2016	1.50	3.15	–
Medical cost trend rate, %	**2017**	**–**	**–**	**6.20–6.60**
	2016	–	–	6.60–7.00
Life expectancy	**2017**	Modified from RT 2005 G	96% SAPS All Pensioner Amounts tables	Standard mortality tables
	2016	Modified from RT 2005 G	110% 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 17.2 years. In Germany and in the UK the weighted average durations are 14.4 and 20.0 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
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%	
2016			
Discount rate	0.5%	Decrease by 7%	Increase by 8%
Future benefit increase	0.5%	Increase by 4%	Decrease by 4%
Life expectancy	1 year	Increase by 3%	

The UK	Change in assumption	Increase in assumption	Decrease in assumption
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%	
2016			
Discount rate	0.5%	Decrease by 10%	Increase by 12%
Future benefit increase	0.5%	Increase by 7%	Decrease by 7%
Life expectancy	1 year	Increase by 3%	

Other countries	Change in assumption	Increase in assumption	Decrease in assumption
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%	
2016			
Discount rate	0.5%	Decrease by 6%	Increase by 7%
Medical cost trend rate	0.5%	Increase by 8%	Decrease by 6%
Future salary increase	0.5%	Increase by 1%	Decrease by 1%
Life expectancy	1 year	Increase by 4%	

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, 2017 were EUR 18 million (Dec 31, 2016: EUR 34 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.

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26. Provisions

€ million	Restructuring provisions	Environmental provisions	Other provisions	Total
Provisions on Jan 1, 2017	54	64	15	133
Translation differences	–0	–1	–0	–1
Increases in provisions	3	5	4	12
Disposed subsidiaries	–	–2	–0	–2
Utilized during the financial year	–25	–6	–4	–35
Unused amounts reversed	–9	–1	–3	–13
Provisions on Dec 31, 2017	**23**	**59**	**12**	**93**

€ million	2017	2016
Non-current provisions	**79**	118
Current provisions	**14**	15
	93	133

Restructuring provisions

Restructuring provision 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, 2017 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 take place between the years 2018–2024.

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, in the UK, and in 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	2017	2016
Non-current		
Bonds	**201**	496
Convertible bonds	**229**	219
Loans from financial institutions	**18**	24
Pension loans	**165**	158
Finance lease liabilities	**85**	90
	698	987
Current		
Loans from financial institutions	**16**	64
Pension loans	**6**	8
Finance lease liabilities	**5**	65
Commercial papers	**477**	321
	505	458
Net debt		
Non-current and current debt	**1,203**	1,445
Cash and cash equivalents	**–112**	–204
Net debt	**1,091**	1,242

The bond maturing 2021 as well as most of the bank loans 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 33

Changes in non-current and current debt

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**

2016

€ 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	1,070	179	179	28	339	1,796
Translation differences	–7	0	–	–	–	–7
Financing cash flows [1]	–108	–179	–	–28	–13	–328
Transfer to current debt	–67	67	–65	65	–	–
Other non-cash movements	10	0	–24	0	–	–14
On Dec 31	897	67	90	65	326	1,445

[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 (2016: receipt of this guarantee payment and EUR 6 million of proceeds from disposal of available for sale financial assets). In consolidated statement of cash flows, these items are 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 2017	2016
2014 fixed rate bond maturing on Sept 30, 2019	6.625	**–**	250
2016 fixed rate bond maturing on June 16, 2021	7.250	**203**	250
		203	500

Convertible bonds

€ million	Interest rate, %	Outstanding amount 2017	2016
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 7.35. 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	2017	2016
Not later than 1 year	**14**	77
Between 1 and 5 years	**83**	96
Later than 5 years	**149**	151
Future finance charges	**–157**	–169
Present value of minimum lease payments	**90**	155

Present value of minimum lease payments

€ million	2017	2016
Not later than 1 year	**5**	65
Between 1 and 5 years	**56**	61
Later than 5 years	**29**	29
Present value of minimum lease payments	**90**	155

28. Trade and other payables

€ million	2017	2016
Non-current		
Accruals	**34**	37
Current		
Trade payables	**1,162**	1,111
Accrued employee-related expenses	**77**	77
Accrued interest expenses	**6**	11
VAT payable	**26**	33
Advances received	**8**	7
Withholding tax and social security liabilities	**19**	20
Payables related to factoring programs	**50**	48
Guarantee payment received related to SKS divestment	**–**	39
Other accruals	**46**	51
Other payables	**48**	63
	1,441	1,459

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 33

29. Commitments and contingent liabilities

€ million	2017	2016
Mortgages and pledges on Dec 31		
Mortgages	**2,984**	3,447
Other pledges	**13**	13
Guarantees on Dec 31		
On behalf of subsidiaries for commercial and other commitments	**27**	27
On behalf of other companies for commercial and other commitments	**–**	2
Other commitments on Dec 31	**21**	16

Mortgages relate mainly to securing 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 to secure certain liabilities of Manga LNG Oy. Outokumpu's total liability at the end of 2017 amounted to EUR 31 million (2016: EUR 22 million), and the part exceeding the share pledge is presented under other commitments.

Outokumpu Oyj is, in relation to its shareholding in Kymppivoima Tuotanto Oy and Etelä-Pohjanmaan Voima Oy, liable for the costs, commitments and liabilities relating to electricity provided by Rapid Power Oy. In year-end 2017, Rapid Power had no net debt. In the year-end 2016 Outokumpu's liability for the net debt of Rapid Power Oy amounted to EUR 4 million. 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 2017 amounted to EUR 2 million (2016: EUR 3 million). These liabilities are reported under other commitments.

One remaining guarantee issued by ThyssenKrupp on behalf of Inoxum companies has not yet been transferred to Outokumpu Oyj as of December 31, 2017. However, Outokumpu Oyj has given ThyssenKrupp a counter-guarantee for this commitment amounting to EUR 3 million.

Present value of minimum lease payments on operating leases

€ million	2017	2016
Not later than 1 year	**11**	10
Between 1 and 5 years	**30**	27
Later than 5 years	**47**	50
	88	87

Operating leases include lease agreements on Group companies' premises.

Outokumpu's share of the Fennovoima investment is about EUR 250 million of which EUR 63 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 28 million on December 31, 2017 (Dec 31, 2016: EUR 19 million).

30. Disputes and litigations

Dispute over invention rights, Outotec vs. Outokumpu

Outokumpu and Outotec Oyj had since 2013 a dispute relating to innovations on ferroalloy technology. On January 9, 2017, the companies reached an agreement whereby both parties withdrew their claims. Outotec was granted an exclusive right to sell and license the relevant innovations and technology against an agreed license fee payable to Outokumpu. Outokumpu retains the right to use the innovations in its own business.

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 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 Bilbao court of first instance in Spain has accepted the claim of EUR 20 million brought against Outokumpu and the two other companies. Outokumpu and the two other companies have appealed the court's decision.

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 was 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 former tax installments paid by ThyssenKrupp Italia in 2006 which have not been properly settled towards AST in the following years. The matter is currently pending in court.

Antitrust investigation in Germany

On September 22, 2016, Outokumpu's subsidiary in Germany (Outokumpu Nirosta GmbH) received a letter from the German Federal Cartel Office stating that the company has been included in an ongoing investigation of possible infringements of antitrust laws in the past. Following an internal investigation, Outokumpu's view is that the official investigation on it is without merit.

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 33

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, owns 22.8% of Outokumpu on December 31, 2017. 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	2017	2016
Sales	**104**	142
Purchases	**–5**	–6
Dividend income	**2**	–
Trade and other receivables	**25**	29
Trade and other payables	**0**	1

Employee benefits for the key management

€ thousand	2017	2016
Short-term employee benefits	**7,848**	7,956
Post-employment benefits [1]	**1,792**	1,243
Share-based payments	**6,449**	4,485
Remuneration to the Board of Directors	**617**	763
	16,706	14,447

[1] Includes only supplementary pensions.

In 2016, key management received EUR 978,000 related to financing arrangements of the matching share plans. In 2017 the item had been settled.

Employee benefits for CEO and Deputy CEO

€ thousand	Salaries and other short-term benefits	Bonuses	Post-employment benefits	Share-based payments	Total
2017					
CEO	**1,073**	**701**	**612**	**1,787**	**4,173**
Deputy to the CEO	**440**	**249**	**196**	**700**	**1,584**
2016					
CEO	1,137	948	675	3,001	5,762
Deputy to the CEO [1]	530	168	336	64	1,099

[1] Christoph de la Camp as of July 1, 2016; Reinhard Florey until June 30, 2016.

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. The pension of the deputy to the CEO until June 30, 2016 was also under 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	2017	2016
Chairman Jorma Ollila	**148**	151
Vice Chairman Olli Vaartimo	**89**	91
Member Markus Akermann	**74**	82
Member Roberto Gualdoni	**78**	82
Member Kati ter Horst, as of April 6, 2016	**69**	65
Member Heikki Malinen	**68**	70
Member Eeva Sipilä, as of March 21, 2017	**67**	–
Member Saila Miettinen-Lähde, as of April 6, 2016 and until June 9, 2017	**18**	71
Member Stig Gustavson, until March 21, 2017	**2**	70
Member Elisabeth Nilsson, until March 21, 2017	**5**	82
	617	763

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 33

32. Subsidiaries on December 31, 2017

		Country	Group holding, %
Europe			
Hernandez Edelstahl GmbH		Germany	100
Outokumpu AS		Norway	100
Outokumpu Asia Pacific Ltd		China	100
Outokumpu B.V.		The Netherlands	100
Outokumpu Chrome Oy	*)	Finland	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	1)	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 Nordic AB		Sweden	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 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 Coil, Inc.		The US	100
Outokumpu Stainless USA, LLC		The US	100
ThyssenKrupp Mexinox CreateIT, S.A. de C.V.		Mexico	100
Long Products			
Outokumpu Stainless Bar, LLC		The US	100
Outokumpu Stainless Ltd		The UK	100
Other operations			
2843617 Canada Inc.		Canada	100
Orijärvi Oy	*)	Finland	100
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 Holding UK Limited		The UK	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
Outokumpu Treasury Belgium N.V./SA	*)	Belgium	100
Viscaria AB	*)	Sweden	100
Visenta Försäkrings AB		Sweden	100

In addition Outokumpu has agents and branch offices in Argentina, Bulgaria, Chile, Colombia, Egypt, Estonia, Greece, Israel, South Korea, Lebanon, Peru, Slovenia, Switzerland, Taiwan, Thailand, Venezuela 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

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 33

33. Events after the reporting period

Outokumpu changed its segment reporting by separating Ferrochrome from business area Europe as an operating segment as of January 1, 2018. In the new structure, Outokumpu has four operating segments – Europe, the Americas, Long Products and Ferrochrome. Ferrochrome operations consist of a chromium mine in Kemi, Finland and ferrochrome production in Tornio, Finland.

2017 comparison data for operating segments as of Jan 1, 2018

						Reconciliation		
€ million	Europe	Americas	Long Products	Ferrochrome	Operating segments total	Other operations	Eliminations	Group
External sales	4,079	1,512	405	127	6,123	239	–	6,363
Inter-segment sales	85	33	186	483	788	268	–1,056	–
Sales	4,164	1,546	591	610	6,911	507	–1,056	6,363
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	–	–	–	–	–	–	–	64
Net result for the financial year	–	–	–	–	–	–	–	392
Assets in operating capital	2,883	1,382	241	752	5,258	253	–260	5,251
Other assets	–	–	–	–	–	–	–	340
Deferred tax assets	–	–	–	–	–	–	–	295
Total assets	–	–	–	–	–	–	–	5,886
Liabilities in operating capital	1,035	310	128	104	1,577	264	–235	1,606
Other liabilities	–	–	–	–	–	–	–	1,549
Deferred tax liabilities	–	–	–	–	–	–	–	10
Total liabilities	–	–	–	–	–	–	–	3,164
Operating capital	1,848	1,072	113	648	3,681	–11	–25	3,645
Net deferred tax asset	–	–	–	–	–	–	–	285
Capital employed	–	–	–	–	–	–	–	3,929

Parent company financial statements

Income statement of the parent company

€ million	2017	2016
Sales	**505**	561
Cost of sales	**–384**	–451
Gross margin	**121**	109
Other operating income	**135**	9
Selling and marketing expenses	**–18**	–27
Administrative expenses	**–115**	–123
Other operating expenses	**–1**	–20
EBIT	**123**	–52
Financial income and expenses	**9**	157
Result before appropriations and taxes	**132**	105
Appropriations		
Group contribution	**97**	0
Change in depreciation difference	**–2**	0
Income taxes	**–0**	–1
Result for the financial year	**227**	105

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	2017	2016
ASSETS		
Non-current assets		
Intangible assets	**40**	28
Property, plant and equipment	**20**	21
Financial assets		
Shares in Group companies	**4,002**	4,037
Loan receivables from Group companies	**924**	428
Shares in associated companies	**31**	31
Other shares and holdings	**64**	49
Other financial assets	**1**	–
	5,021	4,545
Total non-current assets	**5,080**	4,594
Current assets		
Current receivables		
Interest-bearing	**1,223**	1,774
Non interest-bearing	**247**	163
	1,471	1,937
Cash and cash equivalents	**61**	124
Total current assets	**1,532**	2,062
TOTAL ASSETS	**6,612**	6,655

€ million	2017	2016
EQUITY AND LIABILITIES		
Shareholders' equity		
Share capital	**311**	311
Premium fund	**720**	720
Invested unrestricted equity reserve	**2,123**	2,123
Retained earnings	**63**	19
Result for the financial year	**227**	105
	3,444	3,278
Untaxed reserves		
Accumulated depreciation difference	**2**	0
Liabilities		
Non-current liabilities		
Interest-bearing	**625**	915
	625	915
Current liabilities		
Interest-bearing	**2,315**	2,190
Non interest-bearing	**227**	272
	2,542	2,462
Total liabilities	**3,166**	3,377
TOTAL EQUITY AND LIABILITIES	**6,612**	6,655

Cash flow statement of the parent company

€ million	2017	2016
Cash flow from operating activities		
Result for the financial year	**227**	105
Adjustments for		
Taxes	**–0**	1
Depreciation and amortization	**6**	6
Impairments	**–135**	8
Gain/loss on sale of intangible assets, and property, plant and equipment	**0**	–2
Interest income	**–93**	–124
Dividend income	**–0**	–119
Interest expense	**54**	64
Change in provisions	**1**	–1
Exchange gains and losses	**5**	–2
Gain on disposal of other financial assets	**–**	–5
Group contributions	**–99**	–0
Other non-cash adjustments	**0**	2
	–261	–173
Change in working capital		
Change in trade and other receivables	**8**	47
Change in trade and other payables	**26**	23
	35	71
Dividends received	**0**	119
Interest received	**96**	124
Interest paid	**–59**	–69
Income taxes paid	**–0**	–1
	37	174
Net cash from operating activities	**38**	176

€ million	2017	2016
Cash flow from investing activities		
Investments in subsidiaries and other shares and holdings	**–15**	–267
Purchases of property, plant and equipment	**–0**	–1
Purchases of intangible assets	**–38**	–28
Proceeds from disposal of subsidiaries and other disposals	**170**	4
Proceeds from sale of property, plant and equipment	**–0**	0
Proceeds from sale of intangible assets	**24**	8
Proceeds from sale of other financial assets	**0**	0
Change in other long-term receivables	**–418**	11
Net cash from investing activities	**–277**	–272
Cash flow before financing activities	**–240**	–95
Cash flow from financing activities		
Dividends paid	**–41**	–
Treasury shares purchase	**–20**	–7
Proceeds from disposal of other financial assets	**–**	6
Borrowings of non-current debt	**190**	369
Repayments of non-current debt	**–538**	–637
Change in current debt	**130**	–400
Cash flow from group contribution	**0**	–
Other financing cash flow	**454**	751
Net cash from financing activities	**177**	81
Net change in cash and cash equivalents	**–63**	–14
Net change in cash and cash equivalents in the balance sheet	**–63**	–14

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, 2016	311	720	2,123	26	3,180
Result for the financial year	–	–	–	105	105
Treasury shares repurchase	–	–	–	–7	–7
Equity on Dec 31, 2016	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**	**290**	**3,444**

Distributable funds on Dec 31

€ million	2017	2016
Retained earnings	**63**	19
Result for the financial year	**227**	105
Invested unrestricted equity reserve	**2,123**	2,123
Distributable funds on Dec 31	**2,413**	2,247

Commitments and contingent liabilities of the parent company

€ million	2017	2016
Pledges on Dec 31	**13**	13
Guarantees on Dec 31		
On behalf of subsidiaries		
For financing	**295**	304
For commercial guarantees	**0**	1
For other commitments	**27**	26
Other commitments on Dec 31	**21**	16

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

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 2017 amounts to EUR 31 million (2016: EUR 22 million), and the part exceeding the share pledge is presented under other commitments.

Outokumpu Oyj is, in relation to its shareholding in Kymppivoima Tuotanto Oy and Etelä-Pohjanmaan Voima Oy, liable for the costs, commitments and liabilities relating to electricity provided by Rapid Power Oy. At the year-end 2017 Rapid Power had no net debt. At the year-end 2016 Outokumpu's liability for the net debt of Rapid Power Oy amounted to EUR 4 million. 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 at the year-end 2017 amounted to EUR 2 million (2016: EUR 3 million). These liabilities are reported under other commitments.

One remaining guarantee issued by ThyssenKrupp on behalf of Inoxum companies has not yet been transferred to Outokumpu Oyj as of December 31, 2017. However, Outokumpu Oyj has given ThyssenKrupp a counter-guarantee for this commitment amounting to EUR 3 million.

Outokumpu Oyj guaranteed until January 2017 certain subsidiaries' ability to satisfy their financial liabilities when due.

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 2017. The financial statements comprise:

- the consolidated balance sheet, income statement, statement of comprehensive income, statement of changes in equity, statement of cash flows and notes, including a summary of significant accounting policies
- the parent company's balance sheet, income statement, statement of cash flows and notes.

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.

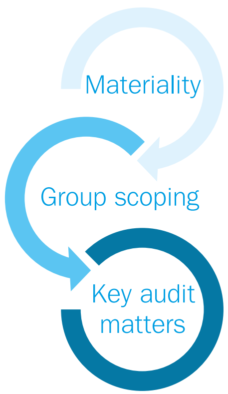
Independence

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: € 20 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 deferred tax assets
- 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	€ 20 million
How we determined it	0.3% of net sales 2017
Rationale for the materiality benchmark applied	We chose net sales as the benchmark because, in our view, it is the most stable and most 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 0,3% which is within the range of acceptable quantitative materiality thresholds in auditing standards.

How we tailored our group audit scope

The scope of our audit was tailored for the Outokumpu Group, taking into account the structure of the group, the industry in which the group operates, and the accounting processes and controls. The group audit scope was focused on the manufacturing companies in Finland, Sweden, Germany, USA, Mexico and the UK and the sales company in 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 2017 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 2017 the Group's Property, Plant and Equipment (PPE) amounted to € 2,633 million, which is 45% of the total assets and 97% of the total equity.

The company'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 EUR 1,380 million as at 31 December 2017.

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 the testing of IT controls and tests of details. • We tested the company's controls around access and change management related to key IT systems. We also tested the company's controls around system inter-faces, 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.
Valuation of deferred tax assets Refer to notes 1 and 9 in the consolidated financial statements. Deferred tax assets are recognised 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. In determining the realisability of deferred tax assets, all positive and negative factors, including past and prospective results, are taken into consideration in determining whether sufficient taxable income will be generated to realize deferred tax assets. These estimates can change depending on the future course of events. The group has recognized deferred tax assets of EUR 352 million on tax loss carry-forwards. We determined this to be a key audit matter because the recognition of deferred tax assets involves significant application of judgement by management in respect of assessing the probability and sufficiency of future taxable profits in the relevant jurisdictions.	• We assessed the amount and availability of tax losses and temporary differences under tax law in the relevant jurisdictions, focusing on the most material balances. • We also assessed whether the historical profitability and management's forecast of future profits in the relevant tax jurisdictions support the recognition of the deferred tax asset.

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 2017, the value of Outokumpu Oyj's subsidiary shares amounted to EUR 4,037 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. • The discount rates applied within the model were assessed by PwC business valuation specialist, including comparison to economic and industry forecasts as appropriate.

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.

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 31 January 2018

PricewaterhouseCoopers Oy
Authorised Public Accountants

Janne Rajalahti
Authorised Public Accountant (KHT)

A world that lasts forever

We believe in a world that is efficient, sustainable, and designed to last forever. The world deserves innovations that can stand the test of time and are ready to be born again at the end of their life cycle. Stainless steel is vital in enabling a sustainable world with economic prosperity.

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outokumpu
working towards a world that lasts forever