

Financial statements 2016

outokumpu
working towards a world that lasts forever



Review by the Board of Directors

The year 2016 was a year of change for Outokumpu. The year started with a new CEO taking the lead. In April the company announced its new vision to become the best value creator in stainless steel by 2020 through customer orientation and efficiency. In addition to the vision and financial targets, the company launched a number of immediate measures in order to improve its cost position and profitability. With the new focus, ambitious targets and drive to turn the company around, Outokumpu reached a positive underlying EBIT in 2016. The improved performance was primarily a result of reduced costs, driven by the new, efficient organization. Furthermore, the business area Americas started heading in right direction as the business area reduced its losses clearly with increased delivery volumes and reduction in costs. Business area Europe, in turn, achieved its targets with EMEA restructuring program and successfully decreased SG&A costs. Outokumpu over-achieved its target to reduce net working capital by EUR 200 million in 2016: the release of EUR 307 million supported the cash flow, and Outokumpu was able to reduce its net debt significantly during the year. Outokumpu has now returned to profitability, but the clear expectation is that the company will deliver EUR 500 million EBIT in 2020 and every effort must be made to reach this goal.

Outokumpu strategy

In April 2016, Outokumpu announced its new vision and measures to drive competitiveness and further improve the financial performance of the company. The vision has been defined as: to be the best value creator in stainless steel by 2020 through customer orientation and efficiency. Simultaneously, Outokumpu outlined its long-term financial targets connected to this vision.

Outokumpu focuses on the following six areas to reach its vision:

1. Safety: a standardized and disciplined approach to safety that correlates with improved quality and operational efficiency, leading to a top decile position in the industry.
2. High performing organization: a lean, simple and flat organization that takes its lead from market trends and requirements, and drives a high level of

individual accountability that is enforced through vigorous performance management.

3. World-class supply chain: the role of the supply chain function elevated to drive optimal matching of market demand and manufacturing capabilities, managing manufacturing programming and planning as well as the required resources and logistics. This will allow our production units to focus on achieving a benchmark level in cost efficiency.
4. Manufacturing excellence: implementing a standardized operating model to ensure continuous productivity gains in all the mills across the company, leading to industry benchmark competitiveness.
5. Commercial excellence: Clear segment-driven commercial strategy to drive margin growth. Profitability driven product strategy to match market demand and optimal mix.
6. Americas: the single biggest profitability improvement lever for Outokumpu, with significant improvement potential in both cost and market position.

Long-term financial targets

In alignment with the vision, Outokumpu's long-term financial targets reflect the progress of the strategic initiatives and the development in profitability and further deleveraging:

- EBIT of EUR 500 million
- ROCE of 12%
- Gearing of <35%

These group-level targets are expected to be reached by the end of 2020 at the latest. While the global demand for stainless steel continues to grow, Outokumpu takes a conservative approach to market growth and metal price assumptions, and expects the targeted profitability improvement to come primarily through efficiency and cost improvements in the current scope of business, supported by further strengthening of Outokumpu's cost competitiveness and market position particularly in the Americas.

Short-term actions

To achieve an immediate step change in profitability, Outokumpu has set a series of short term initiatives.

- New organizational set-up: a simplified organization with three business areas, less management layers and a lighter cost structure. The new organization was implemented in June and the related personnel reductions have developed according to plans.
- A reduction of EUR 100 million in sales, general and administrative costs (SG&A) by the end of 2017 against the baseline of EUR 400 million at the end of 2015. A reduction of EUR 69 million was achieved by the end of 2016.
- A cash release of at least EUR 200 million from net working capital by the end of 2016, particularly through the reduction of inventories. The target was exceeded with a net working capital reduction of EUR 307 million at the end of the year.

Strengthening of the balance sheet remains top priority at Outokumpu. Outokumpu's stated target has been to reduce net debt to EUR 1.2 billion by the end of 2017. However, with the progress in 2016 exceeding the expectations, the company updates its target to reduce net debt to below EUR 1.1 billion by the end of 2017.

Market development

Stainless steel demand

Global apparent stainless steel consumption increased by 6.1% in 2016 compared to the previous year. APAC contributed with a growth of 7.2% followed by growth of 4.4% in EMEA and 1.2% in the Americas.

Global real demand for stainless steel products reached 38.5 million tonnes in 2016, an increase of 2.9% from 37.4 million tonnes in 2015. Overall demand growth recovered from a very low level in 2015 but still stood behind the average annual demand growth of about 8% in 2011–2014. Acceleration of the growth was most pronounced in the APAC region at 4.1%, driven by China

returning to robust growth as a result of solid infrastructure and property sectors. Meanwhile, demand in EMEA grew by 1.4%, but decreased in the Americas by 3.2% in 2016.

ABC & Infrastructure and Consumer Goods & Medical outperformed other end-use segments in 2016, with real demand growing by 4.6% and 4.3%, respectively, compared to 2015. The Industrial & Heavy Industries segment was the weakest performer with demand declining by 3.8%. Real demand in Chemical, Petrochemical & Energy and Automotive & Heavy Transport segments grew at 2.0% and 1.2%, respectively.

EU cold rolled imports from third countries are expected to have reached a level of 23.9% of the total consumption in 2016, down from the average level of 24.6% in 2015. While imports from Taiwan and South Korea increased, imports from other main exporting countries, namely China, India and the US, decreased in 2016. (Source: EUROFER January 2017)

Average cold rolled imports into the US are expected to have reached a level of 23.3% of the total consumption in 2016, lower than the average of 26.6% in 2015. Chinese imports decreased significantly, while imports from almost all other main exporting countries increased compared to 2015. (Source: Foreign Trade Statistics January 2017)

Price development of alloying metals

The year started with nickel prices on a weak note that slumped to a 13-year low below USD 8,000/tonne in early February as a result of increasing fears over global economy and subdued demand amid oversupplied markets. However, prices continued to rise throughout the year due to improving sentiment, concerns over possible disruption to nickel ore supplies from the Philippines, as well as the strong stainless steel production in China. Prices hit the highest level of the year of USD 11,735/tonne in early November, before retreating to USD 10,000/tonne levels at the end of the year. The average price of the year of USD 9,600/tonne was 18.7% lower than the average of USD 11,808/tonne in 2015.

The European benchmark price for ferrochrome fell from USD 1.04/lb in the fourth quarter of 2015 to USD 0.92/lb in the first quarter of 2016 and further down to USD 0.82/lb in the second quarter, as a result of deflated production costs and soft demand. Subsequently, prices recovered to USD 0.98/lb in the third quarter and to USD 1.10/lb in the fourth quarter amid tightening markets. This was a result of slowdown in South African ferrochrome and chrome ore supply, as well as strong demand in China. The average ferrochrome price was

USD 0.96/lb in 2016, 10.6% below the 2015 average of USD 1.07/lb. For the first quarter of 2017, the benchmark price followed higher prices in China and soared further to USD 1.65/lb.

Business areas

Europe

For the year 2016, the CRU reported average market base price was relatively flat at EUR 1,063/tonne compared to EUR 1,056/tonne in 2015. The prices were under pressure during the first half of the year as the distributor demand was negatively impacted by low nickel prices. However, healthy end customer demand and higher nickel prices during the second half of the year resulted in an uptick in pricing.

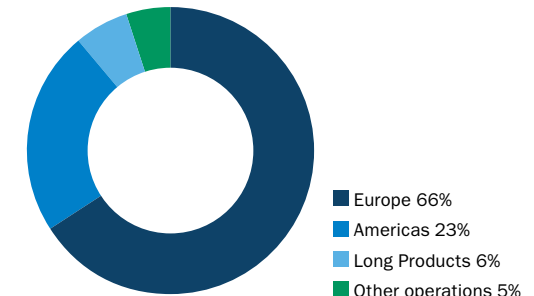
Europe's 2016 stainless steel deliveries increased by 3.0% to 1,625,000 tonnes compared to 1,578,000 tonnes in 2015. However, sales decreased to EUR 3,924 million (2015: EUR 4,316 million) due to lower base and metal prices. The average base price in business area Europe's coil product deliveries decreased by EUR 30/tonne compared to the previous year. Ferrochrome production amounted to 469,000 tonnes in 2016 (2015: 457,000 tonnes).

Europe's underlying EBIT increased to EUR 191 million in 2016 compared to EUR 85 million in 2015 driven by higher volumes and significantly decreased costs. The business area achieved its targets with its EMEA restructuring program and successfully decreased its SG&A costs. Furthermore, the variable costs per tonne were also clearly reduced. These more than offset lower base prices. Adjustments in 2016 amounted to EUR -27 million, mainly related to redundancy costs.

Americas

The 2016 stainless steel market was volatile in the US. The year started with low base prices and high import from China. In February, Outokumpu joined other US stainless steel producers and filed antidumping and countervailing duty petitions against Chinese importers. In September, the US Commerce Department set preliminary antidumping duties against imports from China. These measures resulted in significantly reduced import volumes from China particularly during the second half of the year, which, together with healthy underlying stainless steel demand, resulted in increased base prices towards the end of the year. However, the CRU reported average market base price for the year was clearly lower on average at USD 1,286/tonne compared to USD 1,349/tonne in 2015.

Sales, 5,690 € million



Business area Americas' stainless steel deliveries went up by 29.5% to 690,000 tonnes in 2016 compared to 533,000 tonnes in 2015 due to strong commercial development. The average base price² in the business area Americas' coil product deliveries decreased by USD 10/tonne in 2016 compared to the previous year. Sales increased to EUR 1,325 million (2015: EUR 1,214 million).

The business area's underlying EBIT amounted to EUR -91 million (2015: EUR -163 million). The improved financial performance was primarily a result of significantly higher deliveries and 25% reduction in variable costs per tonne. The positive impacts were partly offset by lower base prices. Adjustments in 2016 amounted to EUR 31 million.

Long Products

In 2016, the long products market was challenging. Prices were under pressure as import volumes remained at high levels in both Europe and the US. Furthermore, the Oil&Gas related investment activities remained subdued throughout the year.

Deliveries increased to 245,000 tonnes in 2016 (2015: 213,000 tonnes) driven by higher customer deliveries and increased internal slab deliveries. Despite higher deliveries, Long Products' underlying EBIT deteriorated to EUR -7 million (2015: EUR 7 million). The weakening performance was a result of lower long product prices, partly offset by cost reductions. The second-quarter derivative losses of approximately EUR 5 million impacted the business area's profitability but were offset by improved cost competitiveness as a result of weaker GBP during the second half of the year. Adjustments in 2016 amounted to EUR 18 million.

Financial performance

Deliveries

For 2016, stainless steel deliveries increased to 2,444,000 tonnes compared to 2,381,000 tonnes in 2015. The increase was mainly driven by significantly higher deliveries in the Americas. Deliveries in 2016 were higher also in Europe and Long Products compared to the previous year.

Deliveries

1,000 tonnes	2016	2015	2014
Cold rolled	1,731	1,767	1,880
White hot strip	425	346	373
Quarto plate	100	102	89
Long products	65	63	64
Semi-finished products	247	222	271
Stainless steel ¹⁾	121	95	138
Ferrochrome	126	128	133
Tubular products	1	9	9
Total deliveries	2,570	2,509	2,686
Stainless steel deliveries	2,444	2,381	2,554

¹⁾ Black hot rolled, slabs, billets and other stainless steel products.

2014 presented for continuing operations.

Sales and profitability

Sales amounted to EUR 5,690 million in 2016, 11.0% lower than EUR 6,384 million in 2015. The decrease was a result of lower base prices in both Europe and the US, partly offset by higher deliveries.

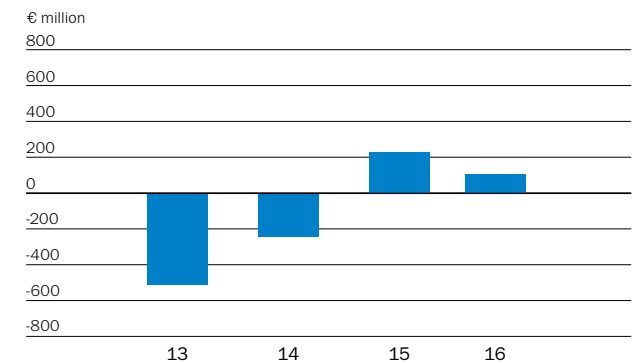
Sales

€ million	2016	2015	2014
Europe	3,924	4,316	4,685
Americas	1,325	1,214	1,290
Long Products	487	551	651
Other operations	571	979	1,037
Intra-group sales	-618	-676	-820
The Group	5,690	6,384	6,844

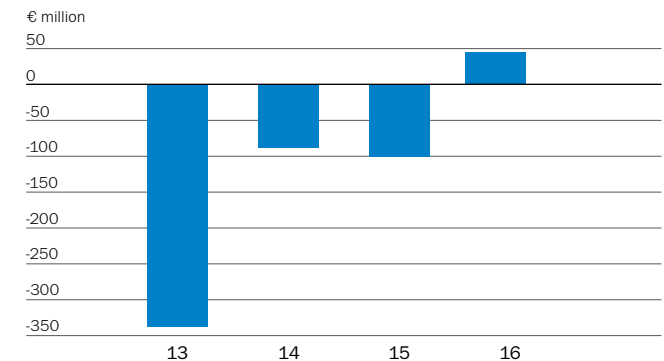
Other operations' figures for 2015 and 2014 include the divested SKS operations.

Outokumpu's profitability improved significantly in 2016 with positive underlying EBIT of EUR 45 million compared to EUR -101 million in 2015. This was driven by significant reduction in costs, as well as higher delivery volumes particularly in the Americas.

EBIT



Underlying EBIT



Profitability

€ million	2016	2015	2014
Underlying EBIT			
Europe	191	85	33
Americas	-91	-163	-91
Long Products	-7	7	32
Other operations and intra-group items ¹⁾	-48	-30	-61
Group underlying EBIT	45	-101	-88
Adjustments	58	330	-155
EBIT	103	228	-243
Share of results in associated companies and joint ventures	5	49	7
Financial income and expenses	-121	-149	-223
Result before taxes	-13	127	-459
Income taxes	156	-41	8
Net result for the financial year from continuing operations	144	86	-450
Net result for the financial year from discontinued operations	-	-	11
Net result for the financial year	144	86	-439
EBIT margin, %	1.8	3.6	-3.6
Return on capital employed, % ²⁾	2.6	5.3	-5.8
Earnings per share, EUR	0.35	0.23	-1.24
Earnings per share, continuing operations, EUR	-	-	-1.27
Earnings per share, discontinued operations, EUR	-	-	0.03
Net cash generated from operating activities ³⁾	389	-34	-126

¹⁾ Other operations' figures for 2015 and 2014 include the divested SKS operations.

²⁾ Key figure definition changed in 2016 and figure for 2015 has been restated. 2014 figure has not been restated.

³⁾ Year 2014 reported for continuing operations.

Income taxes for 2016 include deferred tax income of EUR 189 million related to previously unrecognized deferred tax assets from losses in Finland and Sweden in prior years. Impacted by the tax income, the net result for 2016 was EUR 144 million compared to EUR 86 million in 2015. Earnings per share was EUR 0.35 in 2016 (2015: EUR 0.23).

Additionally, Outokumpu has unutilized tax loss carry forwards of EUR 2,546 million, mainly in Germany and the US. Those can be recognized as deferred tax income when the company starts generating sufficient taxable income in these countries.

Cash flow

Outokumpu's operating cash flow was EUR 389 million in 2016, compared to EUR -34 million in 2015. The net working capital release during the year amounted to EUR 307 million (2015: EUR 223 million).

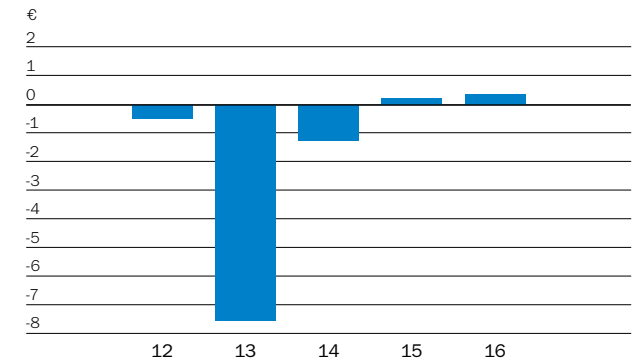
Financial position

Cash and cash equivalents were at EUR 204 million at the end of the year (2015: EUR 186 million), and the overall liquidity reserves were approximately EUR 1.0 billion (2015: EUR 1.1 billion). In addition, EUR 145 million of the revolving credit facility maturing in February 2017 was available, but as it is classified as short-term, it was not included in the reported liquidity. The overall liquidity reserves increased during the fourth quarter due to the reduction in working capital, the improvement in profitability and the increased use of commercial paper.

Net debt at the end of 2016 totaled EUR 1,242 million compared to EUR 1,610 million at the end of 2015. Gearing decreased to 51.4%, compared to 69.1% at the end of 2015, driven by lower net debt and increase in equity which was impacted by the deferred tax income.

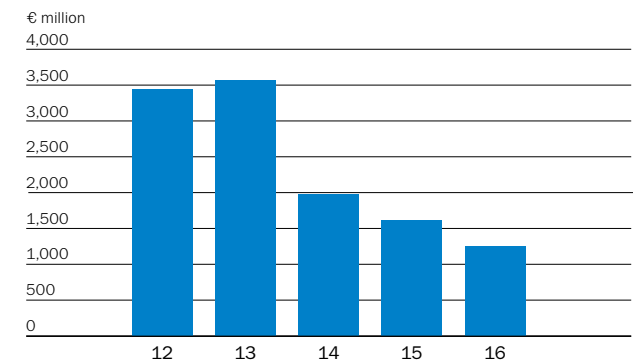
Net financial expenses added up to EUR 121 million in 2016 compared to EUR 149 million in 2015. Interest expenses decreased from EUR 130 million to EUR 105 million in 2016 as a result of the debt reduction.

Earnings per share



2014 and 2013 calculated based on the rights-issue-adjusted weighted average number of shares. 2012 has not been restated.

Net debt



Key financial indicators on financial position

€ million	2016	2015	2014
Net debt			
Non-current debt	987	1,249	1,597
Current debt	458	547	569
Cash and cash equivalents	-204	-186	-191
Net debt	1,242	1,610	1,974
Shareholders' equity	2,416	2,329	2,132
Return on equity, % ¹⁾	6.4	3.9	-21.8
Debt-to-equity ratio, %	51.4	69.1	92.6
Equity-to-assets ratio, %	40.4	39.6	33.3
Interest expenses	105	130	141

¹⁾ Key figure definition changed in 2016 and figure for 2015 has been restated. 2014 figure has not been restated.

Outokumpu is rated by Moody's Investors Service. In March 2016, Moody's assigned Outokumpu an issuer corporate family rating of B3 and a B3-PD probability default rating. In addition, Moody's has assigned a B2 rating to the EUR 250 million senior secured bond due in 2019 and a B2 rating to the EUR 250 million senior secured bond due in 2021. The outlook on the ratings is positive.

Capital expenditure

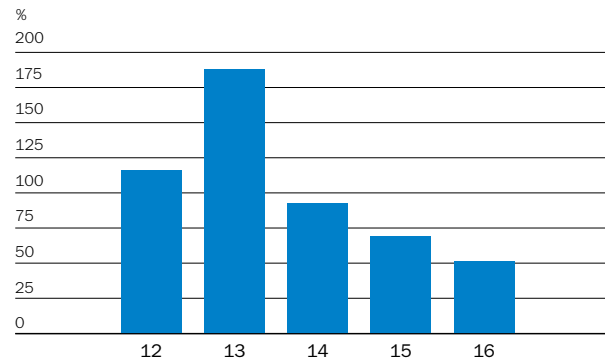
In 2016, capital expenditure was EUR 164 million, slightly higher than EUR 154 million in 2015.

Capital expenditure

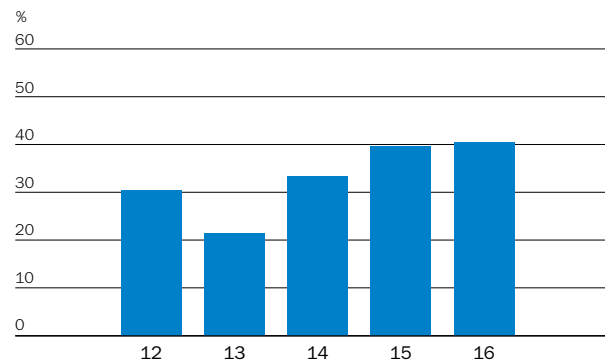
€ million	2016	2015	2014
Europe	101	96	83
Americas	17	19	15
Long Products	8	7	6
Other operations	37	32	22
The Group	164	154	127
Depreciation and amortization	226	302	320

2014 presented for continuing operations.

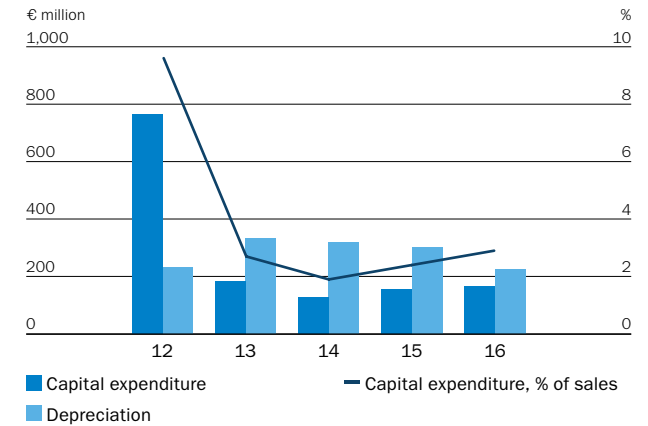
Debt-to-equity ratio



Equity-to-assets ratio



Capital expenditure and depreciation



Acquisitions and divestments

In February 2016, Outokumpu announced the divestment of its remaining 5% share in its Chinese subsidiary Shanghai Krupp Stainless which was recognized in the 2015 consolidated financial statements. In May Outokumpu agreed on the final terms and conditions of the transaction. The final transaction price for Outokumpu's 5% share rose to EUR 92 million, taking into account all adjustments. As a result, Outokumpu recognized additional gain of EUR 24 million net of taxes on the transaction into its 2016 result. In total, Outokumpu has recognized a gain of EUR 412 million net of taxes for the sale of its entire 60% share in SKS.

In April 2016, Outokumpu divested its subsidiary Outokumpu Stainless International (Guangzhou) Ltd., a service center in China. The gain on the transaction was EUR 6 million. The effect of the divestment on the Group's financial position was immaterial.

In September 2016, Outokumpu acquired Hernandez Edelmetall GmbH, a stainless steel distributor in Germany, to further optimize the Group's customer service in Europe. Prior to the acquisition, Outokumpu held 33.3% of the company's shares and it was accounted for as an associated company in the Group's consolidated financial statements. Asset acquired and liabilities assumed in the acquisition included non-current assets of EUR 15 million, current assets of EUR 21 million and current liabilities of EUR 45 million. The net amount of consideration and cash and cash equivalents acquired was EUR 9 million. The goodwill of EUR 19 million arising from the acquisition was immediately impaired. The impact of the goodwill impairment loss and other acquisition related expenditure on the Group's result was offset by the reversal of EUR 22 million of Outokumpu's credit loss allowances for Hernandez at the time of the acquisition.

Safety, people and environment

Safety

Outokumpu's safety focus continues to develop positively. From the beginning of 2016, the company follows total recordable incident frequency (TRIFR) as its main indicator for safety performance. TRIFR includes fatal accidents, lost time incidents, restrictive work incidents, and medically treated incidents. The TRIFR was 8.7 for the full year 2016 against the target of less than 12.0. In total, there were four serious incidents during 2016. All of these accidents were thoroughly investigated and corrective actions were defined.

People

Personnel

Dec 31	2016	2015	2014
Europe	7,428	7,778	8,415
Americas	2,219	2,265	2,259
Long Products	628	658	651
Other operations	325	301	800
The Group	10,600	11,002	12,125

Other operations' figure for 2014 includes the divested SKS operations.

Outokumpu's headcount decreased and totaled 10,600 at the end of 2016 (2015: 11,002 and 2014: 12,125) driven by the continued restructuring and efficiency measures. Overall, the number of employees decreased by 402 during 2016 with the majority of the headcount reduction realized in the European operations.

In April, Outokumpu announced efficiency measures that are expected to lead to the reduction of up to 600 jobs globally. In the second quarter, Outokumpu carried out related consultations with employee representatives in Finland and in Sweden, resulting in a reduction of approximately 180 jobs in these countries, and a further 150 jobs globally. In addition, Outokumpu concluded the negotiations in Germany in the third quarter resulting in a reduction of approximately 180 jobs. Approximately 90 jobs remain and are expected to be reduced during 2017. Redundancy costs of EUR 30 million have been booked related to efficiency measures and job reductions. 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 562 million in 2016 (2015: EUR 585 million, 2014: EUR 592 million). Indirect employee benefit expenses totaled EUR 151 million in 2016 (2015: EUR 177 million, 2014: EUR 262 million). The reduction in indirect employee benefit expenses primarily resulted from the changes to Outokumpu's defined benefit pension scheme in the UK in October 2016. The scheme was closed to future pension accruals and changes were made to the terms of retirement, which resulted in a EUR 26 million gain in 2016.

Environment

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. Outokumpu is not a party to any significant judicial 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.

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 will be sufficient for the Group's operations during 2017.

Shares and shareholders

During 2016, the price of the Outokumpu share peaked at EUR 8.51 and was EUR 2.08 at its lowest. The share price averaged EUR 4.51 during 2016. The Outokumpu share price closed at end of the year at EUR 8.51, marking an increase of 211% from the closing price of 2015. At the end of 2016, the company's market capitalization was EUR 3,541 million, compared to EUR 1,138 million at the previous year's end. In total, 956 million Outokumpu shares were traded on the Nasdaq Helsinki during 2016, representing a value of EUR 4,302 million.

Outokumpu's share capital was unchanged at EUR 311 million at the end of 2016. The total number of Outokumpu shares was 416,374,448 and the average number of shares outstanding in 2016 was 414,411,287.

Between May 17, 2016 and May 26, 2016, Outokumpu repurchased 2,000,000 its own shares through public trading at Nasdaq Helsinki intending to use them for the reward under the share-based payment plans. As of December 31, 2016, Outokumpu held 2,513,848 of its own shares, i.e. treasury shares.

Management shareholdings and share based incentive programs

On December 31, 2016, the members of the Board of Directors and the members of the Outokumpu Leadership Team held altogether 1,564,043 shares, or 0.4% of the total shares outstanding.

Outokumpu has established share-based incentive programs for the Leadership Team members and for selected managers and key employees. Outokumpu's share based payment programs include Performance Share Plan 2012, Restricted Share Pool and Matching Share Plans for the CEO and other key management.

According to the Matching Share Plan, the CEO is 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 2016 tranche of 185,077 shares (net after deduction of taxes) has been delivered. 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.

Besides the CEO, 32 other key employees are taking part in the Matching Share Plan, according to which the participants have 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 acquire until the vesting of the each matching share tranche.

More details on the share-based incentive programs can be found in note 18 to the financial statements and in Remuneration in the Corporate Governance section.

Research and development

Outokumpu's research & development (R&D) involves process, product, application and technical market development. R&D works closely together with the customers to align the company's activities with their current and future needs. Outokumpu's R&D operations are concentrated in three research centers, located at Avesta in Sweden, at Krefeld in Germany and at Tornio in Finland. Each R&D center has its role and focus areas, which were further sharpened in 2016. R&D teams work closely together with our sales and operations. In addition to the R&D centers, R&D activities also take place at the production sites.

In 2016, Outokumpu's R&D expenditure totaled EUR 20 million, 0.4% of sales (2015: EUR 23 million and 0.4%, 2014: EUR 23 million and 0.3%).

During 2016, process development teams continued to focus on transferring technological knowledge between R&D and production units. A job rotation program and networking of technical experts was continued. Process development activities further delivered on the overall goal to ensure cost and environmental efficiency of Outokumpu's production processes and high product quality. Product development activities focused on commercialization of several recently launched steel grades, involving, for instance, application development together with customers and standardization activities. Within the technical market development activities, several successful cases have been accomplished in close cooperation between Outokumpu sales team and the customers.

Risks and uncertainties

Outokumpu operates in accordance with the risk management policy approved by the Board of Directors which defines the objectives, approaches and areas of responsibility in risk management activities. In addition to supporting Outokumpu's strategy, the aim of risk management is to identify, evaluate and mitigate risks from the perspective of shareholders, customers, suppliers, personnel, creditors and other stakeholders.

Outokumpu has defined risks as anything that could have an adverse impact on achieving the Group's objectives. Risks can therefore be threats, uncertainties or lost opportunities for the company's current or future operations. The risk management process is an integral part of overall management processes, and it is divided into four stages: risk identification, risk evaluation, risk prioritization and risk mitigation. Key risks are assessed and updated on a regular basis.

The focus in risk management during 2016 was to secure business plan e.g. by securing liquidity, reducing costs and improving the efficiency and controls of Outokumpu's operations by establishing global business services centers. Outokumpu continued its systematic fire safety and loss prevention audit programs, which also focused on machinery breakdown loss prevention during the last year.

There were no realized material risks in 2016. In the first quarter of 2016, Outokumpu completed negotiations with its insurance companies regarding the settlement of the machinery breakdown and business interruption incident at its Calvert mill in the US in June, 2014. The issue of the new bond maturing in 2021 together with the maturity extension of Finnish pension loans during the second quarter, as well as strong cash flow clearly improved liquidity and helped to reduce the refinancing risk particularly for 2017.

Strategic and business risks

Outokumpu's key strategic and business risks currently include: risks and uncertainties in implementing the announced vision, including measures to drive competitiveness and further improve the financial performance; risks and uncertainties related to developments in the stainless steel and ferrochrome market and competitor actions; the risk of changes in raw material and metal prices impacting Outokumpu's profitability and amounts of cash tied up in working capital; fluctuations of exchange rates affecting global competitive environment in stainless; and the risk of litigation or adverse political action affecting trade or changes that have an impact on environmental legislation.

Operational risks

Operational risks include inadequate or failed internal processes, employee actions, systems, or events such as natural catastrophes and misconduct or crime. Risks of these types 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, environmental accidents; IT dependency and cyber security risks; project implementation risks; risks related to compliance, crime and reputational harm; risk of fatalities or severe incidents and other personnel-related risks. To minimize 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 and security audit programs in place.

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; changes in levels of credit margins; counterparty risk related to customers and other business partners, including financial institutions; risks related to liquidity and refinancing; risk of breaching financial covenants or other loan conditions leading to an event of default; and risk related to 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 drive competitiveness and further improve the financial performance; risks and uncertainties related to market development in stainless steel and ferrochrome as well as competitor actions; risk of changes in metal prices impacting amounts of cash tied up in working capital; risks and uncertainties in implementing the new organizational structure, and the loss of key personnel; changes in the prices of electrical power, fuels, nickel and molybdenum; currency developments affecting the euro, US dollar, Swedish krona and British pound; counterparty risk related to customers and other business partners, including 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 have since 2013 had 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.

Cartel fine imposed by the European Commission

In March 2011, the European Court of Justice upheld a EUR 3.2 million cartel fine imposed on ThyssenKrupp Stainless AG, a legal predecessor of Outokumpu Nirosta GmbH ("Nirosta"), in a decision of the European Commission from December 2006 (the "2006 Decision"). The 2006 Decision is based on a

1998 European Commission finding (the "1998 Finding") that between 1993 and 1998, certain stainless steel producers, including Inoxum and certain of its legal predecessors, had violated Article 65 (1) of the European Coal and Steel Community Treaty by participating in a price-fixing arrangement with other stainless steel producers. The alleged price-fixing arrangement consisted of modifying and applying in a concerted fashion the reference values used to calculate the alloy surcharge to the base price of stainless steel. The 1998 Finding was appealed and subsequently annulled on procedural grounds with respect to Nirosta's liability for one of its legal predecessors. Subsequent to this annulment, the European Commission opened new proceedings, which resulted in the 2006 Decision. Nirosta's appeals of the 2006 Decision were unsuccessful. In April 2011, Nirosta filed a complaint (Verfassungsbeschwerde) with the German Constitutional Court (Bundesverfassungsgericht) requesting that the Court declare the 2006 Decision incompatible with certain fundamental rights under the German Constitution (Grundgesetz). The German Constitutional Court decided on July 19, 2016 not to accept the complaint. Outokumpu has decided not to pursue the matter further.

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 has 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 instalments 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.

Corporate Governance

Outokumpu's Corporate Governance statement can be found on the Outokumpu [website](#) and in Outokumpu Annual report 2016.

Outokumpu Leadership Team

The new organizational set-up connected to Outokumpu's vision and strategy came into force on June 1, 2016, and as of that date the Outokumpu Leadership Team comprises the following persons:

- Roeland Baan, President and CEO & head of business area Europe
- Christoph de la Camp, CFO (as of July 1, 2016)
- Michael S. Williams, head of business area Americas
- Kari Tuutti, head of business area Long Products
- Olli-Matti Saksi, head of Sales Europe
- Liam Bates, head of Supply Chain Europe
- Maciej Gwozdz, head of Operations Europe (as of October 1, 2016)
- Pekka Erkkilä, Chief Technology Officer
- Jan Hofmann, Business Transformation & IT
- Johann Steiner, Human Resources & Organizational Development
- Saara Tahvanainen, Communications & Investor Relations

Annual General Meeting

Outokumpu held its Annual General Meeting on April 6, 2016. The Meeting approved the financial statements and discharged the management of the company from liability for the financial year 2015. It was also decided that no dividend be paid for 2015. The Meeting approved the proposals regarding the authorization to the Board of Directors to repurchase the company's own shares and to decide on the issuance of shares as well as special rights entitling to shares. The Meeting also approved the proposals of the Nomination Board regarding the members of the Board of Directors and their remuneration.

The Annual General Meeting decided that the number of the members of Board of Directors is nine. The Annual General Meeting decided to re-elect Markus Akermann, Roberto Gualdoni, Stig Gustavson, Heikki Malinen, Salla Miettinen-Lähde, Elisabeth Nilsson, Jorma Ollila and Olli Vaartimo of the current members and to elect Kati ter Horst 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.

Shareholders' 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, 2016, the four largest shareholders of Outokumpu were Solidium Oy, Varma Mutual Pension Insurance Company, Ilmarinen Mutual Pension Insurance Company and The Social Insurance Institution of Finland. They have appointed the following representatives to the Nomination Board:

- Kari Järvinen, Managing Director at Solidium Oy
- Pekka Pajamo, CFO at Varma Mutual Pension Insurance Company
- Timo Ritakallio, President and CEO at Ilmarinen Mutual Pension Insurance Company
- Tuula Korhonen, Investment Director at The Social Insurance Institution of Finland

The Nomination Board proposes for the 2017 Annual General Meeting that the Board of Directors would consist of eight members and Markus Akermann, Roberto Gualdoni, Kati ter Horst, Heikki Malinen, Salla Miettinen-Lähde, Jorma Ollila and Olli Vaartimo would be re-elected, and Eeva Sipilä would be elected as new member for the term of office ending at the end of the next Annual General Meeting. Jorma Ollila would be re-elected as the Chairman and Olli Vaartimo as the Vice Chairman of the Board of Directors.

Market and business outlook

Market outlook

Total global demand for 2017 is forecast at 40.1 million tonnes, an increase of 4.2% compared to 2016. Growth is expected to be strongest in the APAC region with 4.9%, whereas the Americas and the EMEA regions are expected to grow by 2.4% and 2.3%, respectively.

The long-term outlook for stainless steel demand remains positive. Key global megatrends such as urbanization, modernization, and increased mobility combined with growing global demand for energy, food, and water are expected to support the future growth of stainless steel demand. Growth in stainless steel consumption between 2017 and 2020 is expected to be relatively well-balanced between the end-use segments. SMR forecast growth rates of 5.3% in Architecture/ Building/Construction & Infrastructure, 5.1% in Automotive & Heavy Transport, 4.7% in Consumer Goods & Medical, 1.9% in Chemical/ Petrochemical & Energy and 0.4% in Industrial & Heavy Industries segments.

Business and financial outlook for the first quarter of 2017

In line with typical seasonality, the stainless steel market is expected to be strong in the first quarter with healthy underlying demand in both Europe and the US. Consequently, the first-quarter delivery volumes are expected to be higher in Europe, and significantly higher in the Americas compared to the fourth quarter of 2016. Furthermore, the cost-saving initiatives are expected to continue according to plans and contribute positively in the first quarter. In addition, the higher ferrochrome contract price will have a significant positive impact on business area Europe's profitability.

Therefore, Outokumpu's adjusted EBITDA is expected to be over EUR 250 million in the first quarter of 2017.

Given the achievements with debt reduction, Outokumpu updates its 2017 net debt target and expects the net debt to be below EUR 1.1 billion at the end of 2017.

Board of Directors' proposal for profit distribution

In accordance with the Board of Directors' established dividend policy, the pay-out ratio over a business cycle should be at least one third of the Group's profit for the period, with the aim of having stable annual payments to shareholders. In its annual dividend proposal, the Board of Directors will, in addition to financial results, take into consideration the Group's investment and development needs.

According to the parent company's financial statements on December 31, 2016 distributable funds totalled EUR 2,247 million, of which retained earnings were EUR 123 million.

The Board of Directors is proposing to the Annual General Meeting scheduled to be held on March 21, 2017 a dividend of EUR 0.10 per share is paid for 2016 and the remaining distributable funds are allocated to retained earnings.

Events after the reporting period

Divestment of quarto plate mill in the US

On January 25, 2017, Outokumpu announced the divestment of its quarto plate mill in New Castle, Indiana, US to D'Orazio Capital Partners, a US-based private equity company and to the mill's current management. The cash consideration of the transaction is expected to be approximately EUR 28 million, depending on the amount of the net working capital at the closing. The transaction reduces Outokumpu's net debt with the approximately same amount. Outokumpu does not consider the financial impact of the transaction to be material, and reports the transaction as an adjustment in the first-quarter 2017 results. In 2016 financial statements, the New Castle mill is presented as assets held for sale.

Change in reporting practices

On January 26, 2017, Outokumpu announced that it is changing its financial reporting practices as of the first quarter 2017 interim report onwards. Going forward, Outokumpu will consider EBITDA as its main performance indicator. Furthermore, Outokumpu replaces underlying figures with adjusted figures.

Helsinki, February 2, 2017
Board of Directors

This document is an English translation of the Finnish auditor's report. Only the Finnish version of the report is legally binding.

Auditor's report

To the Annual General Meeting of Outokumpu Oyj

Report on the Audit of the Financial Statements

Opinion

We have audited the financial statements of Outokumpu Oyj (business identity code 0215254-2) for the year ended 31 December, 2016. 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, as well as the parent company's balance sheet, income statement, statement of cash flows and notes.

In our opinion

- the consolidated financial statements give a true and fair view of the group's financial performance and financial position 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 financial statements in Finland and comply with statutory requirements.

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 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.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Materiality

The scope of our audit was influenced by our application of materiality. The materiality is determined based on our professional judgement and is used to determine the nature, timing and extent of our audit procedures and to evaluate the effect of identified misstatements on the financial statements as a whole. The level of materiality we set is based on our assessment of the magnitude of misstatements that, individually or in aggregate, could reasonably be expected to have influence on the economic decisions of the users of the financial statements. We have also taken into account misstatements and/or possible misstatements that in our opinion are material for qualitative reasons for the users of the 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.

We have also addressed the risk of management override of internal controls. This includes consideration of whether there was evidence of management bias that represented a risk of material misstatement due to fraud.

Valuation of inventories (EUR 1,232 million) – refer to Accounting principles and Note 21 in the consolidated financial statements

Key audit matter

- The most important commodity price risk for Outokumpu is caused by fluctuation in nickel and other alloy prices. Usually, stainless steel sales contracts include an alloy surcharge clause which aims to reduce the risk arising from the time difference between raw material purchase and product delivery. There is a pricing risk because the delivery cycle in production is longer than the alloy surcharge mechanism expects.
- The price for the products to be sold in the near future is known, however a significant part of the future prices for the products to be sold is based on management's best estimate in Net Realizable Value (NRV) calculations.
- The NRV calculations are the basis for inventory write downs. Management judgment is required to assess the recoverability of these assets.

Our response

- We have assessed through observation, interview and sample testing the adequacy of controls over metal processing and inventory.
- We have carried out testing on controls over inventory valuation to verify the Group values inventory appropriately. We have tested the appropriateness of overhead absorption in the inventory valuation by analyzing the nature of costs being absorbed and verifying the level of costs absorbed based on production data.
- We have assessed the provisions for inventory loss (NRV calculation) compared to current and estimated commodity prices. We have also assessed the adequacy of excess and obsolete provisions held against inventory by understanding management's future plans to utilize the inventory.
- We have observed part of physical stock takes to verify adherence to stock take procedures.

Valuation of Goodwill (EUR 467 million) – refer to Accounting principles and Note 11 in the consolidated financial statements

Key audit matter

- Goodwill amounts to 8% of the total assets and 19% of the total equity.
- Irrespective of whether there is any indication of impairment, goodwill acquired in a business combination is required to be tested for impairment annually. An impairment arises when the recoverable amount is less than the carrying value of the investment.
- The recoverable amount for each cash generating unit should be calculated based on value-in-use. The recoverable amounts use discounted future cash flow forecasts on which the management makes judgments over the key assumptions such as growth in net sales, profitability and discount rate. Due to the high level of management judgment, historical losses and the significant carrying amounts, this is one of the key areas for our audit focus.

Our response

- We have tested the principles and integrity of the Group's discounted future cash flow models, and the accuracy of the calculation derived from each forecast model. We have also reviewed the assessment of key assumptions in the calculations such as profitability level, discount rate and long-term growth rate, with reference to the medium term strategic plans and forecasts approved by the Board and industry data.
- Our valuation specialists have considered the appropriateness of the discount rate and the long term growth rates compared to industry data.
- We have considered the adequacy of the Group's disclosures in respect of impairment testing, and whether disclosures in relation to the sensitivity of the outcome of the impairment assessment to changes in key assumptions properly reflects the risks inherent in the valuations.

Valuation of Property, Plant and Equipment (EUR 2,874 million) – refer to Accounting principles and Note 12 in the consolidated financial statements

Key audit matter

- Property, Plant and Equipment amount to 48% of the total assets and 119% of the total equity.
- Due to the historical operative losses there is a risk that the carrying value of the Property, Plant and Equipment may not be recoverable, and that possible impairment may not be accounted for or disclosed appropriately in the financial statements.
- The recoverable amounts use discounted future cash flow forecasts on which the management makes judgments over the key assumptions. Due to the high level of management judgment and the significant carrying amounts, this is one of the key areas for our audit focus.

Our response

- We have assessed the Group's method for determining carrying value of Property, Plant and Equipment and whether it appropriately reflected financial forecasts and the past experience of the Group. The method is similar to methods used for goodwill impairment tests.
- We have utilized our own valuation specialists when assessing the inputs and methodology in determining the discount rates, and judgmental areas that our audit is concentrated on.

Adequacy and valuation of provisions (EUR 133 million) – refer to Accounting principles and Note 26 in the consolidated financial statements

Key audit matter

- Provisions are a key area of focus for audits. All provisions are subject to management estimate and judgment.
- Risks relate to the continuous and accurate validation and valuation of recorded and unrecorded liabilities.

Our response

- We have discussed with management the rationale and basis for any provision.
- We have assessed the reasonableness and adequacy of material provisions. Where balances are subject to claims we have made further enquiries and reviewed internal legal counsel documentation.

Valuation of deferred tax assets (EUR 204 million) – refer to Accounting principles and Note 9 in the consolidated financial statements

Key audit matter

- The Group has recognized deferred tax assets of EUR 204 million. We focused on this area because the deferred tax assets primarily arise from historical losses and a key judgement is whether there is convincing evidence of the availability of sufficient future taxable profits against which those losses can be utilized.

Our response

- We have considered whether the combination of the group entities current profitability and the managements projections provide convincing evidence that sufficient taxable profits will be available to utilize unused tax losses.

Interests in group companies in the parent company's financial statements (EUR 4,037 million) – refer to Accounting principles of the parent company's financial statements and Note 9

Key audit matter

- The recoverable amounts for interests in group companies is tested as part of group impairment testing based on the discounted cash flow model. Due to the high level of judgment incorporated in respect of the future cash flows and the significant carrying amounts involved, this is considered one of the key areas that our audit is concentrated on.

Our response

- We have tested the principles and integrity of the Group's discounted future cash flow models, and the accuracy of the calculation derived from each forecast model. We have also reviewed the assessment of key assumptions in the calculations such as profitability level, discount rate and long-term growth rate, with reference to the medium term strategic plans approved by the Board and industry data.
- Our valuation specialists have considered the appropriateness of the discount rate and the long term growth rates compared to industry data.

Responsibilities of the Board of Directors and the President and CEO for the Financial Statements

The Board of Directors and the President and CEO 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 President and CEO 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 President and CEO are responsible for assessing the parent company's and the group's ability to continue as 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 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 on 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 aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of the 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 President and CEO'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 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

Other Information

The Board of Directors and the President and CEO are responsible for the other information. The other information comprises information included in the report of the Board of Directors and in the Annual Report, but does not include the financial statements and our auditor's report thereon. We 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 and 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 report of the Board of Directors, 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 opinions

We support the adoption of the financial statements. 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 2 February, 2017

KPMG OY AB

Virpi Halonen
Authorised Public Accountant, KHT

Consolidated financial statements, IFRS

Consolidated statement of income

€ million	Note	2016	2015
Sales	3	5,690	6,384
Cost of sales		-5,298	-6,273
Gross margin		392	111
Other operating income	6	88	472
Selling and marketing expenses		-90	-107
Administrative expenses		-221	-212
Research and development expenses		-20	-23
Other operating expenses	6	-46	-13
EBIT		103	228
Share of results in associated companies and joint ventures	13	5	49
Financial income and expenses	8		
Interest income		4	4
Interest expenses		-105	-130
Market price gains and losses		-6	3
Other financial income		6	2
Other financial expenses		-18	-29
Total financial income and expenses		-121	-149
Result before taxes		-13	127
Income taxes	9	156	-41
Net result for the financial year		144	86
Attributable to			
Equity holders of the Company		144	96
Non-controlling interests		-	-9
Earnings per share for result attributable to the equity holders of the Company (basic and diluted), €	10	0.35	0.23

Consolidated statement of comprehensive income

€ million	Note	2016	2015
Net result for the financial year		144	86
Other comprehensive income			
Items that may be reclassified subsequently to profit or loss:			
Exchange differences on translating foreign operations			
Change in exchange differences		-3	75
Reclassification adjustments from other comprehensive income to profit or loss		-2	-17
Available-for-sale financial assets	16		
Fair value changes during the financial year		5	-1
Reclassification adjustments from other comprehensive income to profit or loss		-5	-
Cash flow hedges	20		
Fair value changes during the financial year		-5	3
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		-63	3
Income tax relating to remeasurements	9	20	-7
Share of other comprehensive income in associated companies and joint ventures	13	0	-1
Other comprehensive income for the financial year, net of tax		-53	56
Total comprehensive income for the financial year		91	142
Attributable to			
Equity holders of the Company		91	150
Non-controlling interests		-	-8

Consolidated statement of financial position

€ million	Note	2016	2015
ASSETS			
Non-current assets			
Intangible assets	11	504	498
Property, plant and equipment	12	2,874	3,005
Investments in associated companies and joint ventures	13	67	63
Available-for-sale financial assets	16	53	40
Investments at fair value through profit or loss	17	1	1
Deferred tax assets	9	204	16
Defined benefit plan assets	25	45	35
Trade and other receivables	22	2	40
		3,750	3,698
Current assets			
Inventories	21	1,232	1,251
Investments at fair value through profit or loss	17	16	16
Derivative financial instruments	20	34	37
Trade and other receivables	22	687	686
Cash and cash equivalents	23	204	186
		2,173	2,177
Assets held for sale	5	67	-
TOTAL ASSETS		5,990	5,874

€ million	Note	2016	2015
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		4	11
Retained earnings		-716	-810
Total equity	24	2,416	2,329
Non-current liabilities			
Non-current debt	27	987	1,249
Derivative financial instruments	20	4	9
Deferred tax liabilities	9	22	16
Defined benefit and other long-term employee benefit obligations	25	356	369
Provisions	26	118	113
Trade and other payables	28	37	48
		1,525	1,805
Current liabilities			
Current debt	27	458	547
Derivative financial instruments	20	63	50
Provisions	26	15	23
Current tax liabilities	9	12	32
Trade and other payables	28	1,459	1,089
		2,007	1,741
Liabilities directly attributable to assets held for sale	5	43	-
TOTAL EQUITY AND LIABILITIES		5,990	5,874

Consolidated statement of cash flows

€ million	Note	2016	2015
Cash flow from operating activities			
Net result for the financial year		144	86
Adjustments for			
Taxes	9	-156	41
Depreciation and amortization	11, 12	226	302
Impairments	11, 12	26	2
Share of results in associated companies and joint ventures	13	-5	-49
Gain/loss on sale of intangible assets and property, plant and equipment	6	-2	-19
Gain/loss on sale of financial assets	8	-5	-0
Gain/loss on disposal of subsidiaries	4	-34	-409
Interest income	8	-2	-3
Interest expense	8	94	120
Exchange rate differences	8	-4	-8
Other non-cash adjustments		-4	-74
		134	-96
Change in working capital			
Change in trade and other receivables		-17	121
Change in inventories		39	318
Change in trade and other payables		285	-216
		307	223
Provisions, and defined benefit and other long-term employee benefit obligations paid		-94	-130
Interest received		1	4
Interest paid		-94	-111
Income taxes paid		-9	-11
Net cash from operating activities		389	-34

€ million	Note	2016	2015
Cash flow from investing activities			
Acquired businesses, net of cash	4	-9	-
Investments in associated companies and joint ventures	13	-	-7
Purchases of available-for-sale financial assets	16	-14	-15
Purchases of property, plant and equipment	12	-116	-120
Purchases of intangible assets	11	-25	-10
Proceeds from the disposal of subsidiaries, net of cash and tax	4	72	375
Proceeds from sale of property, plant and equipment	12	8	20
Proceeds from sale of intangible assets	11	-	4
Other investing cash flow		3	-8
Net cash from investing activities		-81	239
Cash flow before financing activities			
		308	205
Cash flow from financing activities			
Capital contribution by the non-controlling interest holder		-	41
Treasury share purchase	24	-7	-
Borrowings of non-current debt		369	316
Repayments of non-current debt		-656	-612
Change in current debt		-13	78
Repayments of finance lease liabilities		-28	-37
Other financing cash flow		45	0
Net cash from financing activities		-291	-213
Net change in cash and cash equivalents			
		17	-8
Cash and cash equivalents at the beginning of the financial year		186	191
Foreign exchange rate effect on cash and cash equivalents		1	2
Net change in cash and cash equivalents		17	-8
Cash and cash equivalents at the end of the financial year	23	204	186

Consolidated statement of changes in equity

€ million	Note	Share capital	Premium fund	Invested unrestricted equity reserve	Other reserves	Fair value reserves	Cumulative translation differences	Remeasurements of defined benefit plans	Treasury shares	Other retained earnings	Attributable to the equity holders of the Company	Non-controlling interests	Total equity
Equity on Jan 1, 2015		311	714	2,103	5	5	-49	-89	-23	-846	2,132	0	2,132
Net result for the financial year		-	-	-	-	-	-	-	-	96	96	-9	86
Other comprehensive income		-	-	-	-	1	57	-4	-	-1	55	1	56
Total comprehensive income for the financial year		-	-	-	-	1	57	-4	-	95	150	-8	142
Transactions with equity holders of the Company													
Contributions and distributions													
Convertible bond		-	-	-	-	-	-	-	-	45	45	-	45
Capital contribution by the non-controlling interest holder	24	-	-	-	-	-	-	-	-	-	-	41	41
Share-based payments	18	-	-	-	-	-	-	-	2	-0	1	-	1
Changes in ownership interests													
Disposal of non-controlling interest	4	-	-	-	-	-	-	-	-	-	-	-32	-32
Equity on Dec 31, 2015		311	714	2,103	5	6	8	-92	-21	-704	2,329	-	2,329
Net result for the financial year		-	-	-	-	-	-	-	-	144	144	-	144
Other comprehensive income		-	-	-	-	-4	-5	-43	-	0	-53	-	-53
Total comprehensive income for the financial year		-	-	-	-	-4	-5	-43	-	144	91	-	91
Transactions with equity holders of the Company													
Contributions and distributions													
Share-based payments	18	-	-	-	-	-	-	-	9	-7	3	-	3
Treasury share purchase	24	-	-	-	-	-	-	-	-7	-	-7	-	-7
Other		-	-	-	-2	-	-	-	-	2	-	-	-
Equity on Dec 31, 2016		311	714	2,103	2	1	3	-135	-19	-564	2,416	-	2,416

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

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

In its meeting on February 2, 2017 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 make a decision to amend the financial statements.

2. Accounting principles for the consolidated financial statements

Basis of preparation

The consolidated financial statements of Outokumpu 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, 2016. 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 2016 have been prepared on a going concern basis.

As from January 1, 2016 Outokumpu has applied the following amended standards.

- **Annual Improvements to IFRSs (2012–2014 Cycle):** Amendment to IAS 34 Interim financial reporting that impacted the disclosure of information in Outokumpu's interim reports.
- **Amendment to IAS 1 Presentation of Financial Statements: Disclosure Initiative.** The amendments clarify for example the guidance in relation to applying the materiality concept in regard with the consolidated financial statements. The amendments had a minor impact on presentation in Outokumpu's consolidated financial statements.

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, 2016).

- **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 plans to adopt IFRS 15 as of January 1, 2018, using the retrospective approach. Outokumpu has assessed its current accounting policies and based on the assessment expects that the adoption will have no material impact on the quantitative information or on the presentation in the consolidated financial statements.
- **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 new standard's impact will be dependent on the financial instruments that the Group holds and economic conditions at that time. Based on the current assessment, the new standard would impact the measurement of Group's available-for-sale financial assets and application of hedge accounting.

- **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 recognise 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 contacts 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.
- **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 will have an impact on the disclosures in Outokumpu's consolidated financial statements.
- **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 are not assessed to have an impact on Outokumpu's consolidated financial statements.
- **Amendments to IFRS 2 Share-based payments – Clarification 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 Group is currently assessing the impacts of the amendments.

Other new or amended standards and interpretations are not expected to have an impact on Outokumpu's consolidated financial statements when adopted.

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 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 11 and 12.

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 15.

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.

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 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. EBIT 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. EBIT is defined correspondingly in management reporting as 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.

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.

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. Following the review of useful lives of certain property, plant and equipment in 2015 their estimated useful lives were lengthened from October 1, 2015 onwards.

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 sale 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 sale 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 expense.

Impairment of property, plant and equipment and intangible assets

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

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

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

Leases

Group as a lessee

Lease agreements of property plant and equipment, in which the Group has substantially all the rewards and risks of ownership, are classified as finance leases. An asset acquired through finance lease is recognized as property, plant and equipment in the statement of financial position, within a group determined by the asset's characteristics, at the commencement of the lease term at the lower of fair value and the present value of minimum lease payments.

Respective lease liabilities less finance charges are included in debt. Each lease payment is allocated between the finance charge and the reduction of the outstanding liability. The finance charge is allocated to each period during the lease term so as 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.

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 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. 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

In Outokumpu Group, 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.

Adjustments to EBIT

Adjustments to EBIT presented in the notes to the consolidated financial statements include items which affect the comparability between periods because of their unusual nature, size or incidence. Only material income and expenses resulting for example from group-wide restructuring programs, impairments, and gains or losses on sale of assets or businesses, as well as raw material related inventory and metal derivative gains and losses are included in adjustments.

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. Furthermore, 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. However, potential ordinary shares are only dilutive if the adjustments decrease the earnings per share ratio.

2015	Reconciliation						Group
	Europe	Americas	Long Products	Reportable segments total	Other operations ¹⁾	Eliminations	
€ million							
External sales	4,151	1,177	389	5,716	667	-	6,384
Inter-segment sales	165	37	162	365	311	-676	-
Sales	4,316	1,214	551	6,081	979	-676	6,384
EBITDA	286	-136	10	160	370	2	531
Depreciation and amortization	-196	-80	-8	-284	-18	-	-302
Impairments	-6	-	-	-6	5	-	-1
EBIT	84	-216	2	-131	358	2	228
Share of results in associated companies and joint ventures	-	-	-	-	-	-	49
Financial income	-	-	-	-	-	-	9
Financial expenses	-	-	-	-	-	-	-159
Result before taxes	-	-	-	-	-	-	127
Income taxes	-	-	-	-	-	-	-41
Net result for the financial year	-	-	-	-	-	-	86
Adjustments to EBIT							
Gain on the SKS divestment	-	-	-	-	409	-	409
Redundancy costs	-25	-	-	-25	-	-	-25
Net insurance compensation and costs related to technical issues in Calvert	-	-17	-	-17	-	-	-17
Impairments related to EMEA restructuring	-6	-	-	-6	-	-	-6
Net of raw material-related inventory and metal derivative gains/losses	31	-37	-5	-11	-	-20	-31
Assets in operating capital	3,683	1,496	210	5,389	316	-234	5,471
Other assets	-	-	-	-	-	-	388
Deferred tax assets	-	-	-	-	-	-	16
Total assets	-	-	-	-	-	-	5,874
Liabilities in operating capital	1,002	217	59	1,278	289	-229	1,338
Other liabilities	-	-	-	-	-	-	2,192
Deferred tax liabilities	-	-	-	-	-	-	16
Total liabilities	-	-	-	-	-	-	3,546
Operating capital	2,680	1,279	151	4,111	27	-6	4,133
Net deferred tax asset	-	-	-	-	-	-	0
Capital employed	-	-	-	-	-	-	4,133

¹⁾ Other operations' figures for 2015 include the divested SKS operations.

Geographical information

€ million	Finland	Germany	Sweden	The UK	Other Europe	North America	Asia and Oceania	Other countries	Inter-area	Group
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
2015										
Sales by destination	217	1,437	148	572	1,753	1,337	795	125	-	6,384
Sales by origin	3,088	1,367	1,326	515	460	1,343	407	60	-2,182	6,384
Non-current assets	1,604	324	311	71	120	1,047	22	3	-	3,503

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

Year 2016

In September, Outokumpu acquired Hernandez Edelstahl GmbH, a stainless steel distributor in Germany, to further optimize Outokumpu's customer service in Europe. Prior to the acquisition, Outokumpu held 33.3% of the company's shares and it was accounted for as an associated company in the Group's consolidated financial statements. Assets acquired and liabilities assumed in the acquisition included non-current assets of EUR 15 million, current assets of EUR 21 million and current liabilities of EUR 45 million. The consideration paid net of cash and cash equivalents acquired was EUR 9 million. The goodwill of EUR 19 million arising from the acquisition was immediately impaired. The impact of the goodwill impairment loss and other acquisition related expenditure on the Group's profit and loss was offset by the reversal of EUR 22 million of Outokumpu's credit loss allowances for Hernandez at the time of the acquisition.

Year 2015

Outokumpu made no acquisitions during 2015.

Divestments

Year 2016

In 2016, Outokumpu agreed on the final terms and conditions of the Shanghai Krupp Stainless Co., Ltd. (SKS) transaction recognized in 2015. The final transaction price for Outokumpu's 5% share rose to EUR 92 million, taking into account all adjustments. As a result, Outokumpu recognized additional gain of EUR 24 million net of withholding taxes on the divestment in 2016, EUR 28 million of which is recognized in other operating income and EUR -5 million in income taxes in the consolidated statement of income. Consideration receivable amounted to EUR 35 million on December 31, 2016.

In April 2016, Outokumpu divested its subsidiary Outokumpu Stainless International (Guangzhou) Ltd., a service center in China. The gain on the transaction recognized in other operating income was EUR 6 million. The effect of the divestment on the Group's financial position was immaterial.

Year 2015

In December 2015 Outokumpu divested its shares in Shanghai Krupp Stainless Co., Ltd. (SKS) in China. The gain on the transaction net of withholding taxes was EUR 389 million, including EUR 8 million transaction costs and EUR 5 million cumulative foreign exchange gains reclassified from equity to profit or loss. The gain is presented in other operating income (EUR 409 million) and income taxes (EUR -20 million) in the consolidated statement of income.

Effect of the SKS disposal on the financial position of the Group

€ million	2015
Non-current assets	156
Current assets	52
Non-controlling interest	-32
Non-current liabilities	-18
Current liabilities	-137
	21
Consideration received in cash	358
Withholding taxes	-20
Cash and cash equivalents of the company disposed of	-15
Net cash inflow	323
Receivable	75

In December 2015 Outokumpu divested its share in joint venture Fischer Mexicana. The divestment was carried out by selling the shares in the subsidiary Outokumpu Participations Mexico S.A. de C.V. through which the share in Fischer Mexicana was owned. The consideration received in cash was EUR 57 million. The gain on the sale net of taxes was EUR 43 million, including EUR 1 million transaction costs and EUR 12 million of cumulative foreign exchange gains reclassified from equity to profit or loss. The gain is presented in share of results in associated companies and joint ventures (EUR 49 million) and income taxes (EUR -6 million) in the consolidated statement of income. In the consolidated statement of financial position the divestment mainly affected the item investments in associated companies and joint ventures, which decreased by EUR 18 million. Cash and cash equivalents of the divested subsidiary were EUR 0 million.

5. 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 is presented as a disposal group held for sale in Outokumpu's 2016 consolidated financial statements. The main items presented under assets held for sale comprise PPE 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 comprise defined benefit obligation of EUR 38 million. The divestment of the subsidiary took place in January 2017.

6. Income and expenses

Cost of sales

The EUR 400 million baseline for the EUR 100 million reduction target in sales, general and administrative costs includes EUR 58 million of costs that were reported as cost of sales in 2015. The corresponding costs for 2016 were reported as selling and marketing as well as administrative costs.

Depreciation and amortization by function

€ million	2016	2015
Cost of sales	-214	-288
Selling and marketing expenses	-1	-1
Administrative expenses	-11	-12
Research and development expenses	-0	-1
	-226	-302

Other operating income

€ million	2016	2015
Exchange gains and losses from foreign exchange derivatives	-	9
Market price gains and losses from commodity derivatives	-	22
Market price gains and losses from derivative financial instruments	-	31
Gains from disposal of subsidiaries	34	409
Gains on sale of intangible assets and property, plant and equipment	4	20
Insurance compensation	37	1
Other income items	13	11
	88	472

Other operating expenses

€ million	2016	2015
Exchange gains and losses from foreign exchange derivatives	-13	-
Market price gains and losses from commodity derivatives	-10	-
Market price gains and losses from derivative financial instruments	-22	-
Impairments	-26	-1
Losses on sale of intangible assets and property, plant and equipment	-2	-1
Other expense items	4	-11
	-46	-13

Adjustments to EBIT

€ million	2016	2015
Redundancy costs	-30	-25
Gain on the SKS divestment	28	409
Changes to the UK pension scheme	26	-
Net insurance compensation and costs related to technical issues in Calvert	24	-17
Restructuring costs, other than redundancy	-8	-
Gain on the Guangzhou divestment	6	-
Impairments related to EMEA restructuring	-	-6
Net of raw material-related inventory and metal derivative gain/losses	11	-31
	58	330

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 2015, EUR 25 million of redundancy costs and EUR 6 million of impairments were recognized relating to the EMEA restructuring plan mainly in Germany and Sweden. In addition EUR 8 million restructuring costs were recognized in 2016 relating to earlier site closures.

In 2016, EUR 28 million additional gain was recognized relating to the divestment of Shanghai Krupp Stainless Co., Ltd. in China (SKS) in December 2015. Outokumpu also divested its Guangzhou service center in 2016 from which EUR 6 million gain was recognized. See note 4.

In October 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. In 2015 costs of EUR 17 million were recognized due to interruption and transfer of production to Group's other mills as well as repair and maintenance costs.

Net effect of raw material-related inventory and metal derivative gains/losses was EUR 11 million in 2016 (2015: EUR -31 million).

Auditor fees

KPMG

€ million	2016	2015
Audit	-1.9	-2.0
Tax advisory and other services	-0.1	-0.2
	-1.9	-2.1

7. Employee benefit expenses

€ million	2016	2015
Wages and salaries	-562	-585
Termination benefits	-28	-21
Social security costs	-68	-72
Post-employment and other long-term employee benefits		
Defined benefit plans ¹⁾	17	-12
Defined contribution plans	-49	-55
Other long-term employee benefits	-2	-2
Expenses from share-based payments	-9	-1
Other personnel expenses	-14	-15
	-713	-762

¹⁾ Includes curtailment of EUR 26 million due to the closure of the defined benefit pension scheme in the UK. See note 25.

Profit-sharing bonuses based on the Finnish Personnel Funds Act were not recognized in 2016 nor 2015.

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

8. Financial income and expenses

€ million	2016	2015
Interest income	4	4
Gains on the sale of available-for-sale financial assets	5	0
Other financial income items	0	2
Other financial income	6	2
Interest expenses		
Debt at amortized cost	-71	-92
Factoring expenses	-8	-6
Finance lease arrangements	-15	-14
Derivatives	-4	-9
Interest expense on defined benefit obligations and other long-term employee benefits	-8	-9
Interest expenses	-105	-130
Capitalized interests	3	2
Fees related to committed credit facilities	-18	-21
Other fees	-4	-9
Other financial expenses	-18	-29
Exchange gains and losses		
Derivatives	-13	-92
Cash, loans and receivables	6	86
Other market price gains and losses		
Derivatives	1	6
Other	-1	3
Market price gains and losses	-6	3
Total financial income and expenses	-121	-149

Exchange gains and losses in the consolidated statement of income

€ million	2016	2015
In sales	10	13
In purchases ¹⁾	-15	-35
In other income and expenses ¹⁾	-12	8
In financial income and expenses ¹⁾	-7	-6
	-23	-21

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

Exchange gains and losses include EUR 24 million net exchange loss on derivative financial instruments (2015: EUR 84 million net exchange loss) of which EUR 12 million loss on derivatives has been recognized in other operating expenses and EUR 13 million loss in financial items.

9. Income taxes

Income taxes in the consolidated statement of income

€ million	2016	2015
Current taxes	-12	-35
Deferred taxes	168	-6
	156	-41

The applicable Finnish corporate tax rate for the financial years 2016 and 2015 was 20.0%. The applicable tax rates for companies outside Finland range from 0.0% to 38.4% (2015: 0.0% to 38.8%).

Aggregate deferred taxes recognized in equity through other comprehensive income

€ million	2016	2015
Fair value reserves	-1	-2
Net investment hedging	-4	-4
Remeasurements of the net defined benefit liability	23	2
	18	-4

As of December 31, 2016 tax loss carry forwards amount to EUR 3,790 million (2015: EUR 3,573 million), in particular EUR 896 million (2015: EUR 906 million) in Finland, EUR 391 million (2015: EUR 421 million) in Sweden, EUR 1,646 million (2015: EUR 1,404 million) in the US and EUR 521 million (2015: EUR 485 million) in Germany. Deferred tax assets are recognized only to the extent that the realization of such tax benefits is probable. In determining the related valuation allowance, all positive and negative factors, including prospective results, are taken into consideration in estimating 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, 2016 tax loss carry forwards of the Outokumpu Group for which no deferred tax asset is recognized amount to EUR 2,546 million (2015: EUR 3,190 million). In 2016, due to the probable future tax benefits in Finland and Sweden deferred tax assets of EUR 189 million on existing tax loss carry forwards were recognized, which were not recognized in

previous years. Earnings before taxes turning positive in these countries impacted the recognition decision. No deferred tax liabilities were recorded on undistributed profits on foreign subsidiaries, as such profits are not to be distributed in the foreseeable future.

Tax losses carried forward

€ million	2016	2015
Expire in less than 5 years	176	188
Expire between 5 and 9 years	692	616
Expire later than 9 years	1,641	1,489
Never expire	1,281	1,280
	3,790	3,573

Deferred income taxes in the statement of financial position

€ million	2016	2015
Deferred tax assets	204	16
Deferred tax liabilities	-22	-16
Net deferred tax asset	181	0

Significant components of the deferred tax assets and liabilities are as follows:

€ million	2016			2015		
	Deferred tax assets	Deferred tax liabilities	Net	Deferred tax assets	Deferred tax liabilities	Net
Intangible assets	8	-3	6	11	-2	8
Property, plant and equipment	24	-209	-186	32	-173	-142
Other financial assets	33	-2	32	31	-1	30
Inventories	14	-8	5	17	-8	9
Derivative financial assets	5	-9	-5	5	-9	-4
Trade and other receivables	2	-3	-1	4	-2	2
Non-current and current debt	70	-0	70	58	-0	57
Defined benefit and other long-term employee benefit obligations	50	-23	28	69	-22	47
Provisions	14	-19	-5	15	-18	-4
Derivative financial liabilities	7	-1	6	9	-0	8
Trade and other payables	19	-2	17	20	-3	17
Tax loss carry forwards	1,132	-	1,132	1,050	-	1,050
	1,379	-280	1,099	1,320	-240	1,080
Valuation allowance	-918	-	-918	-1,080	-	-1,080
Offset	-257	257	-	-224	224	-
	204	-22	181	16	-16	0

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.

Movement in deferred tax assets and liabilities during the financial year

€ million	Net deferred taxes Jan 1, 2016	Translation differences	Recognized in profit or loss	Recognized in other comprehensive income	Reclassification to assets held for sale	Net deferred taxes Dec 31, 2016
Intangible assets	8	0	-3	-	-	6
Property, plant and equipment	-142	-6	-46	-	8	-186
Other financial assets	30	-0	1	0	-	32
Inventories	9	0	-4	-	-0	5
Derivative financial assets	-4	0	-2	1	-	-5
Trade and other receivables	2	0	-3	-	-0	-1
Non-current and current debt	57	1	11	-	0	70
Defined benefit and other long-term employee benefit obligations	47	1	-24	20	-16	28
Provisions	-4	-0	-1	-	-	-5
Derivative financial liabilities	8	-0	-2	-	-	6
Trade and other payables	17	0	0	-	-0	17
Tax losses carried forward	1,050	12	70	-	0	1,132
	1,080	8	-2	21	-8	1,099
Valuation allowance	-1,080	-9	171	-	-	-918
	0	-1	168	21	-8	181

€ million	Net deferred taxes Jan 1, 2015	Translation differences	Recognized in profit or loss	Recognized in other comprehensive income	Net deferred taxes Dec 31, 2015
Intangible assets	2	0	6	-	8
Property, plant and equipment	-73	3	-72	-	-142
Other financial assets	-3	-0	33	0	30
Inventories	6	1	3	-	9
Derivative financial assets	-6	-0	3	-1	-4
Trade and other receivables	11	0	-9	-	2
Non-current and current debt	53	0	4	-	57
Defined benefit and other long-term employee benefit obligations	48	2	4	-7	47
Provisions	17	0	-21	-	-4
Derivative financial liabilities	11	0	-3	-	8
Trade and other payables	44	3	-31	-	17
Tax losses carried forward	853	48	151	-	1,050
	964	58	68	-7	1,080
Valuation allowance	-951	-57	-74	-	-1,080
	13	0	-6	-7	0

In 2016 the income tax benefit of EUR 156 million presented in the financial statements is EUR 154 million higher than the expected income tax benefit of EUR 3 million, which would result if the Finnish corporate tax rate of 20.0% was applied to the Group's result before taxes. For financial year 2015 the reported income tax expense of EUR 41 million was EUR 16 million higher than the expected income tax expense of EUR 25 million calculated with the Finnish corporate tax rate of 20.0%. The following table reconciles the expected income tax benefit to the income tax benefit or expense presented in the consolidated statement of income:

€ million	2016	2015
Hypothetical income taxes at Finnish tax rate on consolidated result before tax	3	-25
Difference between Finnish and foreign tax rates	10	18
Tax effect of non-deductible expenses and tax exempt income ¹⁾	-3	88
Tax effect of losses for which no deferred tax asset is recognized ²⁾	152	-116
Taxes for prior years	2	25
Other items ¹⁾	-8	-29
Income taxes in the consolidated statement of income	156	-41

¹⁾ In 2016 and 2015 the gain on the sale of shares in subsidiaries is fully or partly not taxable in the jurisdictions of the sellers, which resulted in a reconciliation effect of EUR 119 million in 2015. However, the gains are subject to withholding tax expense in the countries, in which the sales took place. Withholding taxes of EUR -5 million (2015: EUR -26 million) are included in Other items. See note 4.

²⁾ Includes EUR 189 million change due to deferred tax assets which were not recognized in previous years.

Tax audit in Outokumpu Oyj was concluded in November 2014 and did not result in proposed changes to the company's taxation. The Tax Recipients' Legal Service Unit appealed against the outcome of the tax audit. In January 2017 the case has been dropped as the Tax Recipients' Legal Service Unit has cancelled its claim for taxation adjustment.

10. Earnings per share

	2016	2015
Result attributable to the equity holders of the Company, € million	144	96
Weighted average number of shares, in thousands	414,411	415,474
Diluted average number of shares, in thousands ¹⁾	414,411	415,474
Earnings per share for result attributable to the equity holders of the Company (basic and diluted), € ¹⁾	0.35	0.23

¹⁾ 33,662 thousand potentially convertible shares were excluded from the diluted average number of shares because their effect would have been anti-dilutive. In 2015, the impact of these shares on the average number would have been 29,235 thousand shares.

11. Intangible assets

€ million	Goodwill	Other intangible assets ¹⁾	Total
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
Historical cost on Jan 1, 2015	474	299	774
Translation differences	1	9	10
Additions	-	4	4
Disposals	-	-6	-6
Disposed subsidiaries	-	-80	-80
Reclassifications ²⁾	-	1	1
Historical cost on Dec 31, 2015	475	229	704
Accumulated amortization and impairment on Jan 1, 2015	-7	-199	-206
Translation differences	-1	-3	-3
Disposals	-	6	6
Disposed subsidiaries	-	7	7
Amortization	-	-10	-10
Accumulated amortization and impairment on Dec 31, 2015	-8	-198	-206
Carrying value on Dec 31, 2015	467	30	498
Carrying value on Jan 1, 2015	467	100	567

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

²⁾ Construction work in progress related to intangible assets is presented in the corresponding item of property, plant and equipment. When the asset is taken into use, it is reclassified to the appropriate asset account.

Intangible assets mainly comprise acquired assets.

Impairment testing of goodwill

Goodwill acquired through business combinations has been allocated for impairment testing as follows:

€ million	2016	2015
Europe ¹⁾	458	458
Long Products	9	9
	467	467

¹⁾ Goodwill allocated in 2015 to APAC and Quarto Plate was reallocated to Europe in 2016 following the new organization structure.

Goodwill is tested on operating segment level. Operating segments are the Group's cash-generating units. Goodwill has been allocated to the operating segments mentioned above. During the year 2016, goodwill was reviewed for impairment 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 based on the plans approved by the management for 2017–2019 after which cash flows are projected for a period of 3 years, including terminal value based on conservative assumptions.

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. Goodwill of Europe presents 98% of the total goodwill of the Group and the pre-tax WACC used for Europe is 9.4% (2015: 9.6%).

In the terminal value, growth rate assumption of 0.5% (2015: 0.5%) is used which management believes 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, which are in line with expectations of general inflation. 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 2,404 million. Increase of 7.0 percentage point in after-tax WACC would cause the recoverable amount to equal the carrying amount. Also, 18% decrease in annual delivery volumes or 12% 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 2016 or 2015. However, an impairment loss of EUR 19 million was recognized immediately for goodwill that arose from the acquisition of Hernandez Edelstahl GmbH in 2016. See note 4.

Emission allowances

Outokumpu had seven active sites operating under EU's Emissions Trading Scheme (ETS) in 2016. These include the production plants in Tornio, Finland; Avesta, Degerfors and Nyby in Sweden; Sheffield in the UK; as well as Krefeld and Dillenburg in Germany.

The pre-verified carbon dioxide emissions under ETS were approximately 0.95 million tonnes in 2016 (2015: 1.02 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 years 2017 and 2018 is estimated to be some 1 million tonnes annually. Considering the Group's operations and the Group's current emission allowance position, the 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, 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	0	0	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
Historical cost on Jan 1, 2015	145	46	1,275	4,631	132	128	6,357
Translation differences	3	-	28	145	1	2	179
Additions	0	12	1	29	1	86	129
Disposals	-12	-	-17	-109	-5	-1	-145
Disposed subsidiaries	-	-	-19	-92	-	-0	-112
Reclassifications	-	8	0	32	3	-45	-3
Historical cost on Dec 31, 2015	136	66	1,269	4,635	131	170	6,407
Accumulated depreciation and impairment on Jan 1, 2015	-9	-12	-543	-2,565	-70	-20	-3,219
Translation differences	-0	-	-5	-41	-0	-0	-47
Disposals	3	-	17	108	5	-	132
Disposed subsidiaries	-	-	3	23	-	-	25
Reclassifications	-	-	-	2	-1	-0	0
Depreciation	-0	-3	-47	-237	-5	-0	-292
Impairments	-6	-	-	5	-	-	-1
Accumulated depreciation and impairment on Dec 31, 2015	-14	-15	-575	-2,705	-71	-21	-3,402
Carrying value on Dec 31, 2015	122	51	693	1,930	60	149	3,005
Carrying value on Jan 1, 2015	136	34	732	2,065	63	108	3,138

¹⁾ Advances paid and construction work in progress includes also intangible assets. When the asset is ready to be taken into use, it is reclassified to appropriate asset account either in property, plant and equipment or in intangible assets.

Borrowing costs amounting to EUR 3 million were capitalized on investment projects during the financial year (2015: EUR 2 million). Total interest capitalized on December 31, 2016 was EUR 29 million (Dec 31, 2015: EUR 33 million). Outokumpu determines separate capitalization rates for each quarter. The average rate used during 2016 was 4.3%.

Impairments

Property, plant and equipment of business areas Europe and Americas represent 62% and 34%, respectively, of the total property, plant and equipment. Impairment testing in general as well as Europe's results are described in note 11.

Regarding Americas, a pre-tax WACC of 9.2% (2015: 9.2%) and a terminal growth rate assumption of 1.0% (2015: 1.0%) are used. The estimated recoverable amount of Americas exceeds its carrying amount by approximately EUR 268 million. Increase of 1.5 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.

In 2016 or 2015 no impairment losses were recognized as a result of the impairment test performed to Group's cash-generating units. However, in 2016, impairment losses totaling EUR 8 million were recognized in Europe business area due to restructuring and asset obsolescence (2015: losses of EUR 6 million due to restructuring in Germany).

Assets leased by finance lease agreements

€ million	Machinery and equipment			Total
	Land	Buildings		
Historical cost	28	1	234	263
Accumulated depreciation	-1	-0	-98	-99
Carrying value on Dec 31, 2016	28	1	136	164
Historical cost	29	33	236	298
Accumulated depreciation	-1	-5	-87	-93
Carrying value on Dec 31, 2015	28	28	149	205

13. 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	2016	2015
Carrying value of investments in associated companies	51	48
Group's share of total comprehensive income	3	-4

Joint ventures

	Domicile	Ownership, %
Fagersta Stainless AB	Sweden	50

Summarized financial information on joint ventures

€ million	2016	2015
Carrying value of investments in joint ventures	16	14
Group's share of total comprehensive income, ¹⁾	2	3
Gain from disposal of Fisher Mexicana S.A. DE C.V.	-	49

¹⁾ In 2015, Group's share of total comprehensive income in 2015 includes the divested joint venture Fisher Mexicana S.A. DE C.V. until December 2015. See note 4.

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

€ million	Category in accordance with IAS 39	Measured at				Carrying amount on Dec 31, 2016	Fair value on Dec 31, 2016
		Amortized cost	Cost	Fair value recognized in other comprehensive income	Fair value recognized through profit or loss		
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
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

2015	Category in accordance with IAS 39	Measured at				Carrying amount on Dec 31, 2015	Fair value on Dec 31, 2015
		Amortized cost	Cost	Fair value recognized in other comprehensive income	Fair value recognized through profit or loss		
€ million							
Non-current financial assets							
Available-for-sale financial assets	a)	-	36	4	-	40	40
Investments at fair value through profit or loss	c)	-	-	-	1	1	1
Trade and other receivables	b)	40	-	-	-	40	40
Current financial assets							
Investments at fair value through profit or loss	c)	-	-	-	16	16	16
Trade and other receivables	b)	624	-	-	-	624	624
Cash and cash equivalents	b), c)	186	-	-	-	186	186
Hedge accounted derivatives	e)	-	-	5	-	5	5
Derivatives held for trading	d)	-	-	-	32	32	32
		849	36	9	49	944	944
Non-current financial liabilities							
Non-current debt	f)	1,249	-	-	-	1,249	1,245
Derivatives held for trading	d)	-	-	-	9	9	9
Current financial liabilities							
Current debt	f)	547	-	-	-	547	547
Trade and other payables	f)	957	-	-	-	957	957
Hedge accounted derivatives	e)	-	-	1	-	1	1
Derivatives held for trading	d)	-	-	-	49	49	49
		2,752	-	1	58	2,811	2,807

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

15. Fair value hierarchy of financial assets and liabilities

2016 € million	Carrying amount	Fair value			Total
		Level 1	Level 2	Level 3	
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
Derivatives	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					
Derivatives	67	-	67	-	67
Financial liabilities not measured at fair value					
Non-current debt	987	859	267	-	1,127
2015					
€ million	Carrying amount	Fair value			Total
		Level 1	Level 2	Level 3	
Financial assets measured at fair value					
Available-for-sale financial assets	5	0	3	1	5
Investments at fair value through profit or loss	16	16	-	1	16
Hedge accounted derivatives	5	-	5	-	5
Derivatives held for trading	33	-	33	-	33
	59	16	41	2	59
Financial assets not measured at fair value					
Non-current trade and other receivables	40	-	40	-	40
Financial liabilities measured at fair value					
Hedge accounted derivatives	1	-	1	-	1
Derivatives held for trading	58	-	58	-	58
	59	-	59	-	59
Financial liabilities not measured at fair value					
Non-current debt	1,249	465	780	-	1,245

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.

16. Available-for-sale financial assets

€ million	2016	2015
Carrying value on Jan 1	40	27
Additions	14	15
Fair value changes	5	-1
Gains and losses from disposals reclassified to profit or loss	-5	-
Carrying value on Dec 31	53	40

Fair value reserve in equity

€ million	2016	2015
Fair value	53	40
Cost	49	36
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 48 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 2016 Outokumpu invested further EUR 14 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. Unlisted equity securities at fair value include holdings in energy producing companies and other investments not listed in any stock exchange.

17. Investments at fair value through profit or loss

€ million	2016	2015
Carrying value on Jan 1	16	6
Additions	1	11
Other changes	-1	-1
Carrying value on Dec 31	17	16

The carrying value comprises mainly of investment by Group's captive insurance company Visenta Försäkrings AB in state bonds, covered bonds, and funds.

18. Share-based payment plans

During the year 2016 Outokumpu's share based payment programs included Performance Share Plan 2012 (2014–2016, 2015–2017, and 2016–2018), Restricted Share Pool Program (2014–2016, 2015–2017 and 2016–2018) and Matching Share Plans. 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 2013–2015 ended and based on the achievement of the targets the participants received 65.1% of the target number of shares of the plan as reward. After deductions for applicable taxes, altogether 178,789 shares were delivered to 84 persons. Regarding the Restricted Share Pool Program, plan 2013–2015, after deductions for applicable taxes in total 7,426 shares were delivered to two participants based on the conditions of the plan. Outokumpu used its treasury shares for the reward payments.

In December 2015, the Board of Directors approved the commencement of the new plan (plan 2016–2018) of the Performance Share Plan 2012 as of the beginning of 2016. The number of gross shares (taxes included) allocated from the plan was 2,651,650 (payout at maximum performance level). At the end of the reporting period 120 persons participated in the plan. The plan's earnings criteria are Outokumpu's profitability and the efficiency with which its capital is employed compared to a peer group as well as Outokumpu's gearing 2018.

In December 2015, the Board also approved the commencement of the new plan (plan 2016–2018) of Restricted Share Pool Program 2012 as of the beginning of 2016. 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. The maximum number of gross shares (taxes included) that could be allocated from the plan is 330,000. At the end of the reporting period 19 persons participated in the plan.

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 2016, the Board of Directors approved the delivery of the first 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 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 the each matching share tranche. The maximum number of gross matching shares is 2,184,702 including taxes and 32 persons participate in the plan.

In December 2016, the Board of Directors approved the commencement of plan 2017–2019 of the Performance Share Plan 2012 and the Restricted Share Pool 2012 as of the beginning of 2017.

The total estimated fair value of the share-based payment plans is EUR 31 million on December 31, 2016. 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	2016	2015
Equity-settled share-based payment transactions	-3	-1
Cash-settled share-based payment transactions	-6	-0
	-9	-1
Total carrying amount of liabilities for cash-settled arrangements on Dec 31	6	1

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

Performance Share Plan 2012			
Grant date	May 31, 2014	Feb 11, 2015	Feb 10, 2016
Vesting period	Jan 1, 2014–Dec 31, 2016	Jan 1, 2015–Dec 31, 2017	Jan 1, 2016–Dec 31, 2018
Vesting conditions			
Non-market	EBIT improvement for the year 2014; EBIT excluding non-recurring items for the year 2015; underlying EBITDA for the year 2016; a cash flow measure for the years 2014, 2015 and 2016; and return on capital employed (ROCE) in 2016	EBIT excluding non-recurring items and a cash flow measure for the year 2015; and return on capital employed (ROCE) ranking among peers and debt-to-equity ratio (gearing) in 2017	Outokumpu's profitability and the efficiency with which its capital is employed compared to a peer group, and Outokumpu's gearing in 2018
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 2012			
Grant date	May 31, 2014	April 30, 2015	Dec 9, 2016
Vesting period	Jan 1, 2014–Dec 31, 2016	Jan 1, 2015–Dec 31, 2017	Jan 1, 2016–Dec 31, 2018
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 tranche; 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 2014–2016	8.51
	Vesting period 2015–2017	8.51
	Vesting period 2016–2018	8.51
Restricted Share Pool Program		
	Vesting period 2014–2016	8.51
	Vesting period 2015–2017	8.51
	Vesting period 2016–2018	8.51
	Matching Share Plan for the CEO	8.51
	Matching Share Plan for management ¹⁾	8.51

¹⁾ Average fair value based on purchase dates

19. Financial risk management, capital management and insurances

The objectives of financial risk management are to reduce the impact of price fluctuations and other factors of uncertainty in financial markets on earnings, cash flows and capital structure, as well as to ensure adequate liquidity. 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 hazards.

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. In 2016 the Financial Risk Policy was reviewed and changes to it were approved by the CFO. Main changes to the policy were related to the new organization and to metal 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 is becoming more centralized and Treasury coordinates the management of credit risk. Energy & Gas function is responsible for managing electricity and fuel price risks.

Treasury sources substantial part of the Group's insurances. The most important insurance lines are property damage and business interruption, liability, marine cargo and credit. The Group's captive insurance company Visenta Försäkrings AB retains selected part of risk.

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. In risk quantification, both likelihood of an adverse event and the impact of that event are assessed. For market risk, the adverse scenario is based on a predefined price change in a risk factor, e.g. in exchange rate or metal price. Furthermore, the impact analysis is based on measured underlying exposure, e.g. the amount of forecasted currency cash flow. The likelihood of

the adverse scenario is based on market volatility of the underlying risk factor. Eventually, the impacts of key risks are quantified in terms of changes in net 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 and based on separate decisions. The derivatives, for which hedge accounting is not applied, have been made 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 highly cyclical, which often results in significant changes in the underlying exposures to different market risk factors. Consequently applying hedging policies in a consistent way may lead to big changes in the amounts of reported derivative 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.

Sensitivity of financial instruments to market risks

€ million	2016		2015	
	In profit or loss	In other comprehensive income	In profit or loss	In other comprehensive income
+/-10% change in EUR/USD exchange rate	+5/-4	-	-2/+3	-
+/-10% change in EUR/SEK exchange rate	-6/+8	-9/+11	-9/+11	-13/+15
+/-10% change in nickel price in USD	-2/+1	-	-1/+1	+0/0
+/-10% change in propane price in USD	-	-	+1/-1	-
+/-1% parallel shift in interest rates	-4/+4	-	-5/+1	-

The sensitivity analyses apply to financial instruments only. Other assets, liabilities and off-balance sheet items such as net pension liabilities, 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 29–37%. With +/- 30% change in dollar denominated price, the effect in profit or loss is about EUR -6/+4 million for nickel derivatives.

Foreign exchange rate risk

A major part of the Group's sales is in euros and US dollars. A significant part of expenses arise in euros, US dollars, Swedish kronas and British pounds. In Europe, Outokumpu's products are priced mainly in euros and therefore costs in Swedish krona and British pounds give rise to a significant foreign exchange risk impacting profitability and cash flows. Due to captive ferrochrome production and related revenues being linked to US dollar, the EUR/USD exchange rate risk for the Group is significant. Furthermore, stainless steel contribution margin is impacted by the value of US dollar.

Outokumpu hedges most of its fair value risk which relates to currency denominated accounts receivables, accounts payables, debt, cash, and loan receivables. Cash flow risk related to firm commitments is hedged to a large extent, whereas forecasted and probable cash flows can be hedged selectively and with separate decisions only. In 2016 Outokumpu hedged part of the H2-2016 forecasted cash flows related to its operations in The UK. The Group's fair value currency position is presented in a more detailed level in the table below.

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 and with separate decision only. In 2016 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 USD denominated internal loans. In 2016 USD 400 million equity was injected into Outokumpu Americas Inc. in order to reduce the amount of internal dollar denominated loans.

Foreign exchange positions of EUR-based companies

€ million	2016				2015			
	SEK	USD	GBP	Other	SEK	USD	GBP	Other
Trade receivables and payables	1	-178	12	6	4	-99	18	5
Loans and bank accounts ¹⁾	596	556	0	7	302	930	-8	9
Derivatives	-475	-409	-28	-10	-135	-798	-22	-12
Net position	122	-30	-15	3	170	34	-12	2

Foreign exchange positions of SEK-based companies

€ million	2016				2015			
	EUR	USD	GBP	Other	EUR	USD	GBP	Other
Trade receivables and payables	52	-13	-26	2	-2	5	-4	4
Loans and bank accounts ¹⁾	20	13	2	1	17	6	1	0
Derivatives	-159	-30	14	-10	-144	-25	-8	-15
Net position	-87	-31	-10	-7	-129	-14	-11	10

¹⁾ Includes cash and cash equivalents, loan receivables and debt

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. Interest rate swaps are used to manage Group's interest rate risk.

US dollar, euro and Swedish krona have substantial contribution to the overall interest rate risk. Approximately 34% (2015: 59%) 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, 2016 was 7.2% (Dec 31, 2015: 5.4%). 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.

Currency distribution and re-pricing of outstanding net debt

Dec 31, 2016					
€ million	Net debt ¹⁾	Derivatives ²⁾	Average rate, %	Duration, year	Rate sensitivity ³⁾
Currency					
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
Others	-71	-17	0.8	0.0	-0.9
	1,242	32			5.2

Dec 31, 2015					
€ million	Net debt ¹⁾	Derivatives ²⁾	Average rate, %	Duration, year	Rate sensitivity ³⁾
Currency					
EUR	1,385	-1,107	5.5	11.5	-4.8
SEK	283	294	4.1	0.3	4.3
USD	21	894	21.2	0.3	6.0
Others	-44	-78	2.7	0.2	-0.9
	1,646	3			4.5

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) The effect of one percentage point increase in interest rates to financial expenses over the following year

Changes in interest rates impact pension plan asset and liability values. The net liability of Group's pension plans is some EUR 300 million and therefore decrease in long-term interest rates would typically increase the net liability of the 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 volume and amount of discounts related to stainless scrap purchases have major impact on metal price risk. Since there is no established financial market for chrome, this metal risk is not treated as financial risk.

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 to

customer. 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 applied in 2016 the identified nickel price risk, excluding risk related to base stock, must be hedged. Nickel in base stock is hedged partially and in 2016 the hedging ratio has been at around 20 percent. Nickel price hedging has been done with dollar denominated derivatives, which are included in currency position. This means that e.g. in Finland nickel hedging is effectively done against euro. Risk related to stainless steel scrap purchase discounts is not hedged. Outokumpu has not done any hedges on molybdenum and iron prices mainly due to lack of liquid financial markets.

Nickel derivatives and LME warrants have been used to manage impacts of price changes on earnings. Metal prices have a major impact on working capital and therefore cash flow from operations. This risk has not been hedged with derivatives, however strict working capital management helps to reduce cash flow risk.

Outokumpu's main 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 centrally. Emission allowance price risk is managed with the aim of securing the cost of compliance for the current trading period and reducing the cost of compliance. In certain situations the market price of power is partly based on price of carbon dioxide emissions. This indirect exposure to emission prices can be significant for Outokumpu due to energy intensive processes using power, propane, natural gas and other oil products, e.g. marine diesel. Outokumpu manages energy price risk centrally. The Group hedges both propane and natural gas price risk by locking future purchase prices mainly with supply contracts. Power price risk is reduced with fixed price supply contracts and ownerships in power utilities.

Security price risk

Outokumpu has investments in equity and fixed income securities. On December 31, 2016 the biggest investments were in Voimaosakeyhtiö SF (equity investment EUR 48 million) and OSTP Holding Oy (equity investment of EUR 23 million). The captive insurance company Visenta Försäkrings AB has investments in highly rated and liquid fixed income securities as well as fixed income and equity funds.

Outokumpu has a well-funded pension plan in the UK. This plan has assets approximately EUR 500 million, 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 liability reported on this plan. For more information please see note 25.

Country and credit risk

All sales must be 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, 2016 the maximum exposure to credit risk of trade receivables was EUR 471 million (2015: EUR 442 million). A large part of trade receivables is covered by insurance or by secured payment terms, however there are also unsecured trade receivables based on separate decisions. The portion of unsecured receivables has varied between 13 to 17 percent 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 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. Investments related to liquidity management are made in short-term deposits and liquid financial instruments with low credit risk. 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. Efficient cash and liquidity management is also reducing liquidity risk. Finance plans are prepared and reviewed regularly with a particular focus on the Group's forecasted cash flows, projected funding requirements, planned funding transactions during the forecast period and financial covenant headroom. The amount and adequacy of liquidity reserves, the amounts of scheduled annual repayments of non-current debt as well as forecasted gearing and leverage levels are key targets and outcomes of the planning. In 2016 improved profitability and lower gearing allowed increased focus on cost of debt optimization. Decent profitability, reduction in net working capital, strict capex controls and certain asset disposals lead to a clear reduction in net debt.

In March Outokumpu Oyj received corporate family rating of B3 and B3-PD probability default rating from Moody's. The 2019 and 2021 secured notes were rated by Moody's at B2. All ratings have a positive outlook. In June Outokumpu issued the EUR 250 million 7.25% senior secured rated notes maturing on June 16, 2021.

The main funding programs and credit facilities are: a committed revolving facility of EUR 800 million, of which EUR 145 million matures in February 2017 and EUR 655 million in February 2019; two committed revolving bilateral credit facilities of EUR 120 million maturing in February 2019, and a Finnish commercial paper program totaling EUR 800 million. As at December 31, 2016 Outokumpu had a total amount of some EUR 920 million committed credit facilities, of which EUR 775 million is long-term. All committed credit facilities were unutilized at year-end. Outokumpu Oyj, certain subsidiaries and lenders of Outokumpu benefiting from the security package have signed an intercreditor agreement, which was created in February 2014. More information on liquidity and refinancing risk is presented in the following table.

Contractual cash flows

2016							
€ million	Balance Dec 31	2017	2018	2019	2020	2021	2022–
Bonds	496	-	-	250	-	250	-
Convertible bond	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	11	75	69	59	34	18	122
Interest rate derivatives	5	2	1	1	0	-	-
Other derivatives	28	28	-	-	-	-	-
		1,672	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 is a fully unutilized EUR 145 million committed credit facility maturing in the end of February 2017.

2015							
€ million	Balance Dec 31	2016	2017	2018	2019	2020	2021–
Bonds	398	150	-	-	250	-	-
Convertible bond	210	-	-	-	-	250	-
Loans from financial institutions	467	20	369	6	66	6	5
Pension loans	174	9	34	38	34	31	29
Finance lease liabilities	208	28	66	5	3	3	102
Commercial papers	339	339	-	-	-	-	-
Trade payables	830	830	-	-	-	-	-
Interest payments and facility charges	20	83	60	54	41	21	151
Interest rate derivatives	7	4	3	1	1	-	-
Other derivatives	15	12	3	-	-	-	-
		1,475	534	103	395	310	287

On December 31, 2015, the Group had cash and cash equivalent marketable securities amounting to EUR 186 million and committed and available credit facilities, available and undrawn TyEL pension loans in Finland, and other agreed and undrawn loans totaling EUR 928 million.

Capital management

The objective of capital management is 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 this objective, the 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 new 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 secure 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 tender offers of issued notes and use of call options. Revolving facilities include two financial covenants, which are based on gearing and liquidity. The notes maturing in 2019 and 2021 include incurrence based financial covenants on gearing. The 2019 notes covenant level for gearing is 140% on December 31, 2016 and 130% thereafter. The 2021 notes covenant level for gearing 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. In 2016 Outokumpu repatriated equity (EUR 170 million) by capital reduction in Belgium. Significant amount (USD 400 million) of equity was injected to Outokumpu Americas Inc.

Outokumpu's captive insurance company, Visenta Försäkrings AB, 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 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. Net debt is calculated as total current and non-current debt less cash and cash equivalents. In 2016 leverage ratio, which is calculated by dividing net debt by underlying EBITDA, has become an important measurement for capital structure.

On December 31, 2016, net debt was EUR 1,242 million (2015: EUR 1,610 million), total equity EUR 2,416 million (2015: EUR 2,329 million) and gearing 51.4% (2015: 69.1%). The decrease in gearing resulted primarily from reduction in net working capital and recognition of deferred tax assets.

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 (PDBI) insurance, covering e.g. fires, machinery breakdowns and natural catastrophes, is the most important insurance line and significant portion of insurance premiums paid relate 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.

During the reporting year there were no serious fires or machinery breakdown incidents. There was one PDBI insurance claim caused by severe weather conditions (lightning) in the Tornio region. In December a ship carrying Outokumpu's ferronickel sank in the Aegean sea. The value of Outokumpu's cargo (approximately EUR 6 million) is covered by insurance. There were no significant liability or credit insurance claims in 2016. Fire safety and machinery breakdown audits were carried out mainly as planned. The loss settlement for the machinery breakdown, which took place in June 2014 in Calvert, was settled with insurers in March at about USD 60 million less risk retention of about USD 13 million.

Visenta Försäkrings AB, 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 26 million (2015: EUR 28 million). Visenta underwrites PDBI insurance and it has issued a surety bond to support the AvestaPolarit pension scheme in the UK.

20. Fair values and nominal amounts of derivative instruments

€ million	2016			2015	2016	2015
	Positive fair value	Negative fair value	Net fair value	Net fair value	Nominal amounts	Nominal amounts
Currency and interest rate derivatives						
Currency forwards	27	52	-25	5	2,647	2,284
Interest rate swaps	0	5	-5	-7	777	578
					Tonnes	Tonnes
Metal derivatives						
Forward and futures nickel contracts	7	9	-2	-4	27,233	32,623
Forward and futures molybdenum contracts	-	-	-	-3	-	212
Nickel options, sold	-	1	-1	-	1,800	-
Emission allowance derivatives	-	-	-	-0	-	2,400,000
Propane derivatives	-	-	-	-12	-	61,500
					MMBtu	MMBtu
Natural gas derivatives	-	-	-	-1	-	705,000
Total derivatives	34	67	-33	-22		
Less long-term derivatives						
Interest rate swaps	-	4	-4	-6		
Forward and futures nickel contracts	-	-	-	-2		
Propane derivatives	-	-	-	-1		
Short-term derivatives	34	63	-29	-12		

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

Hedge accounted cash flow hedges

Outokumpu has hedged 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 2017 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	2016			2015		
	Nominal amount, SEK million	Fair value of outstanding cash flow hedges, € million	Equity, € million	Nominal amount, SEK million	Fair value of outstanding cash flow hedges, € million	Equity, € million
Maturity < 1 year	390	0	0	391	1	1
Maturity 1–5 years	770	0	-1	1,171	4	2
	1,161	0	-1	1,562	5	3

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	2016	2015
Derivative assets		
Gross amounts of recognized financial assets in the statement of financial position	34	38
Related financial instruments that are not offset	33	30
	1	8
Derivative liabilities		
Gross amounts of recognized financial liabilities in the statement of financial position	67	59
Related financial instruments that are not offset	33	30
	34	29

21. Inventories

€ million	2016	2015
Raw materials and consumables	376	340
Work in progress	508	476
Finished goods and merchandise	347	434
Advance payments	2	1
	1,232	1,251

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. Reversal of NRV write-downs amounting to EUR 26 million were recognized in income statement during the financial year (2015: write-downs amounting to EUR 21 million).

22. Trade and other receivables

€ million	2016	2015
Non-current		
Loans receivable	1	3
Other accruals and receivables	1	37
	2	40
Current		
Trade receivables	471	443
VAT receivable	36	52
Income tax receivable	25	29
Loans receivable	5	7
Prepaid insurance expenses	7	3
Other accruals	45	30
Other receivables	98	122
	687	686
Allowance for impairment of trade receivables		
Allowance on Jan 1	19	19
Additions	12	6
Deductions	-22	-4
Recovery of doubtful receivables	-3	-2
Allowance on Dec 31	6	19
Age analysis of trade receivables		
Neither impaired, nor past due	421	390
Past due 1–30 days	38	39
Past due 31–60 days	5	5
More than 60 days	6	9
	471	443

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. Financial risk management, capital management and insurances.

As of December 31, 2016 Outokumpu has derecognized trade receivables totaling EUR 387 million (2015: EUR 287 million), which represents fair value of the assets. Net proceeds received totaled EUR 364 million (2015: EUR 271 million). Underlying assets have maturity less than one year. The maximum amount of loss related to derecognized assets are estimated to be EUR 17 million (2015: 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.

EUR 12 million of receivables from associated companies were impaired during 2016 in addition to EUR 10 million that were included in the allowance for impairment of trade receivables on December 31, 2015. The total impairment was reversed in September 2016.

23. Cash and cash equivalents

€ million	2016	2015
Cash at bank and in hand	203	145
Short-term bank deposits ¹⁾	0	41
	204	186

¹⁾In 2015 including a short-term deposit EUR 30 million which has been pledged.

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 2016 was 0.2% (Dec 31, 2015: 1.3%).

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, 2015	415,427	311	714	2,103	3,127
Shares granted from the share-based payment programs ¹⁾	63	-	-	-	-
On Dec 31, 2015	415,489	311	714	2,103	3,127
Shares granted 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
Treasury shares ¹⁾	2,514				
Total number of shares on Dec 31, 2016	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, 2016 the distributable funds of the parent company totaled EUR 2,247 million of which retained earnings were EUR 123 million. The Board of Directors proposes to the Annual General Meeting in 2017 that a dividend of EUR 0.10 per share is paid for 2016 (no dividends paid for 2015).

Non-controlling interest

In December 2015 Outokumpu divested the subsidiary Shanghai Krupp Stainless Co., Ltd. (SKS) incorporated in China, which had a 40% non-controlling interest (see note 4).

In 2015 Outokumpu's profit attributable to SKS's non-controlling interest amounted to EUR -9 million. EUR 41 million of SKS's share capital was paid up by the non-controlling interest holder in 2015. SKS's sales was EUR 322 million and net result for the financial year was EUR -23 million in 2015 until the loss of control, before intercompany eliminations but including fair value adjustments.

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.

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 will be paid in 2017. The valuation is 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	2016	2015
In EBIT	17	-12
In financial income and expenses	-6	-7
Defined benefit cost recognized in the consolidated statement of income	11	-18
In other comprehensive income	-63	3
Total defined benefit cost recognized	-53	-15

Amounts recognized in the consolidated statement of financial position

€ million	2016	2015
Present value of funded defined benefit obligations	497	489
Present value of unfunded defined benefit obligations	307	323
Fair value of plan assets	-527	-516
Net defined benefit liability	276	295

€ million	2016	2015
Defined benefit liability	322	331
Other long-term employee benefit liabilities	34	38
Defined benefit assets	-45	-35
Net liability	311	334

Movement in net defined benefit liability

€ million	2016			2015		
	Present value of obligation	Fair value of plan assets	Net defined benefit liability	Present value of obligation	Fair value of plan assets	Net defined benefit liability
On Jan 1	812	-516	295	792	-498	295
Current service cost	10	-	10	11	-	11
Interest expense/(income)	25	-19	6	26	-19	7
Remeasurements arising from						
Return on plan assets	-	-74	-74	-	18	18
Demographic assumptions	1	-	1	-3	-	-3
Financial assumptions	140	-	140	-18	-	-18
Experience adjustment	-4	-	-4	-0	-	-0
Exchange differences	-64	70	7	31	-30	2
Employer contributions	-	-38	-38	-	-13	-13
Contributions by plan participants	1	-1	-0	1	-1	-0
Benefits paid	-36	36	-	-27	27	-
Curtailments	-27	-	-27	-	-	-
Reclassification to liabilities directly attributable to assets held for sale	-53	15	-38	-	-	-
Other change	-2	-	-2	-3	-	-3
On Dec 31	804	-527	276	812	-516	295

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, 2016 was EUR 305 million (Dec 31, 2015: EUR 275 million). For the UK, the present value of obligation was EUR 451 million (Dec 31, 2015: EUR 433 million), and the fair value of plan assets was EUR 496 million on December 31, 2016 (Dec 31, 2015: EUR 468 million).

The expected contributions to be paid to the defined benefit plans in 2017 are EUR 21 million, covering also the deficit reduction in the UK according to the agreed payment schedule.

Allocation of plan assets

€ million	2016	2015
Equity instruments	81	82
Debt instruments	277	346
Real estate	4	7
Investment funds	3	3
Other assets	160	75
Total plan assets	525	514

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 trustees monitor the investment objectives and asset allocation policy on a regular basis.

Significant actuarial assumptions

		Germany	The UK	Other countries
Discount rate, %	2016	1.75	2.75	3.82
	2015	2.25	4.00	3.86
Future salary increase, %	2016	-	-	2.24
	2015	-	3.80	2.23
Inflation rate, %	2016	-	3.50	-
	2015	-	3.30	-
Future benefit increase, %	2016	1.50	3.15	-
	2015	1.52	3.00	-
Medical cost trend rate, %	2016	-	-	6.60-7.00
	2015	-	-	7.30-7.80
Life expectancy	2016	Modified from RT 2005 G	110% SAPS All Pensioner Amounts tables	Standard mortality tables
	2015	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 17.4 years. In Germany and in the UK the weighted average durations are 14.7 and 20.2 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

2016	Change in assumption	Increase in assumption	Decrease in assumption
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%	
2015			
Discount rate	0.5%	Decrease by 7%	Increase by 7%
Future benefit increase	0.5%	Increase by 4%	Decrease by 4%
Life expectancy	1 year	Increase by 3%	

The UK

2016	Change in assumption	Increase in assumption	Decrease in assumption
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%	
2015			
Discount rate	0.5%	Decrease by 9%	Increase by 10%
Future benefit increase	0.5%	Increase by 6%	Decrease by 5%
Future salary increase	0.5%	Increase by 1%	Decrease by 1%
Life expectancy	1 year	Increase by 3%	

Other countries

2016	Change in assumption	Increase in assumption	Decrease in assumption
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%	
2015			
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 5%	

Other long-term employee benefits

Other long-term employee benefits mainly relate to long-service remunerations and early retirement provisions in Germany as well as long-service remunerations in Finland. In Germany, the employees are entitled to receive a one-time indemnity every ten years after 25 years of service. Under the 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, 2016 were EUR 34 million (Dec 31, 2015: EUR 38 million).

Multi-employer defined benefit plans

ITP pension plans operated by Alecta in Sweden and plans operated by Stichting Bedrijfspensioenfonds voor de metaalindustrie in the Netherlands are multi-employer defined benefit pension plans. However, it has not been possible to get sufficient information for the calculation of obligations and assets by employer from the plan operators, and therefore these plans have been accounted for as defined contribution plans in the consolidated financial statements.

26. Provisions

€ million	Restructuring provisions	Environmental provisions	Other provisions	Total
Provisions on Jan 1, 2016	60	63	13	136
Translation differences	-0	-2	-1	-2
Increases in provisions	35	2	13	50
Utilized during the financial year	-29	-8	-8	-46
Unused amounts reversed	-11	-1	-4	-15
Acquired subsidiaries	-	-	1	1
Reclassifications	-	9	-	9
Provisions on Dec 31, 2016	54	64	15	133

€ million	2016	2015
Non-current provisions	118	113
Current provisions	15	23
	133	136

Restructuring provisions

In 2016, increases in provisions were mainly due to global streamlining measures related to sales, general and administrative functions and restructuring measures in accordance with the EMEA restructuring plan. The restructuring provisions are expected to be paid between the years 2017–2024.

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, in the US 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. Reclassifications occurred between provisions and other current liabilities.

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	2016	2015
Non-current		
Bonds	496	248
Convertible bonds	219	210
Loans from financial institutions	24	447
Pension loans	158	165
Finance lease liabilities	90	179
	987	1,249
Current		
Bonds	-	150
Loans from financial institutions	64	20
Pension loans	8	9
Finance lease liabilities	65	28
Commercial paper	321	339
	458	547

The bonds maturing in 2019 and 2021 as well as most of the bank loans include financial covenants, which are described in note 19.

Bonds

€ million	Interest rate, %	Outstanding amount	
		2016	2015
2012 fixed rate bond maturing on June 7, 2016	5.875	-	150
2014 fixed rate bond maturing on Sept 30, 2019	6.625	250	250
2016 fixed rate bond maturing on June 16, 2021	7.250	250	-
		500	400

Convertible bonds

€ million	Interest rate, %	Outstanding amount	
		2016	2015
2015 fixed rate bond maturing on Feb 26, 2020	3.250	250	250

Finance lease liabilities

Minimum lease payments

€ million	2016	2015
Not later than 1 year	77	43
Between 1 and 5 years	96	122
Later than 5 years	151	253
Future finance charges	-169	-211
Present value of minimum lease payments	155	207

Present value of minimum lease payments

€ million	2016	2015
Not later than 1 year	65	28
Between 1 and 5 years	61	77
Later than 5 years	29	102
Present value of minimum lease payments	155	207

28. Trade and other payables

€ million	2016	2015
Non-current		
Accruals	37	48
Current		
Trade payables	1,111	830
Accrued employee-related expenses	77	81
Accrued interest expenses	11	20
VAT payable	33	45
Advances received	7	2
Withholding tax and social security liabilities	20	9
Payables related to factoring programs	48	11
Other accruals	51	50
Other payables	102	42
	1,459	1,089

29. Commitments and contingent liabilities

€ million	2016	2015
Mortgages and pledges on Dec 31		
Mortgages	3,447	3,559
Other pledges	13	30
Guarantees on Dec 31		
On behalf of subsidiaries for commercial and other commitments	27	30
On behalf of associated companies for financing	-	7
On behalf of other companies for financing	-	1
On behalf of other companies for commercial and other commitments	2	2
Other commitments	16	11

Mortgages relate mainly to securing Group's financing. A major part of Outokumpu's borrowings are secured partly by mortgage over the real property of the Group's main production plants and partly by share pledges over the shares in selected Group companies.

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

Other pledges reported in 2016 include Outokumpu's shares in Manga LNG Oy to secure certain liabilities of Manga LNG Oy. Outokumpu's total liability at the end of 2016 amounted to EUR 22 million, which is presented under other pledges and 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. Outokumpu's liability for the net debt of Rapid Power Oy at the year-end 2016 amounted to EUR 4 million (2015: EUR 7 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 2016 amounted to EUR 3 million (2015: EUR 4 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, 2016. However, Outokumpu Oyj has given ThyssenKrupp a counter-guarantee for this commitment amounting to EUR 4 million.

Present value of minimum lease payments on operating leases

€ million	2016	2015
Not later than 1 year	10	10
Between 1 and 5 years	27	24
Later than 5 years	50	38
	87	72

Operating leases include lease agreements on Group companies' premises.

Outokumpu's share of the Fennovoima investment is about EUR 250 million of which EUR 48 million has been paid by the end of the reporting period. Annual capital expenditure related to the project is expected to be around EUR 10–20 million in the coming years, and approximately half of the investment is expected to be paid only at the end of the construction phase in 2022–2023.

Group's other off-balance sheet investment commitments totaled EUR 19 million on December 31, 2016 (Dec 31, 2015: EUR 60 million).

30. Disputes and litigations

Dispute over invention rights, Outotec vs. Outokumpu

Outokumpu and Outotec have since 2013 had 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.

Cartel fine imposed by the European Commission

In March 2011, the European Court of Justice upheld a EUR 3.2 million cartel fine imposed on ThyssenKrupp Stainless AG, a legal predecessor of Outokumpu Nirosta GmbH ("Nirosta"), in a decision of the European Commission from December 2006 (the "2006 Decision"). The 2006 Decision is based on a 1998 European Commission finding (the "1998 Finding") that between 1993–1998, certain stainless steel producers, including Inoxum and certain of its legal predecessors, had violated Article 65 (1) of the European Coal and Steel Community Treaty by participating in a price-fixing arrangement with other stainless steel producers. The alleged price-fixing arrangement consisted of modifying and applying in a concerted fashion the reference values used to calculate the alloy surcharge to the base price of stainless steel. The 1998 Finding was appealed and subsequently annulled on procedural grounds with respect to Nirosta's liability for one of its legal predecessors. Subsequent to this annulment, the European Commission opened new proceedings, which resulted in the 2006 Decision. Nirosta's appeals of the 2006 Decision were unsuccessful. In April 2011, Nirosta filed a complaint (Verfassungsbeschwerde) with the German Constitutional Court (Bundesverfassungsgericht) requesting that the Court declare the 2006 Decision incompatible with certain fundamental rights under the German Constitution (Grundgesetz). The German Constitutional Court decided on July 19, 2016 not to accept the complaint. Outokumpu has decided not to pursue the matter further.

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 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.

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 13 and subsidiaries are presented in note 32.

Solidium Oy, a limited company fully owned by the State of Finland, owns 26.2% of Outokumpu on December 31, 2016. 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	2016	2015
Sales	142	137
Purchases	-6	-6
Interest income	0	1
Trade and other receivables	29	64
Trade and other payables	1	1

EUR 12 million of receivables from associated companies were impaired during 2016 in addition to EUR 10 million that were impaired on December 31, 2015. The total impairment was reversed in September 2016. Property, plant and equipment with sales price of EUR 8 million was sold to an associated company in 2015.

Employee benefits for the key management

€ thousand	2016	2015
Short-term employee benefits	7,956	4,187
Termination benefits	-	2,681
Post-employment benefits ¹⁾	1,243	1,307
Share-based payments	4,485	273
Remuneration to the Board of Directors	763	721
	14,447	9,169

¹⁾ Includes only supplementary pensions.

In 2016, key management has received EUR 978,000 related to financing arrangements of the matching share plans.

Employee benefits for CEO and Deputy CEO

€ thousand	Salaries and other short-term benefits	Termination benefits	Bonuses	Post-employment benefits	Share-based payments	Total
2016						
CEO	1,137	-	948	675	3,001	5,762
Deputy to the CEO ¹⁾	530	-	168	336	64	1,099
2015						
CEO, January 1–October 26	635	1,821	-	302	-	2,758
Deputy to the CEO	512	-	-	503	-	1,015

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.

Remuneration to Board of Directors

€ thousand	2016	2015
Chairman Jorma Ollila	151	154
Vice Chairman Olli Vaartimo	91	92
Member Markus Akermann	82	84
Member Roberto Gualdoni	82	88
Member Stig Gustavson	70	72
Member Kati ter Horst, as of April 6, 2016	65	-
Member Heikki Malinen	70	73
Member Saila Miettinen-Lähde, as of March 26, 2015	71	69
Member Elisabeth Nilsson	82	86
Member Siv Schalin, until March 26, 2015	-	4
	763	721

More information on key management's employee benefits can be found on the page Remuneration, on p.14 in the Corporate Governance section.

32. Subsidiaries on December 31, 2016

	Country	Group holding, %
Europe		
AO Outokumpu	Russia	100
Avesta Klippcenter AB	Sweden	100
Hernandez Edelstahl GmbH	¹⁾ Germany	100
Outokumpu AS	Norway	100
Outokumpu A/S	Denmark	100
Outokumpu Asia Pacific Ltd	China	100
Outokumpu Benelux B.V.	The Netherlands	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 EMEA GmbH	Germany	100
Outokumpu EMEA Oy	²⁾ Finland	100
Outokumpu Ges.m.b.H	Austria	100
Outokumpu India Private Limited	India	100
Outokumpu Industriunderhåll AB	Sweden	100
Outokumpu Istanbul Dis Ticaret Limited Sirketi	³⁾ Turkey	100
Outokumpu K.K.	Japan	100
Outokumpu Management (Shanghai) Co., Ltd.	³⁾ 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 S.r.l.	Romania	100

	Country	Group holding, %
Outokumpu Stainless AB	Sweden	100
Outokumpu Stainless B.V.	The Netherlands	100
Outokumpu Stainless (GZ) Trading Co. Ltd.	China	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

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 Plate, LLC	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
Outokumpu Stainless Pipe, Inc.	The US	100
Polarit Welding, Inc.	The US	100

Other operations

2843617 Canada Inc.	Canada	100
OHHEB GmbH	¹⁾ Germany	100
Orijärvi Oy	²⁾ Finland	100
Outokumpu Americas, Inc.	The US	100
Outokumpu Chrome Holding Oy	³⁾ Finland	100
Outokumpu Distribution Benelux B.V.	The Netherlands	100
Outokumpu Holding Germany GmbH	³⁾ Germany	100
Outokumpu Holding Italia S.p.A.	Italy	100
Outokumpu Holding Nederland B.V.	³⁾ 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

	Country	Group holding, %
Outokumpu Stainless UAB	²⁾ Lithuania	100
Outokumpu Treasury Belgium N.V./SA	³⁾ Belgium	100
Outokumpu Zinc B.V.	³⁾ The Netherlands	100
Viscaria AB	³⁾ Sweden	100
Visent Invest 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.

¹⁾ Acquired in 2016

²⁾ Established in 2016

³⁾ Shares and stock held by the parent company

33. Events after the end of the reporting period

Divestment of quarto plate mill in the US

On January 25, 2017, Outokumpu divested its quarto plate mill in New Castle, Indiana, US to D'Orazio Capital Partners, a US-based private equity company and to the mill's current management. The cash consideration of the transaction is expected to be approximately EUR 28 million, depending on the amount of the net working capital at the closing. In 2016 financial statements, the New Castle mill is presented as assets held for sale.

Key financial figures

Group key figures

		2016	2015	2014	2013	2012
Scope of activity						
Sales	€ million	5,690	6,384	6,844	6,745	4,538
- change in sales	%	-10.9	-6.7	1.5	48.6	-9.4
- exports from and sales outside Finland, of total sales	%	96.4	96.6	96.7	96.9	95.7
Capital employed on Dec 31 ¹⁾	€ million	3,816	4,133	4,072	4,265	5,623
Operating capital on Dec 31 ¹⁾	€ million	3,635	4,133	4,059	4,266	5,626
Capital expenditure ²⁾	€ million	164	154	127	183	3,149
- in relation to sales	%	2.9	2.4	1.8	2.7	69.4
Depreciation and amortization	€ million	226	302	320	332	230
Impairments	€ million	26	1	27	13	105
Research and development costs	€ million	20	23	23	26	19
- in relation to sales	%	0.4	0.4	0.3	0.4	0.4
Personnel on 31 Dec ³⁾		10,600	11,002	12,125	12,561	16,649
- average for the year ⁴⁾		10,977	11,833	12,540	13,150	7,853

¹⁾ Key figure definition changed in 2016. Figures for 2015 have been restated. Figures for 2014–2012 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⁾ Year 2012 average personnel does not include Inoxum personnel. Years 2014 and 2013 reported for continuing operations.

		2016	2015	2014	2013	2012
Profitability						
EBIT	€ million	103	228	-243	-510	-385
- in relation to sales	%	1.8	3.6	-3.6	-7.6	-8.5
EBITDA	€ million	355	531	104	-165	-50
Share of results of associated companies and joint ventures	€ million	5	49	7	-2	-0
Result before taxes	€ million	-13	127	-459	-822	-524
- in relation to sales	%	-0.2	2.0	-6.7	-12.2	-11.5
Net result for the financial year	€ million	144	86	-439	-1,003	-536
- in relation to sales	%	2.5	1.4	-6.4	-14.9	-11.8
Return on equity ¹⁾	%	6.4	3.9	-21.8	-41.4	-21.4
Return on capital employed ¹⁾	%	2.6	5.3	-5.8	-10.3	-8.2
Return on operating capital ¹⁾	%	2.7	5.3	-5.8	-10.3	-8.2

		2016	2015	2014	2013	2012
Financing and financial position						
Liabilities	€ million	3,574	3,546	4,279	5,884	5,949
Net debt	€ million	1,242	1,610	1,974	3,556	3,431
- in relation to sales	%	21.8	25.2	28.8	52.7	75.6
Net financial expenses	€ million	121	149	223	310	138
- in relation to sales	%	2.1	2.3	3.3	4.6	3.1
Net interest expenses	€ million	102	125	139	197	66
- in relation to sales	%	1.8	2.0	2.0	2.9	1.5
Interest cover		0.9	2.0	-2.3	-3.2	-6.9
Share capital	€ million	311	311	311	311	311
Other equity	€ million	2,105	2,018	1,821	1,580	2,641
Equity-to-assets ratio	%	40.4	39.6	33.3	21.5	30.5
Debt-to-equity ratio	%	51.4	69.1	92.6	188.0	116.2
Net cash generated from operating activities ⁵⁾	€ million	389	-34	-126	34	266
Dividends	€ million	0.10 ⁶⁾	-	-	-	-

⁵⁾ Cash flows for 2014 and 2013 presented for continuing operations.

⁶⁾ The Board of Directors' proposal to the Annual General Meeting.

Share-related key figures

		2016	2015	2014	2013	2012
Earnings per share ^{1), 2)}	€	0.35	0.23	-1.24	-7.52	-0.46
Earnings per share, continuing operations ^{2), 3)}	€	-	-	-1.27	-6.23	-
Cash flow per share ^{1), 2)}	€	0.94	-0.08	-0.36	0.26	0.23
Equity per share ^{2), 4)}	€	5.84	5.60	5.13	14.23	22.07
Dividend per share	€	0.10 ⁵⁾	-	-	-	-
Dividend payout ratio	%	28.8	0.0	neg.	neg.	neg.
Dividend yield	%	1.2	0.0	0.0	0.0	0.0
Price/earnings ratio		24.31	11.85	neg.	neg.	neg.
Development of share price ⁶⁾						
Average trading price	€	4.51	4.49	5.16	4.64	0.97
Lowest trading price	€	2.08	2.06	3.37	3.03	0.64
Highest trading price	€	8.51	7.76	7.50	7.39	2.10
Trading price at the end of the period	€	8.51	2.73	4.77	3.55	0.79
Change during the period ⁷⁾	%	211.3	-42.7	34.2	-48.8	-40.3
Change in the OMX Helsinki index during the period	%	3.6	10.8	5.7	26.5	8.3
Market capitalization at the end of the period	€ million	3,541	1,138	1,987	845	1,650
Development in trading volume						
Trading volume ⁸⁾	1,000 shares	955,682	1,345,515	695,235	178,989	1,297,738
In relation to weighted average number of shares ¹⁾	%	230.6	323.9	198.9	135.0	112.5
Adjusted average number of shares ⁹⁾		414,411,287	415,473,976	349,558,854	132,579,577	1,156,005,029
Number of shares at the end of the period ^{8), 9), 10)}		413,860,600	415,489,308	415,426,724	2,077,105,460	2,077,065,460

¹⁾ 2014 and 2013 calculated based on the rights-issue-adjusted weighted average number of shares. 2012 has not been restated.

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

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

⁴⁾ 2013 and 2012 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. 2012 has not been adjusted.

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 and 2012 not adjusted according to the effect of the rights-issue-adjusted and the reverse split.

Definitions of key financial figures

Capital employed = $\frac{\text{Total equity} + \text{net debt} + \text{net defined benefit and other long-term employee benefit obligations} + \text{net interest rate derivative liabilities} + \text{net accrued interest expenses} - \text{net assets held for sale} - \text{loans receivable} - \text{available-for-sale financial assets} - \text{investments at fair value through profit or loss} - \text{investments in associated companies and joint ventures}}{\text{Total equity}}$

Operating capital = Capital employed + net deferred tax liability

Research and development costs = Research and development expenses in the statement of income (including expenses covered by grants received)

Underlying EBIT = EBIT – Items classified adjustments

EBITDA = EBIT before depreciation, amortization and impairments

Return on equity = $\frac{\text{Net result for the financial period (4-quarter rolling)}}{\text{Total equity (4-quarter rolling average)}} \times 100$

Return on capital employed (ROCE) = $\frac{\text{EBIT (4-quarter rolling)}}{\text{Capital employed (4-quarter rolling average)}} \times 100$

Return on operating capital (ROOC) = $\frac{\text{EBIT (4-quarter rolling)}}{\text{Operating capital (4-quarter rolling average)}} \times 100$

Net debt = Non-current debt + current debt – cash and cash equivalents

Interest cover = $\frac{\text{Result before taxes} + \text{net interest expenses}}{\text{Net interest expenses}}$

Equity-to-assets ratio = $\frac{\text{Total equity}}{\text{Total assets} - \text{advances received}} \times 100$

Debt-to-equity ratio = $\frac{\text{Net debt}}{\text{Total equity}} \times 100$

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

Parent company financial statements

Income statement of the parent company

€ million	2016	2015
Sales	561	649
Cost of sales	-451	-580
Gross margin	109	69
Other operating income	9	10
Selling and marketing expenses	-27	-32
Administrative expenses	-123	-84
Other operating expenses	-20	-118
EBIT	-52	-156
Financial income and expenses	157	311
Result before appropriations and taxes	105	156
Appropriations		
Group contribution	0	-
Change in depreciation difference	0	0
Income taxes	-1	-0
Result for the financial year	105	155

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. The parent company's complete financial statements (available only in Finnish) can be read on the company's internet pages www.outokumpu.com.

Balance sheet of the parent company

€ million	2016	2015
ASSETS		
Non-current assets		
Intangible assets	28	19
Property, plant and equipment	21	11
Financial assets		
Shares in Group companies	4,037	3,798
Loan receivables from Group companies	428	740
Shares in associated companies	31	31
Other shares and holdings	49	36
Other financial assets	0	2
	4,545	4,607
Total non-current assets	4,594	4,637
Current assets		
Current receivables		
Interest-bearing	1,774	2,260
Non interest-bearing	163	225
	1,937	2,485
Cash and cash equivalents	124	139
Total current assets	2,062	2,624
TOTAL ASSETS	6,655	7,260

€ million	2016	2015
EQUITY AND LIABILITIES		
Shareholders' equity		
Share capital	311	311
Premium fund	720	720
Invested unrestricted equity reserve	2,123	2,123
Retained earnings	19	-130
Result for the financial year	105	155
	3,278	3,181
Untaxed reserves		
Accumulated depreciation difference	0	0
Liabilities		
Non-current liabilities		
Interest-bearing	915	1,096
	915	1,096
Current liabilities		
Interest-bearing	2,190	2,725
Non interest-bearing	272	259
	2,462	2,984
Total liabilities	3,377	4,080
TOTAL EQUITY AND LIABILITIES	6,655	7,260

Cash flow statement of the parent company

€ million	2016	2015
Cash flow from operating activities		
Result for the financial year	105	155
Adjustments for		
Taxes	1	0
Depreciation and amortization	6	6
Impairments	8	117
Gain/loss on sale of intangible assets, and property, plant and equipment	-2	-5
Interest income	-124	-137
Dividend income	-119	-272
Interest expense	64	88
Change in provisions	-1	1
Exchange gains and losses	-2	-13
Gain on disposal of other financial assets	-5	-
Other adjustments	2	-
	-173	-215
Change in working capital		
Change in trade and other receivables	47	-64
Change in trade and other payables	23	-51
	71	-116
Dividends received	119	272
Interest received	124	133
Interest paid	-69	-86
Income taxes paid	-1	0
	174	319
Net cash from operating activities	176	143

€ million	2016	2015
Cash flow from investing activities		
Investments in subsidiaries and other shares and holdings	-267	-222
Purchases of property, plant and equipment	-1	-0
Purchases of intangible assets	-28	-31
Proceeds from disposal of subsidiaries and other disposals	4	1,020
Proceeds from sale of property, plant and equipment	0	16
Proceeds from sale of intangible assets	8	22
Proceeds from sale of other financial assets	0	-
Change in other long-term receivables	11	261
Net cash from investing activities	-272	1,067
Cash flow before financing activities	-95	1,210
Cash flow from financing activities		
Repurchase of treasury shares	-7	-
Gain on disposal of other financial assets	6	-
Borrowings of non-current debt	369	326
Repayments of non-current debt	-637	-589
Change in current debt	-400	-409
Other financing cash flow	751	-520
Net cash from financing activities	81	-1,192
Net change in cash and cash equivalents	-14	18
Net change in cash and cash equivalents in the balance sheet	-14	18

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, 2015	311	720	2,123	-130	3,025
Result for the financial year	-	-	-	155	155
Equity on Dec 31, 2015	311	720	2,123	26	3,181
Result for the financial year	-	-	-	105	105
Treasury shares repurchase	-	-	-	-7	-7
Equity on Dec 31, 2016	311	720	2,123	123	3,278

Distributable funds on Dec 31

€ million	2016	2015
Retained earnings	19	-130
Result for the financial year	105	155
Invested unrestricted equity reserve	2,123	2,123
Distributable funds on Dec 31	2,247	2,149

Commitments and contingent liabilities of the parent company

€ million	2016	2015
Pledges on Dec 31	13	30
Guarantees on Dec 31		
On behalf of subsidiaries		
For financing	304	261
For commercial guarantees	1	4
For other commitments	26	29
On behalf of associated companies		
For financing	-	7
On behalf of sold companies		
For financing	-	1
For commercial and other guarantees	-	1
Other commitments	16	11

A major part of Outokumpu's borrowings are secured partly by share pledges over the shares in selected Group companies and partly by security to the real property of selected subsidiaries.

Pledges reported in 2016 include Outokumpu's shares in Manga LNG Oy to secure certain liabilities of Manga LNG Oy. Outokumpu's total liability at the end of 2016 amounts to EUR 22 million, which is presented under pledges and 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. Outokumpu's liability for the net debt of Rapid Power Oy at the year-end 2016 amounted to EUR 4 million (2015: EUR 7 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 2016 amounted to EUR 3 million (2015: EUR 4 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, 2016. However, Outokumpu Oyj has given ThyssenKrupp a counter-guarantee for this commitment amounting to EUR 4 million.

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

Working towards a world that lasts forever.

Outokumpu is a global leader in stainless steel. We create advanced materials that are efficient, long lasting and recyclable – thus building a world that lasts forever.

Stainless steel, invented a century ago, is an ideal material to create lasting solutions in demanding applications from cutlery to bridges, energy and medical equipment: it is 100% recyclable, corrosion-resistant, maintenance-free, durable and hygienic.

Outokumpu employs some 10,000 professionals in more than 30 countries, with headquarters in Helsinki, Finland and shares listed in Nasdaq Helsinki.

outokumpu

working towards a world that lasts forever



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