Financial Statements 2019

Kemira

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○ PART OF THE AUDITED FINANCIAL STATEMENTS 2019

Board of Directors' Review 2019

In 2019, Kemira Group's revenue increased by 3% to EUR 2,658.8 million (2,592.8) as sales price increases and currency exchange rates had positive impacts. Revenue in local currencies, excluding acquisitions and divestments, was stable.

Operative EBITDA increased 27% to EUR 410.0 million (323.1). In absolute terms, it increased by EUR 86.9 million, of which the adoption of the IFRS 16 standard contributed EUR 34.3 million. Operative EBITDA margin increased to 15.4% (12.5%).

EBITDA increased by 21% to EUR 382.3 million (314.8). The difference to operative EBITDA growth is explained by items affecting comparability, which were mainly caused by a provision for existing, old litigation and increased provisions for environmental liabilities related to a site closure in 2013.

EPS, diluted, increased by 23% to EUR 0.72 (0.58) mainly due to higher EBIT. The Board of Directors proposes a cash dividend of EUR 0.56 per share (0.53) to the Annual General Meeting 2020, totaling EUR 85 million (81). It is proposed that the dividend be paid in two installments.

KEY FIGURES AND RATIOS

EUR million	2019	2018
Revenue	2,658.8	2,592.8
Operative EBITDA	410.0	323.1
Operative EBITDA, %	15.4	12.5
EBITDA	382.3	314.8
EBITDA, %	14.4	12.1
Operative EBIT	224.0	173.8
Operative EBIT, %	8.4	6.7
EBIT	194.4	148.2
EBIT, %	7.3	5.7
Net profit for the period	116.5	95.2
Earnings per share, EUR	0.72	0.58

EUR million	2019	2018
Capital employed*	1,998.2	1,781.4
Operative ROCE*, %	11.2	9.8
ROCE*, %	9.7	8.3
Cash flow from operating activities	386.2	210.2
Capital expenditure excl. acquisition	201.1	150.4
Capital expenditure	204.1	193.7
Cash flow after investing activities	189.8	29.0
Equity ratio, % at period-end	42.6	43.5
Equity per share, EUR	7.98	7.80
Gearing, % at period-end	65.9	61.7
Personnel at period-end	5,062	4,915

Kemira adopted the IFRS 16 Leases standard on January 1, 2019. Further information regarding the standard change is available in Note 1 Group Accounting Policies.

*12-month rolling average (ROCE, % based on the EBIT).

Kemira provides certain financial performance measures (alternative performance measures) that are not defined by IFRS. Kemira believes that alternative performance measures followed by capital markets and Kemira management, such as organic growth (revenue growth in local currencies, excluding acquisitions and divestments), EBITDA, operative EBITDA, cash flow after investing activities as well as gearing, provide useful information about Kemira's comparable business performance and financial position. Selected alternative performance measures are also used as performance criteria in remuneration.

Kemira's alternative performance measures should not be viewed in isolation to the equivalent IFRS measures, and alternative performance measures should be read in conjunction with the most directly comparable IFRS measures. Definitions of the alternative performance measures can be found in the definitions of the key figures in this report, as well as at **www.kemira.com** > Investors > Financial information. All the figures in this report have been individually rounded, and consequently the sum of the individual figures may deviate slightly from the sum figure presented.

FINANCIAL PERFORMANCE IN 2019

Revenue increased by 3%, mainly due to higher sales prices in Industry & Water and a positive currency impact. Revenue in local currencies, excluding acquisitions and divestments, was stable.

Revenue	2019 EUR, million	2018 EUR, million	Δ%	Organic growth*, %	Currency impact, %	Acq. & div. impact, %
Pulp & Paper	1,522.9	1,520.2	0	-2	+2	+1
Industry & Water	1,135.9	1,072.6	6	+4	+2	0
Total	2,658.8	2,592.8	3	0	+2	0

* Revenue in local currencies, excluding acquisitions and divestments

Geographically, the revenue split was as follows: EMEA (Europe, Middle East, Africa) 50% (52%), the Americas 40% (39%), and Asia Pacific 10% (9%).

Operative EBITDA increased by 27%, mainly due to higher sales prices.

Variance analysis, EUR million	Jan-Dec
Operative EBITDA, 2018	+323.1
Sales volumes	-30.8
Sales prices	+90.4
Variable costs	+21.7
Fixed costs	-34.0
Adoption of IFRS 16 accounting standard	+34.3
Currency exchange	+16.6
Others	-11.3
Operative EBITDA, 2019	+410.0

Operative EBITDA	2019 EUR, million	2018 EUR, million	Δ%	2019 %-margin	2018 %-margin
Pulp & Paper	218.3	191.7	14	14.3	12.6
Industry & Water	191.7	131.5	46	16.9	12.3
Total	410.0	323.1	27	15.4	12.5

EBITDA increased by 21%. The difference between it and operative EBITDA is explained by items affecting comparability. **Items affecting comparability** were mainly caused by a provision for existing, old litigation and increased provisions for environmental liabilities related to a site closure in 2013. In the previous year, items affecting comparability mainly included organizational restructuring costs.

Items affecting comparability, EUR million	2019	2018
Within EBITDA	-27.7	-8.3
Pulp & Paper	-25.8	-3.9
Industry & Water	-1.8	-4.4
Within depreciation, amortization and impairments	-1.9	-17.3
Pulp & Paper	0.0	-7.9
Industry & Water	-1.9	-9.4
Total items affecting comparability in EBIT	-29.6	-25.6

Depreciation, amortization and impairments increased to EUR 187.9 million (166.6), including the EUR 29.8 million (0.0) depreciation of right-of-use assets (IFRS 16) and EUR 18.5 million (15.7) amortization of the purchase price allocation. In 2018, depreciation, amortization and impairments included **items affecting comparability** of EUR -17.3 million related to closures of manufacturing units.

Operative EBIT increased by 29%, mainly due to higher sales prices. **EBIT** increased by 31%, and the difference between the two is explained by items affecting comparability.

Finance costs, net totaled EUR -39.7 million (-25.0), including interest costs related to lease liabilities. The year 2018 included a EUR 3.6 million gain from the sale of shares in power plant companies. **Income taxes** were EUR -38.2 million (-28.1) as a result of higher profit before taxes, with the reported tax rate being 25% (23%).

Net profit for the period increased by 22%, mainly due to higher EBIT.

FINANCIAL POSITION AND CASH FLOW

Cash flow from operating activities in January-December increased to EUR 386.2 million (210.2). Cash flow after investing activities increased to EUR 189.8 million (29.0), mainly due to higher profitability and reduction of net working capital. In addition, EUR 15 million of excess capital from Kemira's supplementary pension fund in Finland was returned. The adoption of the IFRS 16 accounting standard increased cash flow after investing activities by EUR 28.4 million, which is now represented as part of net cash used in financing activities.

At the end of 2019, interest-bearing liabilities totaled EUR 955 million (886) including lease liabilities of EUR 134 million due to the adoption of the IFRS 16 accounting standard. Excluding the IFRS 16 impact, interest-bearing liabilities decreased by 66 million from the previous year . The average interest rate of the Group's interest-bearing loan portfolio, excluding leases, was 1.9% (1.9%), and the duration was 26 months (31). Fixed-rate loans accounted for 87% (79%) of net interest-bearing liabilities, including lease liabilities.

Short-term liabilities maturing in the next 12 months amounted to EUR 217 million. On December 31, 2019, cash and cash equivalents totaled EUR 143 million (145). On April 17, 2019 Kemira Oyj signed a EUR 400,000,000 five year multicurrency revolving credit facility, linked to Kemira's sustainability targets, with two one-year extension options. The credit facility was undrawn at the end of the year.

At the end of the period, Kemira Group's net debt was EUR 811 million (741), including lease liabilities of EUR 134 million (0) due to the adoption of the IFRS 16 accounting standard. The equity ratio was 43% (44%), while gearing was 66% (62%).

Kemira is exposed to transaction and translation currency risks. The Group's most significant transaction currency risks arise from the U.S. dollar, the Canadian dollar and the Swedish krona. At the end of the year, the U.S. dollar denominated exchange rate risk was approximately EUR 91 million, of which 47% was hedged on an average basis. The Canadian dollar denominated exchange rate risk against USD had an equivalent value of approximately EUR 56 million, of which 42 % was hedged on an average basis. The Canadian dollar's denominated exchange rate risk against EUR had an equivalent value of approximately EUR 25 million, of which 52% was hedged on an average basis. The denominated exchange rate risk of the Swedish krona against EUR had an equivalent value of approximately EUR 43 million, of which 72 % was hedged on an average basis. In addition, Kemira is exposed to smaller transaction risks mainly in relation to the Chinese renminbi, the Norwegian krona, Polish zloty, Great Britain pound, Russian rubble and the Brazilian real with the annual exposure in those currencies being approximately EUR 108 million.

As Kemira's consolidated financial statements are compiled in euros, Kemira is also subject to a currency translation risk to the extent to which the income statement and balance sheet items of subsidiaries located outside Finland are reported in a currency other than the euro. The most significant translation exposure on revenue and EBITDA derive from the U.S. dollar and the Canadian dollar. Strengthening of currencies against the euro would increase Kemira's revenue and EBITDA through a translation effect.

CAPITAL EXPENDITURE

In January-December, capital expenditure, excluding acquisitions, increased by 34% to EUR 201.1 million (150.4). Capital expenditure can be broken down as follows: expansion capex 49% (29%), improvement capex 19% (36%), and maintenance capex 32% (35%). The largest expansion capital expenditures related to the added polymer capacity in the Netherlands, the new AKD sizing manufacturing site in China, expanded sodium chlorate capacity and expansion of a polymer facility in the USA.

RESEARCH AND DEVELOPMENT

In January-December 2019, total research and development expenses were EUR 30.3 million (30.2), representing 1.1% (1.2%) of the Group's revenue.
Kemira's Research and Development is an enabler of growth and further differentiation. New product launches contribute to the efficiency and sustainability of customer processes and to improved profitability. Both Kemira's future market position and profitability depend on the company's ability to understand and meet current and future customer needs and market trends, as well as on its ability to innovate new, differentiated products and applications.

At the end of 2019, Kemira had 365 (366) patent families, including 1,681 (1,546) granted patents, and 1,087 (1,042) pending applications. During 2019, Kemira applied for 37 (34) new patents. Commercialization of five projects related to new products started in 2019, and three of them are designed to improve customer resource efficiency.

HUMAN RESOURCES

At the end of the period, Kemira Group had 5,062 employees (4,915). Kemira had 786 employees in Finland (802), 1,759 people elsewhere in EMEA (1,777), 1,570 in the Americas (1,559), and 947 in APAC (777). The growth in APAC is related to the new manufacturing site in China.

NON-FINANCIAL INFORMATION

CORPORATE SUSTAINABILITY PRIORITIES

Kemira has systematic procedures in place to evaluate and address economic, environmental and social impacts from its own operations and business relationships. Our corporate sustainability priorities are based on the most material impacts across our business model, on the increasing expectations of our customers, investors and other stakeholders, and on our commitment to the Kemira Code of Conduct and internationally agreed sustainability principles. Kemira is a signatory of The United Nations Global Compact, committing us to implement universal sustainability principles and to respect and promote human rights, implement decent work practices, reduce our environmental impact, and combat corruption. Kemira is also committed to operate according to the principles of Responsible Care®, a voluntary commitment created by the global chemical industry to drive continuous improvement and achieve excellence in environmental, health and safety and security performance.

Our management approach has three priority areas, which cover the six most material topics and their impact:

Sustainable products and solutions

- Product sustainability: Products improving our customers' sustainability, product design for use-phase resource efficiency.
- Product stewardship: chemical safety management throughout the lifecycle of our products.

Responsible operations and supply chain

- Responsible management of our operations to ensure staff safety and to protect our assets and environment. Key topics are Workplace safety and Climate change.
- Supplier management for risk and compliance management.

People and integrity

- People: employee engagement and development of employee competence.
- Integrity: responsible business practices in our own operations and with our business partners.

Kemira measures progress in the priority areas through group-level key performance indicators (KPI) and targets that are approved by the Management Board and reviewed by the Board of Directors. The relevant management processes relating to material corporate sustainability issues are continuously developed and implemented as part of our integrated management system.

SUSTAINABLE PRODUCTS AND SOLUTIONS

Kemira is committed to ensuring the sustainability of our products and solutions. In 2018, we introduced a KPI to measure the share of revenue from products used to improve use-phase resource efficiency. This KPI provides a crucial linkage to our purpose and strategy.

Kemira's New Product Development (NPD) process evaluates the economic, environmental, and social impacts of any new product, compared to existing benchmarked solutions. Successful NPD projects must demonstrate both improved sustainability and business benefits at each decision gate to justify the project's continuation, and ultimately the product launch.

Kemira's product stewardship policy defines principles for the proactive management of the health, safety and environmental aspects of a product throughout its life cycle. We also work to find less hazardous and more sustainable alternatives for raw materials. Other measures include ensuring safe transportation, handling, storage and disposal of our products in the value chain.

RESPONSIBLE OPERATIONS AND SUPPLY CHAIN

Kemira is committed to ensuring responsible operations to protect our assets, our environment, employees, contractors, customers and communities. Globally, we aim to bring together all of our operations under the Kemira integrated management system. The Kemira management system defines the way our organization works through the set of policies, standards, procedures and processes. It also defines the requirements and accountabilities at each level of the organization. Kemira follows the principle that all operations under our Integrated Management System meet international standards for environment, health, safety, and quality. Our energy management system is certified to the ISO 50001:2001 standard.

Ensuring workplace safety is a key priority in all our operations. We strive for continuous improvement to reduce our environmental impacts. Kemira has renewed its commitment to climate action in 2019 by setting a new target to reduce by 30% combined scope 1 and 2 emissions by 2030, from a 2018 baseline of 936 thousand tons CO_2e. Our long-term ambition is to be carbon neutral by 2045 for combined scope 1 and 2 emissions.

Kemira is committed to ensuring compliance with responsible business practices throughout our supply chain. Kemira's Code of Conduct for Business Partners (CoC-BP) sets out principles for responsible business conduct, respect for human rights and provision of appropriate working conditions, and environmental responsibility. Compliance with the Kemira CoC-BP is required by all our suppliers and business partners. Our strategic, critical, and large-spend suppliers are requested to participate in a sustainability assessment process sustainability evaluation based on the international sustainability standards of the Global Reporting Initiative, the United Nations Global Compact, and the ISO 26000 social responsibility guidance standard. Based on the results of the assessment, the suppliers are classified into risk categories and the necessary actions are defined. Suppliers with ongoing improvement plans are always reassessed the following year, and high-risk suppliers are audited.

PEOPLE AND INTEGRITY

Culture and commitment to our employees are an important success factor in our business. Kemira's performance management process aligns our strategic targets with each employees' personal targets, competences and development plans. The process is a part of Kemira's leadership culture and it forms the backbone of our management system.

Our Code of Conduct is the foundation for our business conduct in Kemira. It sets the minimum standards of expected behavior for our employees and business partners. Kemira is committed to the principles of The Universal Declaration of Human Rights and the United Nations Global Compact, and we also expect our business partners to abide by these principles. Kemira principles of anti-corruption are included in the Code of Conduct. Kemira does not tolerate improper or corrupt payments made either directly or indirectly to a customer, government official or third party, including facilitation payments, improper gifts, entertainment, gratuities, favors, donations or any other improper transfer of value. We engage only reputable sales representatives and other third parties who share the same commitment.

Code of Conduct training is mandatory for all our employees, and there are advisory, monitoring and reporting procedures in place to ensure proper accomplishment of the code. We maintain an ethics and compliance hotline for employees to enable them to report potential violations of the Code of Conduct or any other concerns.

Mandatory anti-bribery training is provided for selected groups of personnel who need to have a comprehensive understanding of Kemira's anti-corruption principles. Awareness of anti-corruption matters is delivered through our Code of Conduct training to all employees. Kemira has conducted an ethics and compliance risk assessment to evaluate corruption-related and bribery-related risks in its operations. There were no confirmed incidents of corruption or public legal cases regarding corruption in 2019.

NON-FINANCIAL REPORTING

More detailed information is presented in Kemira Annual Report 2019, in the business overview and corporate sustainability sections. The non-financial disclosures are based on the Global Reporting Initiative disclosures, which are prepared in accordance with the GRI standards (2016) and externally assured by an independent third-party.

Kemira

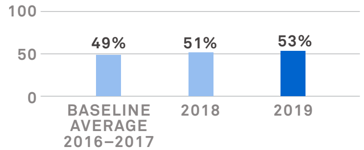
CORPORATE SUSTAINABILITY PERFORMANCE

Sustainable products and solutions

PRODUCT SUSTAINABILITY

AHEAD OF TARGET

Share of revenue from products used for use-phase resource efficiency. At least 50% of Kemira's revenue generated through products improving customers' resource efficiency.

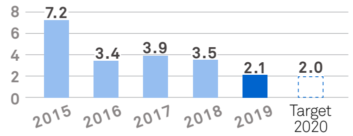


Responsible operations and supply chain

WORKPLACE SAFETY

IN PROGRESS

Achieve zero injuries in long term; TRIF* 2.0 by the end of 2020.

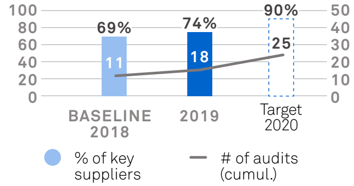


* TRIF = Number of Total Recordable Injury Frequency per million hours, Kemira + contractors

SUPPLIER MANAGEMENT

IN PROGRESS

Share of direct key suppliers screened through sustainability assessments and audits (cumulative %). The target includes 5 sustainability audits for highest risk*** suppliers every year, and cumulatively 25 by 2020.

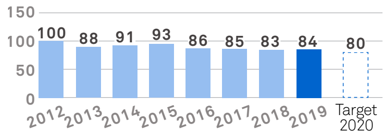


*** Suppliers with lowest sustainability assessment score

CLIMATE CHANGE

IN PROGRESS

Kemira Carbon Index ≤ 80 by end of 2020 (2012 = 100). This KPI is reported once a year.**



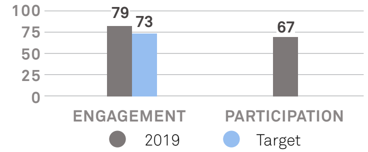
** At the end of 2019, Kemira set an ambition to be carbon neutral by 2045 and a new target of reducing combined scope 1 and 2 greenhouse gases by 2030, relative to 2018 levels.

People and integrity

EMPLOYEE ENGAGEMENT INDEX BASED ON MYVOICE SURVEY

IN PROGRESS

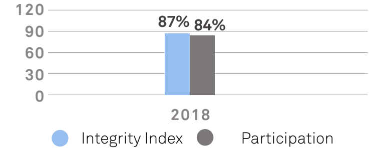
Keep the index at or above the external industry norm.



INTEGRITY INDEX

IN PROGRESS

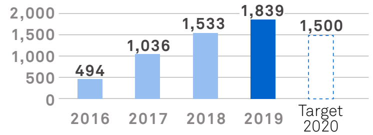
New KPI to measure compliance with the Kemira Code of Conduct. The target is to maintain the Integrity Index level above the external industry norm.



LEADERSHIP DEVELOPMENT ACTIVITIES PROVIDED

AHEAD OF TARGET

Two leadership development activities per people in manager position during 2016–2020, the cumulative target is 1,500 by 2020.



SEGMENTS

PULP & PAPER

Pulp & Paper has unique expertise in applying chemicals and supporting pulp and paper producers in innovating and constantly improving their operational efficiency. The segment develops and commercializes new products to fulfill customer needs, ensuring the leading portfolio of products and services for bleaching of pulp as well as paper wet-end, focusing on packaging, board and tissue. Pulp & Paper is leveraging its strong application portfolio in North America and EMEA, while also building a strong position in the emerging Asian and South American markets.

EUR million	2019	2018
Revenue	1,522.9	1,520.2
Operative EBITDA	218.3	191.7
Operative EBITDA, %	14.3	12.6
EBITDA	192.4	187.8
EBITDA, %	12.6	12.4
Operative EBIT	99.2	91.6
Operative EBIT, %	6.5	6.0
EBIT	73.4	79.8
EBIT, %	4.8	5.2
Capital employed*	1,289.4	1,177.6
Operative ROCE*, %	7.7	7.8
ROCE*, %	5.7	6.8
Capital expenditure excl. M&A	109.7	85.1
Capital expenditure incl. M&A	112.5	128.4
Cash flow after investing activities	139.4	29.9

*12-month rolling average

The segment's **revenue** was stable . Positive currency impact, higher sales prices and acquisition impact balanced the volume decline. Revenue in local currencies, excluding divestments and acquisitions, decreased by 2%. This was due to the closure of the non-core detergent business (ECOX), lower caustic soda sales prices (mainly a trading product) as well as lower volumes in process and functional chemicals.

In **EMEA**, revenue decreased by 5% to EUR 787.8 million (826.1), mainly due to the closure of the non-core detergent business (ECOX), lower caustic soda sales prices (mainly a trading product) and lower volumes, mainly in sizing chemicals.

In the **Americas**, revenue increased by 2% to EUR 498.7 million (488.3), mainly due to a positive currency impact. In local currencies, revenue declined due to North America, where sales volumes declined in process and functional chemicals, while in South America both sales prices and volumes were quite stable.

In **APAC**, revenue increased by 15% to EUR 236.4 million (205.8), mainly due to higher volumes. The demand for sizing chemicals was particularly strong. Currencies also had a positive impact.

Operative EBITDA increased by 14%, mainly due to higher sales prices and lower variable costs. Currencies also had a positive impact. **EBITDA** increased by 2%. The difference between it and operative EBITDA is explained by items affecting comparability, which were mainly caused by a provision for existing, old litigation and increased provisions for environmental liabilities related to a site closure in 2013.

Due to the adoption of the IFRS 16 accounting standard, fixed costs do not include operating lease expenses in 2019. The corresponding positive EBITDA impact in January-December amounted to EUR 14.1 million in the segment.

INDUSTRY & WATER

Industry & Water supports municipalities and water-intensive industries in the efficient and sustainable use of resources. In water treatment, Kemira provides assistance in optimizing various stages of the water cycle. In oil and gas applications, our chemistries enable improved yield from existing reserves, as well as reduced water and energy use.

EUR million	2019	2018
Revenue	1,135.9	1,072.6
Operative EBITDA	191.7	131.5
Operative EBITDA, %	16.9	12.3
EBITDA	189.9	127.0
EBITDA, %	16.7	11.8
Operative EBIT	124.7	82.2
Operative EBIT, %	11.0	7.7
EBIT	121.0	68.5
EBIT, %	10.6	6.4
Capital employed*	708.2	603.4
Operative ROCE*, %	17.6	13.6
ROCE*, %	17.1	11.3
Capital expenditure excl. M&A	91.4	65.3
Capital expenditure incl. M&A	91.7	65.3
Cash flow after investing activities	128.7	52.5

*12-month rolling average

The segment's **revenue** increased by 6%. Revenue in local currencies, excluding acquisitions and divestments, increased by 4%. Growth was driven by higher sales prices. Currency exchange rates had an impact of +2%.

Within the segment, revenue for the Oil & Gas business increased by 21% to EUR 291.8 million (241.9) due to higher sales prices and volumes. Currencies also had a positive impact. In the water treatment business, the focus on improving the product and market mix continued to lead to higher sales prices and expected decline in volumes. Currencies also had a positive impact.

In **EMEA**, revenue increased by 3% to EUR 551.9 million (534.3), driven by higher sales volumes for Chemical Enhanced Oil Recovery.

In the **Americas**, revenue increased by 10% to EUR 563.4 million (512.9), driven by higher sales prices in the North American water treatment business and in Oil & Gas business. Currencies also had a positive impact on revenue.

In **APAC**, revenue decreased by 19% to EUR 20.6 million (25.4) due to lower volumes in polymers.

Operative EBITDA increased by 46% as a result of higher sales prices, while variable costs increased slightly and sales volumes declined due to the focus on improving the product mix. **EBITDA** increased by 50%, and the difference between it and operative EBITDA is explained by items affecting comparability.

Due to the adoption of the IFRS 16 accounting standard, fixed costs do not include operating lease expenses in 2019. The corresponding positive EBITDA impact in January-December amounted to EUR 20.2 million in the segment.

PARENT COMPANY'S FINANCIAL PERFORMANCE

Kemira Oyj's revenue increased to EUR 1,542.6 million (1,489.7) in 2019. EBITDA was EUR 131.2 million (49.1). EBITDA increased, mainly due to a decrease in materials and services. The parent company's financing income and expenses were EUR 87.3 million (119.6). Financing income and expenses decreased, mainly due to lower dividend distribution from Group companies. Net profit totaled EUR 93.5 million (132.5). The total capital expenditure was EUR 15.9 million (26.2), excluding investments in subsidiaries.

KEMIRA OYJ'S SHARES AND SHAREHOLDERS

On December 31, 2019, Kemira Oyj's share capital amounted to EUR 221.8 million and the number of shares was 155,342,557. Each share entitles the holder to one vote at the Annual General Meeting.

At the end of December, Kemira Oyj had 33,345 registered shareholders (34,378 on December 31, 2018). Non-Finnish shareholders held 31.9% of the shares (27.4%), including nominee-registered holdings. Households owned 15.6% of the shares (17.1%). Kemira held 2,693,111 treasury shares (2,832,297), representing 1.7% (1.8%) of all company shares.

Kemira Oyj's share price increased by 35% from the beginning of the year and closed at EUR 13.26 on the Nasdaq Helsinki at the end of December 2019 (9.85 on December 31, 2018). Shares registered a high of EUR 14.99 and a low of EUR 9.77 in January-December 2019, and the average share price was EUR 12.56. The company's market capitalization, excluding treasury shares, was EUR 2,024 million at the end of December 2019 (1,502).

In January-December 2019, Kemira Oyj's share trading turnover on the Nasdaq Helsinki was EUR 682 million (479 in January-December 2018). The average daily trading volume was 230,086 (175,444) shares. The total volume of Kemira Oyj's share trading in January-December 2019 was 74 million shares (68), 28% (35%) of which was executed on other trading platforms (BATS, Chi-X, Turquoise). Source: Nasdaq and Kemira.com.

OWNERSHIP DECEMBER 31, 2019

Owners	Shares and votes
Corporations	24.7%
Financial and insurance corporations	5.8%
General government	18.8%
Households	15.6%
Non-profit institutions	3.2%
Non-Finnish shareholders incl. nominee registered	31.9%

SHAREHOLDING BY NUMBER OF SHARES HELD DECEMBER 31, 2019

Number of shares	Number of shareholders	% of shareholders	Shares total	% of share and votes
1–100	9,062	27.2	515,810	0.3
101–500	13,572	40.7	3,694,319	2.4
501–1,000	5,036	15.1	3,882,545	2.5
1,001–5,000	4,760	14.3	9,969,756	6.4
5,001–10,000	516	1.5	3,785,723	2.4
10,001–50,000	301	0.9	5,982,477	3.9
50,001–100,000	40	0.1	2,997,175	1.9
100,001–500,000	41	0.1	8,434,637	5.4
500,001–1,000,000	6	0.0	4,306,171	2.8
1,000,001 -	11	0.0	111,773,944	72.0
Total	33,345	100.0	155,342,557	100.0

LARGEST SHAREHOLDERS DECEMBER 31, 2019

	Shareholder	Number of shares	% of shares and votes
1	Oras Invest Ltd	31,278,217	20.1
2	Solidium Oy	15,782,765	10.2
3	Varma Mutual Pension Insurance Company	5,329,836	3.4
4	Ilmarinen Mutual Pension Insurance Company	4,118,851	2.7
5	Nordea Funds	2,558,202	1.7
6	Veritas Pension Insurance Company Ltd.	1,435,625	0.9
7	Oppiva Invest Oy	1,336,900	0.9
8	OP-Henkivakuutus Ltd.	1,262,134	0.8
9	Elo Mutual Pension Insurance Company	947,413	0.6
10	Säästöpankki Funds	946,672	0.6
11	Pohjola Fund Management	751,102	0.5
12	Nordea Life Insurance	730,166	0.5
13	Laakkonen Mikko Kalervo	600,000	0.4
14	The State Pension Fund	500,000	0.3
15	Paasikivi Pekka Johannes	434,000	0.3
	Kemira Oyj	2,693,111	1.7
	Nominee registered and foreign shareholders	49,593,969	31.9
	Others, Total	35,043,594	22.5
	Total	**155,342,557**	**100.0**

AGM DECISIONS

ANNUAL GENERAL MEETING

Kemira Oyj's Annual General Meeting was held on March 21, 2019 and confirmed the dividend of EUR 0.53. The dividend was paid out on April 5, 2019.

The AGM 2019 authorized the Board of Directors to decide on the repurchase of a maximum of 5,100,000 of the company's own shares ("Share Repurchase Authorization"). The Share Repurchase Authorization is valid until the end of the next Annual General Meeting. The Board had not exercised its authority by December 31, 2019.

The AGM 2019 also authorized the Board of Directors to decide to issue a maximum of 15,600,000 new shares and/or transfer a maximum of 7,800,000 of the company's own shares held by the company ("Share Issue Authorization"). The Share Issue Authorization is valid until May 31, 2020. The share issue authorization has been used, and shares owned by the Group were conveyed to members of the Board of Directors and key employees in connection with remuneration.

The AGM elected Ernst & Young Oy to serve as the company's auditor, with Mikko Rytilahti, Authorized Public Accountant, acting as the key audit partner.

PROPOSALS OF THE NOMINATION BOARD TO THE ANNUAL GENERAL MEETING 2020

The Nomination Board proposes to the Annual General Meeting of Kemira Oyj that seven members (previously six) be elected to the Board of Directors, and that the present members – Wolfgang Büchele, Shirley Cunningham, Kaisa Hietala, Timo Lappalainen, Jari Paasikivi and Kerttu Tuomas – be re-elected as members of the Board of Directors. The Nomination Board proposes that Werner Fuhrmann be elected as new member of the Board of Directors. In addition, the Nomination Board proposes that Jari Paasikivi be re-elected as the Chairman of the Board of Directors and Kerttu Tuomas be re-elected as the Vice Chairman.

All the nominees have given their consent to the position and are independent of the company's significant shareholders, except for Jari Paasikivi, who is the Chairman of the Board of Directors of Oras Invest Oy, which owns over 10% of Kemira Oyj's shares.

Werner Fuhrmann has extensive experience in the chemical industry in various positions at Akzo Nobel NV in 1979–2018. During 2012–2018, he was the CEO and Head of Akzo Nobel's Specialty Chemicals, and he retired from that position. Mr. Fuhrmann is an industrial advisor to private equity firms (among others at EQT Partners AB) and is a member of the Board of Ten Brinke Group. Werner Fuhrmann is a German citizen, and he has master's degree in economics from Mainz University.

The Nomination Board proposes that the remuneration paid to the members of the Board of Directors remain unchanged. The remuneration paid to the members of the Board of Directors would thus be as follows. The annual fees: for the Chairman EUR 92,000 per year, for the Vice Chairman and the Chairman of the Audit Committee EUR 55,000 per year, and for the other members EUR 44,000 per year. A fee payable for each meeting of the Board of Directors and the Board Committees would thus be as follows: EUR 600 for members residing in Finland, EUR 1,200 for members residing elsewhere in Europe, and EUR 2,400 for members residing outside Europe.

It is proposed that travel expenses be paid according to Kemira's travel policy.

In addition, the Nomination Board proposes to the Annual General Meeting that the annual fee be paid as a combination of the company's shares and cash in such a manner that 40% of the annual fee is paid in the company's shares owned by the company (or, if this is not possible, shares purchased from the market), and 60% is paid in cash. The shares will be transferred to the members of the Board of Directors and, if necessary, acquired directly on behalf of the members of the Board of Directors within two weeks from the release of Kemira's interim report January 1 – March 31, 2020. It is proposed that the meeting fees be paid in cash.

The Nomination Board has consisted of the following representatives: Annika Paasikivi (CEO of Oras Invest Oy) as the Chairman of the Nomination Board, Antti Mäkinen (CEO of Solidium Oy); Reima Rytsölä (Executive Vice-President, Varma Mutual Pension Insurance Company) and Mikko Mursula (Chief Investment Officer, Ilmarinen Mutual Pension Insurance Company) as members of the Nomination Board; and Jari Paasikivi (Chairman of Kemira's Board of Directors) as an expert member.

CORPORATE GOVERNANCE AND GROUP STRUCTURE

Kemira Oyj's corporate governance is based on the Articles of Association, the Finnish Companies Act, and Nasdaq Helsinki's rules and regulations on listed companies. Furthermore, the company complies with the Finnish Corporate Governance Code. The company's corporate governance is presented as a separate statement on the company's website.

BOARD OF DIRECTORS

On March 21, 2019, the Annual General Meeting elected six members to the Board of Directors. The Annual General Meeting re-elected Wolfgang Büchele, Shirley Cunningham, Kaisa Hietala, Timo Lappalainen, Jari Paasikivi, and Kerttu Tuomas as members of the Board of Directors. Jari Paasikivi was re-elected as the Board's Chairman and Kerttu Tuomas was re-elected as the Vice Chairman. In 2019, Kemira's Board of Directors met 9 times with a 96% attendance rate.

Kemira Oyj's Board of Directors has appointed two committees: the Personnel and Remuneration Committee and the Audit Committee. The Personnel and Remuneration Committee is chaired by Jari Paasikivi and has Timo Lappalainen and Kerttu Tuomas as members. In 2019, the Personnel and Remuneration Committee met 5 times with a 93% attendance rate. The Audit Committee is chaired by Timo Lappalainen and has Kaisa Hietala and Jari Paasikivi as members. In 2019, the Audit Committee met 5 times with a 100% attendance rate.

STRUCTURE

January 11, 2019 Kemira signed an agreement to establish a joint venture – Kemira Yongsan Chemicals Co., Ltd ("NewCo") in Ulsan, Republic of Korea, with Yongsan Chemicals, a privately-owned chemicals company in South Korea.

August 8, 2019 Kemira divested the entire share capital of Kemira Operon ("Operon"), a company providing water treatment plant operation services, to a newly established company called Operon Group Oy. In connection with this transaction, Operon Group will also acquire Aquazone and Suomen Ekolannoite, which will be merged into a new company. Pikespo Invest is the lead investor of the new company, and Kemira will own 10% of it.

SHORT-TERM RISKS AND UNCERTAINTIES

PRICE AND AVAILABILITY OF RAW MATERIALS AND COMMODITIES

Sufficient profitability is a crucial part of Kemira's strategy. Significant and sudden increase in the cost of raw materials, commodity, or logistics could place Kemira's profitability at risk if Kemira is not able to pass on such increases to product prices without delay. For instance, remarkable changes in oil and electricity prices could materially impact Kemira's profitability. Changes in the raw material supplier field, such as consolidation or decreasing capacity, may also increase raw material prices. Furthermore, significant demand changes in industries that are the main users of certain raw materials may lead to raw material price fluctuations. In 2019, the raw material cost escalations eased off after a longer period of significant continuous raw material cost increases. Especially the second half of 2019 was more stable. However, raw material prices continued to increase in parts of the business, and taking these into account, raw material sourcing remains in continuous focus.

Poor availability of certain raw materials may affect Kemira's production and also profitability if Kemira fails to prepare for this by mapping out alternative suppliers or opportunities for process changes. Raw material and commodity risks can be effectively monitored and managed with Kemira's centralized Sourcing Unit. Risk management measures include, for instance, forward-looking forecasting of key raw materials and commodities, synchronization of raw material purchase agreements and sales agreements, captive manufacturing of some of the critical raw materials, strategic investment in energy-generating companies, and hedging a portion of the energy and electricity spend. Kemira's joint venture with the fatty acid chloride producer Tiancheng in China is an example of helping to ensure the availability of key raw materials by backward integrating into the supply chain.

SUPPLIERS

The continuity of Kemira's business operations is dependent on accurate and good-quality supply of products and services. Kemira has currently in place numerous partnerships and other agreements with third-party product and service suppliers to secure its business continuity. Certain products used as raw materials are considered critical as the purchase can be made economically only from a sole or single source. In the event of a sudden and significant loss or interruption in such supply of raw material, Kemira's operations could be impacted, and this could have further negative effects on Kemira. Ineffective procurement planning, supply source selection, and contract administration, as well as inadequate supplier relationship management, create a risk of Kemira not being able to fulfill its promises to customers.

Kemira continuously aims to identify, analyze, and engage third-party suppliers in a way that ensures security of supply and competitive pricing of the end products and services. Collaborative relationships with key suppliers are developed in order to uncover and realize new value and reduce risk. Supplier performance is also regularly monitored as a part of the supplier performance management process. Due to the high risk environment related to suppliers of the chemical industry, risk management and mitigation in this area is of continuous high focus.

HAZARD RISKS

Kemira's production activities involve many hazard risks, such as fires and explosions, machinery breakdowns, natural catastrophes, exceptional weather conditions, environmental incidents, and the consequent possible resulting liabilities, as well as the employee health and safety risks. These risk events could derive from several factors, including also but not limited to unauthorized IT system access by malicious intruder causing possible damage to the systems and consequent financial losses. A systematic focus on achieving set targets, certified management systems, efficient hazard prevention programs, promotion of active safety culture, adequate maintenance, and competent personnel play a central role in managing these hazard risks. In addition, Kemira has several insurance programs that protect the company against financial impacts of hazard risks.

CHANGES IN CUSTOMER DEMAND

Significant unforeseen decline in the use of certain chemicals (e.g. chemicals for packaging and board production) or in the demand of customers' products and operations could have a negative impact on Kemira's business. Significant decline in certain raw material and utility prices (e.g. oil, gas, and metal) may shift customers' activities in areas where less chemicals are needed. Also, increased awareness of and concern about climate change and more sustainable products may change customer demands, for instance, in favor of water treatment technologies with lower chemical consumption. On the other hand, possible capacity expansions by customers could increase the chemical consumption and challenge Kemira's current production capacity.

In order to manage and mitigate this risk, Kemira systematically monitors leading and early warning indicators that focus on market development. Kemira has also continued to focus on the sustainability of its business and is further improving the coordination and cooperation between the Business Development, R&D, and Sales units in order to better understand the future needs and expectations of its customers. Timely capital investments as well as continuous discussions and follow-ups with customers ensure Kemira's ability to respond to changes in demand. Kemira's geographic and customer industry diversity also provides partial protection against the risk of changed customer demands.

ECONOMIC CONDITIONS AND GEOPOLITICAL CHANGES

Uncertainties in the global economic and geopolitical development are considered to include direct or indirect risks, such as a lower-growth period in the global GDP and possible unexpected trade-related political decisions, both of which could have unfavorable impacts on the demand for Kemira's products. Certain political actions or changes, especially in countries which are important to Kemira, could cause business interference or other adverse consequences. Current examples of these risks are related to Brexit and trade wars.

Weak economic development may result in customer closures or consolidations, resulting in a diminishing customer base. The liquidity of Kemira's customers could become weaker, resulting in increased credit losses for Kemira. Unfavorable market conditions may also increase the availability and price risk of certain raw materials. During the second half of 2019, some uncertainty regarding economic development was visible, which resulted in some changes in projected growth rates and expansions in cyclical businesses e.g. in parts of the Pulp & Paper market. The recent outbreak of corona virus in China and possible extended strikes in Finland could create near-term risks to customer demand, or our ability to run our operations.

Kemira's geographical and customer industry diversity provides only partial protection against these risks. Kemira continuously monitors geopolitical movements and changes and aims to adjust its business accordingly. For example, the Brexit related risk has been continuously monitored, and during 2018-2019 lots of preparations and actions were taken accordingly, and the risk has hence been mitigated. Trade war related risks are actively monitored and taken into account.

COMPETITION

Kemira operates in a rapidly changing and competitive business environment that represents a considerable risk to meeting its goals. New players seeking a foothold in Kemira's key business segments may use aggressive means as a competitive tool, which could affect Kemira's financial results. Major competitor or customer consolidations could change the market dynamics and possibly also change Kemira's market position.

Kemira is seeking growth in product categories that are less familiar and where new competitive situations prevail. In the long-term, completely new types of technology may considerably change the current competitive situation. This risk is managed both at Group and segment levels through continuous monitoring of the competition. The company aims at responding to its competition with the active management of customer relationships and continuous development of its products and services to further differentiate itself from the competitors and be competitive.

ACQUISITIONS

Acquisitions are one potential way to reach corporate goals and strategies, in addition to organic growth. Consolidations are driven by chemical manufacturers' interests in realizing synergies and establishing footholds in new markets. However, the integration as such of acquired businesses, operations, and personnel also involves risks. If integration is unsuccessful, results may fall short of targets for such acquisitions.

Kemira has created M&A procedures and established Group level-dedicated resources to actively manage merger and acquisition activities and to support the execution of its business transactions. In addition, external advisory services are being used to screen potential merger and acquisition targets and to help execute transactions and post-merger integration.

INNOVATION AND R&D

Kemira's Research and Development is a critical enabler for organic growth and further differentiation. Kemira's future market position and profitability depend on its ability to understand and meet current and future customer needs and market trends, and its ability to innovate new differentiated products and applications. Furthermore, new product launches contribute to the efficiency and sustainability of Kemira's or its customers' processes, as well as to the improved profitability. Failure to innovate or focus on new disruptive technologies and products, or to efficiently commercialize new products or service concepts may result in non-achievement of growth targets.

Innovation and R&D related risks are being managed through efficient R&D portfolio management in close collaboration between R&D and the two business segments. There is close coordination and cooperation between Business Development, R&D, Sales and Marketing units in order to better understand the future needs and expectations of Kemira's customers. With continuous development of innovation processes Kemira aims towards more stringent project execution. Kemira maintains increased focus towards the development of more differentiated and sustainable products and processes, and is also continuously monitoring sales of its new products and applications.

CHANGES IN LAWS AND REGULATIONS

Kemira's business is subject to various laws and regulations, which have relevance in the development and implementation of Kemira's strategy. Laws and regulations can generally be considered as an opportunity for Kemira as regulation drives for example the treatment of water. However, certain legislative initiatives supporting, for instance, the use of biodegradable raw materials or biological water treatment, limiting the use of aluminum, may also have a negative impact on Kemira's business. Significant changes, for instance, also in chemical, environmental or transportation laws and regulations may impact Kemira's profitability through an increase in production and transportation costs. At the same time, such changes may also create new business opportunities for Kemira.

Inclusion of new substances into the REACH authorization process may also bring further requirements to Kemira, where failure to obtain the relevant authorization could impact Kemira's business. In addition, the changes in import/export and customs-related regulation create needs for monitoring and mastering global trade compliance in order to ensure for instance, compliant product importation.

Kemira continuously follows regulatory developments in order to maintain the awareness of proposed and upcoming changes of those laws and regulations which may have an impact, for instance, on its sales, production, and product development needs. Kemira has established an internal process to manage substances of potential concern and to create management plans for them. These plans cover, for example, the possibilities to replace certain substances if those would be subject to stricter regulation. Kemira has also increased the focus and resources in the management of global trade compliance.

Regulatory effects are also systematically taken into consideration in strategic decision making. Kemira takes an active role in regulatory discussions whenever justified from the perspective of the industry or business. Currently, for example, there is lots of regulatory discussions ongoing in the EU as the EU is undergoing a major review of its water legislation and directives. This may have a positive demand related impact for Kemira, due to the need for water to be treated more carefully.

TALENT MANAGEMENT

To secure competitiveness and growth, as well as to improve operational efficiency, it is essential to attract and retain personnel with the right skills and competences (e.g. R&D, sales, IT, customer service and marketing competence). Kemira is continuously identifying high potentials and key competencies for future needs. By systematic development and improvement of compensation schemes, learning programs, and career development programs, Kemira aims to ensure the continuity of skilled personnel also in the future.

A detailed account of the Kemira's risk management principles is available on the company's website at **www.kemira.com**. Financial risks are also described in the Notes to the Financial Statements.

DIVIDEND AND DIVIDEND POLICY

On December 31, 2019, Kemira Oyj's distributable funds totaled EUR 848,948,241 of which net profit for the period was EUR 93,521,333. No material changes have taken place in the company's financial position after the balance sheet date.

Kemira Oyj's Board of Directors proposes to the Annual General Meeting to be held on March 25, 2020 that a dividend of EUR 0.56 per share totaling EUR 85 million shall be paid on the basis of the adopted balance sheet for the financial year ended December 31, 2019. The dividend will be paid in two installments. The first installment of EUR 0.28 per share will be paid to a shareholder who is registered in the company's shareholder register maintained by Euroclear Finland Oy on the record date for the dividend payment, March 27, 2020. The Board of Directors proposes that the first installment of the dividend be paid out on April 7, 2020. The second installment of EUR 0.28 per share will be paid in November 2020. The second installment will be paid to a shareholder who is registered in the company's shareholder register maintained by Euroclear Finland Oy on the record date for the dividend payment. The Board of Directors will decide the record date and the payment date for the second installment at the meeting scheduled for October 26, 2020. According to the current rules of Euroclear Finland, the record date would then be October 28, 2020, and the dividend payment date November 4, 2020, at the earliest.

Kemira's dividend policy aims to pay a stable and competitive dividend.

*Previously Kemira referred to these three financial targets as mid-to-long term financial targets, but will refer to them only as financial targets going forward.

OUTLOOK FOR 2020

Kemira expects its operative EBITDA (2019: EUR 410 million) to increase from the prior year.

FINANCIAL TARGETS*

Kemira aims for above-market revenue growth with an operative EBITDA margin of 15-17%. The target for gearing is below 75%.

Helsinki, February 10, 2020
Kemira Oyj
Board of Directors

All forward-looking statements in this review are based on the management's current expectations and beliefs about future events, and actual results may differ materially from the expectations and beliefs such statements contain.

Kemira

Consolidated Income Statement

		Year ended 31 December	
EUR million	**Note**	**2019**	**2018**
Revenue	2.1.	2,658.8	2,592.8
Other operating income	2.2.	6.4	14.8
Operating expenses	2.2.	-2,283.0	-2,292.8
Share of the results of associates	6.2.	0.0	0.0
EBITDA		382.3	314.8
Depreciation, amortization and impairments	2.4.	-187.9	-166.6
Operating profit (EBIT)		194.4	148.2
Finance income	2.5.	3.9	8.6
Finance expenses	2.5.	-42.2	-33.4
Exchange differences	2.5.	-1.4	-0.1
Finance costs, net	2.5.	-39.7	-25.0
Profit before tax		154.7	123.3
Income taxes	2.6.	-38.2	-28.1
Net profit for the period		116.5	95.2
Net profit attributable to			
Equity owners of the parent company		110.2	89.1
Non-controlling interests	6.2.	6.3	6.1
Net profit for the period		116.5	95.2
Earnings per share for net profit attributable to the equity owners of the parent company, EUR			
Basic	2.7.	0.72	0.58
Diluted	2.7.	0.72	0.58

The above Consolidated Income Statement should be read in conjunction with the accompanying notes.

Consolidated Comprehensive Income

		Year ended 31 December	
EUR million	**Note**	**2019**	**2018**
Net profit for the period		116.5	95.2
Other comprehensive income			
Items that may be reclassified subsequently to profit or loss			
Exchange differences in translating foreign operations		7.8	0.2
Cash flow hedges		-15.0	17.5
Items that will not be reclassified subsequently to profit or loss			
Other shares		13.4	-5.9
Remeasurements of defined benefit plans		-5.4	10.1
Other comprehensive income for the period, net of tax	2.8.	0.7	21.8
Total comprehensive income for the period		117.2	117.0
Total comprehensive income attributable to			
Equity owners of the parent company		110.7	111.4
Non-controlling interests	6.2.	6.5	5.6
Total comprehensive income for the period		117.2	117.0

Items in the Consolidated Statement of Comprehensive Income are disclosed net of tax. The income tax relating to each component of other comprehensive income is disclosed in Note 2.8. Other comprehensive income.

The above Consolidated Comprehensive Income should be read in conjunction with the accompanying notes.

Consolidated Balance Sheet

		As at 31 December	
EUR million	Note	2019	2018
ASSETS			
NON-CURRENT ASSETS			
Goodwill	3.1.	515.8	512.5
Other intangible assets	3.2.	95.5	128.6
Property, plant and equipment	3.3.	1,005.1	938.3
Right-of-use assets [1)]	3.4.	136.2	0.0
Investments in associates	6.2.	2.8	0.7
Other shares	3.5.	245.2	228.4
Deferred tax assets	4.4.	35.7	28.2
Other investments	5.4.	2.0	2.3
Receivables of defined benefit plans	4.5.	51.8	61.8
Total non-current assets		2,090.1	1,900.7
CURRENT ASSETS			
Inventories	4.1.	260.6	283.8
Interest-bearing receivables	4.2.	0.2	0.2
Trade receivables and other receivables	4.2.	378.8	420.2
Current income tax assets		18.2	13.9
Cash and cash equivalents	5.4.	143.1	144.9
Total current assets		800.9	863.1
Total assets		2,891.0	2,763.8

1) From 2019 onwards, right-of-use assets in accordance with IFRS 16 Leases have been disclosed on a separate line in the balance sheet.

The above Consolidated Balance Sheet should be read in conjunction with the accompanying notes.

		As at 31 December	
EUR million	Note	2019	2018
EQUITY AND LIABILITIES			
EQUITY			
Equity attributable to equity owners of the parent company			
Share capital		221.8	221.8
Share premium		257.9	257.9
Fair value and other reserves		108.5	110.2
Unrestricted equity reserve		196.3	196.3
Translation differences		-39.5	-47.1
Treasury shares		-18.1	-19.1
Retained earnings		490.9	469.6
Total equity attributable to equity owners of the parent company	5.2.	1,217.7	1,189.6
Non-controlling interests	6.2.	13.3	12.9
Total equity		1,231.0	1,202.5
NON-CURRENT LIABILITIES			
Interest-bearing liabilities	5.3.	737.9	646.3
Other liabilities	5.4.	8.3	29.0
Deferred tax liabilities	4.4.	67.8	71.1
Liabilities of defined benefit plans	4.5.	93.3	81.2
Provisions	4.6.	29.1	29.6
Total non-current liabilities		936.4	857.3
CURRENT LIABILITIES			
Interest-bearing liabilities	5.3.	216.6	240.0
Trade payables and other liabilities	4.3.	455.7	439.1
Current income tax liabilities		28.7	15.6
Provisions	4.6.	22.6	9.2
Total current liabilities		723.6	703.9
Total liabilities		1,660.0	1,561.2
Total equity and liabilities		2,891.0	2,763.8

Kemira

Consolidated Statement of Cash Flow

EUR million	Note	2019	2018
CASH FLOW FROM OPERATING ACTIVITIES			
Net profit for the period		116.4	95.2
Adjustments for			
Depreciation, amortization and impairments	2.4.	187.9	166.6
Income taxes	2.6.	38.2	28.1
Finance costs, net	2.5.	39.7	25.0
Share of the results of associates	6.2.	0.0	0.0
Other adjustments [1]		36.0	0.0
Cash flow before change in net working capital		418.3	314.8
Change in net working capital			
Increase (-) / decrease (+) in inventories		19.4	-64.7
Increase (-) / decrease (+) in trade and other receivables		20.5	8.5
Increase (+) / decrease (-) in trade payables and other liabilities		5.5	5.1
Change in net working capital		45.3	-51.1
Cash flow from operations before financing items and taxes		463.5	263.7
Interests paid		-35.2	-26.9
Interests received		3.4	3.7
Other finance items, net		-6.7	-6.8
Dividends received		0.0	0.1
Income taxes paid		-38.8	-23.6
Net cash generated from operating activities		386.2	210.2

1) Other adjustments relate mainly to surplus return of EUR 15 million paid by Pension Fund Neliapila and non-cash adjustments in provisions.

2) From 2019 onwards, payments for lease liabilities in accordance with IFRS 16 Leases are disclosed in the cash flow from financing activities and interest related to these is included in cash flows from operating activities. In 2018, the lease payments in accordance with IAS 17 were fully disclosed in the cash flow from operating activities. However, the adoption of IFRS 16 has no impact on the last line of the cash flow statement, net increase / decrease in cash and cash equivalents.

The above Consolidated Statement of Cash Flow should be read in conjunction with the accompanying notes.

EUR million	Note	2019	2018
CASH FLOW FROM INVESTING ACTIVITIES			
Purchases of subsidiaries and asset acquisitions, net of cash acquired		0.0	-43.3
Capital expenditure in associated company		-2.7	0.0
Capital expenditure in property, plant and equipment and intangible assets		-201.1	-150.4
Decrease (+) / increase (-) in loan receivables		0.1	5.2
Proceeds from sale of subsidiaries, net of cash disposed		4.5	2.5
Proceeds from sale of associates and paid-in-capital from associates		0.0	4.3
Proceeds from sale of other shares and capital repayments		0.0	0.2
Proceeds from sale of property, plant and equipment, and intangible assets		3.2	0.3
Net cash used in investing activities		-196.3	-181.3
CASH FLOW FROM FINANCING ACTIVITIES			
Proceeds from non-current interest-bearing liabilities (+)	5.1.	40.1	96.2
Repayments of non-current interest-bearing liabilities (-)	5.1.	-110.3	-69.2
Repayments of non-current non-interest-bearing liabilities (-)		-10.7	0.0
Short-term financing, net increase (+) / decrease (-)	5.1.	2.9	10.3
Repayments of lease liabilities [2]		-28.4	0.0
Dividends paid		-86.9	-87.3
Net cash used in financing activities		-193.2	-50.1
Net increase (+) / decrease (-) in cash and cash equivalents		-3.4	-21.1
Cash and cash equivalents on Dec 31		143.1	144.9
Exchange gains (+) / losses (-) in cash and cash equivalents		1.5	-0.1
Cash and cash equivalents on Jan 1		144.9	166.1
Net increase (+) / decrease (-) in cash and cash equivalents		-3.4	-21.1

Kemira

Consolidated Statement of Changes in Equity

	Equity attributable to equity owners of the parent company									
EUR million	Share capital	Share premium	Fair value and other reserves	Unrestricted equity reserve	Exchange differences	Treasury shares	Retained earnings	Total	Non-controlling interests	Total equity
Equity on January 1, 2019	221.8	257.9	110.2	196.3	-47.1	-19.1	469.6	1,189.6	12.9	1,202.5
Equity on January 1, Change in accounting policy (IFRS 16) [1]	—	—	—	—	—	—	-4.9	-4.9	—	-4.9
Restated equity on January 1, 2018	221.8	257.9	110.2	196.3	-47.1	-19.1	464.7	1,184.7	12.9	1,197.6
Net profit for the period	—	—	—	—	—	—	110.2	110.2	6.3	116.5
Other shares	—	—	13.3	—	—	—	0.1	13.4	—	13.4
Exchange differences in translating foreign operations	—	—	—	—	7.6	—	—	7.6	0.2	7.8
Cash flow hedges	—	—	-15.0	—	—	—	—	-15.0	—	-15.0
Remeasurements of defined benefit plans	—	—	—	—	—	—	-5.4	-5.4	—	-5.4
Total comprehensive income	—	—	-1.7	—	7.6	—	104.9	110.7	6.5	117.2
Transactions with owners										
Dividends paid	—	—	—	—	—	—	-80.9	-80.9	-6.0	-86.9
Treasury shares issued to the target group of a share-based incentive plan	—	—	—	—	—	1.0	—	1.0	—	1.0
Treasury shares issued to the Board of Directors	—	—	—	—	—	0.1	—	0.1	—	0.1
Treasury shares returned	—	—	—	—	—	-0.1	—	-0.1	—	-0.1
Share-based payments	—	—	—	—	—	—	2.2	2.2	—	2.2
Total transactions with owners	—	—	—	—	—	1.0	-78.7	-77.1	-6.0	-83.7
Equity on December 31, 2019	221.8	257.9	108.5	196.3	-39.5	-18.1	490.9	1,217.7	13.3	1,231.0

1) On January 1, 2019, Kemira adopted IFRS 16 Leases standard. As a result of adopting IFRS 16, retained earnings in equity were adjusted by EUR -4.9 million. More information on the impact of the IFRS 16 adoption can be found in this Consolidated Financial Statement on Note 1. Group's Accounting Policies section.

Kemira

	Equity attributable to equity owners of the parent company									
EUR million	Share capital	Share premium	Fair value and other reserves	Unrestricted equity reserve	Exchange differences	Treasury shares	Retained earnings	Total	Non-controlling interests	Total equity
Equity on January 1, 2018	221.8	257.9	98.7	196.3	-47.7	-20.1	452.1	1,159.0	13.8	1,172.8
Change in accounting policy (IFRS 9 and IFRS 2) [2)]	—	—	—	—	—	—	-0.2	-0.2	—	-0.2
Restated equity on January 1, 2018	221.8	257.9	98.7	196.3	-47.7	-20.1	451.9	1,158.8	13.8	1,172.6
Net profit for the period	—	—	—	—	—	—	89.1	89.1	6.1	95.2
Other shares	—	—	-5.9	—	—	—	—	-5.9	—	-5.9
Exchange differences in translating foreign operations	—	—	—	—	0.6	—	—	0.6	-0.4	0.2
Cash flow hedges	—	—	17.5	—	—	—	—	17.5	—	17.5
Remeasurements of defined benefit plans	—	—	—	—	—	—	10.1	10.1	—	10.1
Total comprehensive income	—	—	11.5	—	0.6	—	99.3	111.4	5.6	117.0
Transactions with owners										
Dividends paid	—	—	—	—	—	—	-80.8	-80.8	-6.5	-87.3
Treasury shares issued to the target group of a share-based incentive plan	—	—	—	—	—	1.0	—	1.0	—	1.0
Treasury shares issued to the Board of Directors	—	—	—	—	—	0.1	—	0.1	—	0.1
Treasury shares returned	—	—	—	—	—	0.0	—	0.0	—	0.0
Share-based payments	—	—	—	—	—	—	-0.8	-0.8	—	-0.8
Total transactions with owners	—	—	—	—	—	1.1	-81.6	-80.5	-6.5	-87.0
Equity on December 31, 2018	221.8	257.9	110.2	196.3	-47.1	-19.1	469.6	1,189.6	12.9	1,202.5

[2)] Kemira adopted IFRS 15 Revenue from Contracts with Customers and IFRS 9 Financial Instruments standards and the amendments to the IFRS 2 Share-based Payments standard. As a result of the changes in the standards, retained earnings in equity were adjusted on January 1, 2018. The IFRS 15 standard did not change Kemira's revenue recognition principles and thus did not result in any adjustments in retained earnings. IFRS 9 standard mainly impacts Kemira's valuation of loan receivables and credit losses and recognition of trade receivables. Due to the change in the accounting policy, retained earnings were adjusted for a total of EUR -1.0 million. When adopting the amendments to the IFRS 2 standard, Kemira classified share-based payment arrangements as equity-settled in its entirety and reclassified the liability related to the share-based payment arrangement in the retained earnings in equity. As a result of the change in the accounting policy, an adjustment of EUR 0.8 million has been recognized in the retained earnings. The total effect on equity from loan receivables, trade receivables and share-based payments is EUR -0.2 million including the deferred tax effect.

The above Consolidated Statement of Changes in Equity should be read in conjunction with the accompanying notes.

1. THE GROUP'S ACCOUNTING POLICIES FOR THE CONSOLIDATED FINANCIAL STATEMENTS

GROUP PROFILE

Kemira is a global chemicals company serving customers in water-intensive industries. The company provides expertise in applications and chemicals that improve customers' efficient use of water, energy and raw materials. Kemira's two segments Pulp & Paper and Industry & Water focus on customers in the pulp & paper, oil & gas, mining and water treatment industries respectively.

The Group's parent company is Kemira Oyj, domiciled in Helsinki, Finland, and its registered address is Energiakatu 4, FI-00180 Helsinki, Finland. The parent company's shares are listed on Nasdaq Helsinki Oy. A copy of the Consolidated Financial Statements is available at **www.kemira.com** or at Energiakatu 4, FI-00180 Helsinki, Finland.

The Board of Directors of Kemira Oyj has approved the Financial Statements for publication at its meeting on February 10, 2020. Under the Finnish Limited Liability Companies Act, the shareholders may accept or reject the Financial Statements at the General Meeting of Shareholders held after their publication. The meeting also has the power to make a decision to amend the Financial Statements.

BASIS OF PREPARATION FOR THE CONSOLIDATED FINANCIAL STATEMENTS

The Group has prepared its Consolidated Financial Statements in accordance with International Financial Reporting Standards (IFRS) and its interpretations (IFRIC), adopted by the European Union. The consolidated financial statements have been prepared in accordance with IFRS standards and IFRIC Interpretations effective on December 31, 2019. The Notes to the Consolidated Financial Statements also comply with the requirements of the Finnish accounting and corporate legislation that supplement the IFRS regulations.

The Consolidated Financial Statements are presented in EUR million and have been prepared based on the historical cost, except for the items measured at fair value through other comprehensive income including unlisted PVO/TVO shares, financial assets and liabilities at fair value through profit or loss, and share-based payments on the grant date.

All individual figures presented in the Consolidated Financial Statements have been rounded to the nearest exact figure. Therefore, the sum of the individual figures may deviate from the sum figure presented in the Consolidated Financial Statements. The key figures are calculated using exact values.

NEW, AMENDED IFRS STANDARDS AND IFRIC INTERPRETATIONS INTO EFFECTIVE IN 2019

The group has applied the following standards and amendments for the first time for its annual reporting period commencing 1 January 2019:
- IFRS 16 Leases
- Prepayment Features with Negative Compensation – Amendments to IFRS 9
- Long-term Interests in Associates and Joint Ventures – Amendments to IAS 28
- Annual Improvements to IFRS Standards 2015 – 2017 Cycle
- Plan Amendment, Curtailment or Settlement – Amendments to IAS 19
- IFRIC 23 Uncertainty over Income Tax Treatments

The Group has changed its accounting policies as a result of adopting IFRS 16. This is disclosed below in section IFRS 16 Leases and in note 3.4. The other amendments listed above did not have any impact on the amounts recognized in prior periods and are not expected to significantly affect the next financial period.

Certain new accounting standards and interpretations have been published. These are not mandatory for reporting periods ending December 31, 2019 and have not been early adopted by the Group. These amendments are not expected to have a material impact on the Group in the next financial period.

IFRS 16 Leases

The Group adopted IFRS 16 standard on January 1, 2019 using a modified retrospective approach, having the right-of-use asset as being equal to lease liability. The reclassifications and adjustments arising from IFRS 16 were recognized in the opening balance on January 1, 2019. The comparative figures were not restated on date of transition to IFRS 16. In 2019, the key figures (except revenue and capital expenditure) of Income Statements, Balance Sheet and cash flow have been impacted by the adoption of the IFRS 16.

The Group elected to apply the practical expedients of IFRS 16 within its accounting policy and has excluded short-term leases, with a lease term less than 12 months, and leases of low value. The Group mainly leases land area, buildings and transportation equipment. Lease contracts are typically for fixed periods and some contracts have options to extend the lease period. The extension option is included in the IFRS 16 lease liability if it is reasonably certain that the option will be exercised.

On the transition date of January 1, 2019, IFRS 16 lease liabilities were measured at the present value of the remaining lease payments using incremental borrowing rates (IBR) as discount rate determined by Kemira. The weighted-average IBR for IFRS 16 lease liabilities was 5.1%. The following table presents a bridge calculation of lease liabilities from leases under IAS 17 operating leases to the IFRS 16 leases:

RECONCILIATION CALCULATION OF LEASE LIABILITY

EUR million	
Operating lease commitments under IAS 17 on December 31, 2018	205
Short-term leases	-6
Low value leases	-3
Other items	-11
Total	-20
Discounting impact	-59
Lease liability under IFRS 16 recognized on January 1, 2019	126

The IFRS 16 impact on the opening balance sheet as of January 1, 2019 is presented in the calculation.

CONSOLIDATED BALANCE SHEET

EUR million	31.12.2018	IFRS 16 impact	Opening balance sheet 1.1.2019
ASSETS			
Non-current assets			
Goodwill	512.5		512.5
Other intangible assets	128.6	-10.6	118.0
Property, plant and equipment	938.3		938.3
Right-of-use assets	0.0	129.3	129.3
Investments in associates	0.7		0.7
Other shares	228.4		228.4
Deferred tax assets	28.2		28.2
Other investments	2.3		2.3
Receivables of defined benefit plans	61.8		61.8
Total non-current assets	1,900.7	118.7	2,019.4
Current assets			
Inventories	283.8		283.8
Interest-bearing receivables	0.2		0.2
Trade receivables and other receivables	420.2	-0.7	419.5
Current income tax assets	13.9		13.9
Cash and cash equivalents	144.9		144.9
Total current assets	863.1	-0.7	862.4
Total assets	2,763.8	118.0	2,881.8

EUR million	31.12.2018	IFRS 16 impact	Opening balance sheet 1.1.2019
EQUITY AND LIABILITIES			
Equity			
Equity attributable to equity owners of the parent	1,189.6	-4.9	1,184.7
Non-controlling interests	12.9		12.9
Total equity	1,202.5	-4.9	1,197.6
Non-current liabilities			
Interest-bearing liabilities	646.3	104.5	750.8
Other liabilities	29.0		29.0
Deferred tax liabilities	71.1	-1.0	70.1
Liabilities of defined benefit plans	81.2		81.2
Provisions	29.6	-1.0	28.6
Total non-current liabilities	857.3	102.5	959.8
Current liabilities			
Interest-bearing liabilities	240.0	21.8	261.8
Trade payables and other liabilities	439.1	-1.4	437.7
Current income tax liabilities	15.6		15.6
Provisions	9.2		9.2
Total current liabilities	703.9	20.4	724.3
Total liabilities	1,561.2	122.9	1,684.1
Total equity and liabilities	2,763.8	118.0	2,881.8

CONSOLIDATION PRINCIPLES OF SUBSIDIARIES AND NON-CONTROLLING INTERESTS

The Consolidated Financial Statements include the parent company and its subsidiaries. Subsidiaries are all entities that the Group has control over (voting rights generally being over 50 percent). The Group controls an entity when the Group is exposed to, or has rights to, variable returns from its involvement with the entity, and when it has the ability to affect those returns through its power over the entity. Subsidiaries are fully consolidated from the date on which control is transferred to the Group. They are de-consolidated from the date on which this control ceases.

All intra-group transactions are eliminated. Intra-group shareholdings are eliminated using the acquisition method. The consideration transferred for acquisition of a subsidiary is defined as an aggregate of the fair values of the assets transferred, the liabilities assumed and the equity interest issued by the Group. The consideration transferred may include the fair value of any asset or liability resulting from the contingent consideration arrangement. Acquisition-related costs are expensed as incurred. Identifiable assets acquired, and liabilities and contingent liabilities that are assumed in a business combination are measured at their fair values on the acquisition date. On an acquisition-by-acquisition basis, the Group recognizes any non-controlling interest in the acquiree either at fair value or at the non-controlling interest's proportionate share of the acquiree's net assets.

The amount that exceeds the aggregate of consideration transferred, the amount of any non-controlling interest in the acquiree and the acquisition-date fair value of any previous equity interest in the acquiree over the fair value of the Group's share of the net assets acquired is recognized as goodwill in the Balance Sheet. If this is less than the fair value of the net assets of the subsidiary acquired by bargain purchase, the difference is recognized directly in the Income Statement.

Net profit or loss for the financial year and other comprehensive income attributable to the equity holders of the parent and non-controlling interests are presented in the Income Statement and in the Statement of Comprehensive Income. The portion of equity attributable to non-controlling interests is stated as an individual item separately from the equity to the equity holders of the parent company. Total comprehensive income shows separately the total amounts attributable to the equity holders of the parent company and to non-controlling interests. The Group recognizes negative non-controlling interests, unless the non-controlling interest does not have a binding obligation to cover the losses up to the amount of their investment.

If the parent company's ownership interest in the subsidiary is reduced but control is retained, then the transactions are treated as equity transactions. When the Group ceases to have control or significant influence, any retained interest in the entity is remeasured at its fair value, and the difference is recognized as profit or loss.

ASSOCIATES

Associated companies are companies over which the Group exercises significant influence (voting rights generally being 20–50 percent), but not control. Holdings in associated companies are consolidated using the equity method. If the Group's share of the associate's losses exceeds the carrying amount of the investment, the exceeding losses will not be consolidated unless the Group has a commitment to fulfill the obligations on behalf of the associate. The Group's share of the associated companies' net profit for the financial year is stated as a separate item in the consolidated Income Statement in operating profit, in proportion to the Group's holdings. The Group's share of the movements of its associates in other comprehensive income is recognized in the Group's other comprehensive income.

FOREIGN CURRENCY TRANSLATION

Items included in the financial statements of each of the Group's entities are measured by using the currency of the primary economic environment in which the entity operates (the functional currency). The Consolidated Financial Statements are presented in EUR, which is the Group's presentation currency and the parent company's functional and presentation currency.

In the Consolidated Financial Statements, the Income Statements of foreign subsidiaries are translated into EUR using the financial year's average foreign currency exchange rates, and the balance sheets are translated using the exchange rates quoted on the balance sheet date. Translating the net profit for the period using different exchange rates in the Income Statement and in the balance sheet causes a translation difference recognized as equity on the Balance Sheet. The change in this translation difference is presented under other comprehensive income. Goodwill and fair value adjustments to the carrying amounts of the assets and liabilities that arise from the acquisition of a foreign entity are accounted for as part of the assets and liabilities of the foreign entity, and are translated into EUR at the rate quoted on the balance sheet date.

Translation differences in the loans granted to some foreign subsidiaries are treated as an increase or decrease in other comprehensive income. When the Group ceases to have control over a subsidiary, the accumulated translation difference is transferred into the Income Statement as part of the gain or loss on the sale.

In their day-to-day accounting, the Group companies translate foreign currency transactions into their functional currency at the exchange rates quoted on the transaction date. In the Financial Statements, foreign currency denominated receivables and liabilities are measured at the exchange rates quoted on the balance sheet date. Non-monetary items are measured using the rates quoted on the transaction date. Any foreign exchange gains and losses related to business operations are treated as adjustments to sales and purchases. Exchange rate differences associated with financing transactions and the hedging of the Group's overall foreign currency position are stated in foreign exchange gains or losses under finance income and expenses.

THE ITEMS IN THE FINANCIAL STATEMENTS THAT INCLUDE ACCOUNTING ESTIMATES AND ACCOUNTING POLICIES THAT REQUIRE JUDGMENT

When preparing Consolidated Financial Statements in accordance with IFRS, the management is required to make accounting estimates and assumptions concerning the future. The resulting accounting estimate will seldom be equal to the actual results. In addition, management is required to exercise judgment when applying the accounting policies.

Estimates and assumptions are continuously evaluated, and are based on past experience and expectations of future events that may have financial implications and are considered to be reasonable under the circumstances.

The following table discloses items in the financial statements that include significant accounting estimates and the related notes, which discloses the accounting policies applied in the items and the sensitivity analysis of the items. These items that include accounting estimates are subject to a risk of changes in the carrying amount of assets and liabilities during the next financial period.

The items in the Financial Statements	Note in the Financial Statements
Goodwill	3.1. Goodwill
Fair value of shares in the PVO Group	3.5. Other shares
Deferred taxes and uncertain tax positions	2.6. Income taxes and 4.4. Deferred tax liabilities and assets
Defined benefit pension plans	4.5. Defined benefit pension plans and employee benefits
Provisions	4.6. Provisions

2. FINANCIAL PERFORMANCE

2.1 SEGMENT INFORMATION

Kemira's organization consists of two segments: Pulp & Paper and Industry & Water.

Pulp & Paper

Pulp & Paper has expertise in applying chemicals and supporting pulp & paper producers in innovating and constantly improving their operational efficiency. The segment develops and sells products to fulfill customer needs, ensuring the leading portfolio of products and services for paper wet-end, focusing on packaging and board, as well as tissue products.

Industry & Water

Industry & Water supports municipalities and water intensive industries in the efficient and sustainable utilization of resources. In water treatment, the segment helps in the optimization of every stage of the water cycle. In the oil and gas industry, the segment helps to improve yield from existing reserves and reduce water and energy use.

ALTERNATIVE PERFORMANCE MEASURES

Kemira provides certain financial performance measures (alternative performance measures), which are not defined by IFRS. Kemira believes that alternative performance measures followed by capital markets and Kemira management, such as organic growth*, EBITDA, operative EBITDA, cash flow after investing activities as well as gearing, provide useful information about Kemira's comparable business performance and financial position. Selected alternative performance measures are also used as performance criteria in remuneration.

Kemira's alternative performance measures should not be viewed in isolation to the equivalent IFRS measures and alternative performance measures should be read in conjunction with the most directly comparable IFRS measures. Definitions of the key figures is disclosed in the section on the Definitions of key figures.

* Revenue growth in local currencies, excluding acquisitions and divestments.

INCOME STATEMENT ITEMS

2019, EUR million	Pulp & Paper	Industry & Water	Group
Revenue [1]	1,552.9	1,135.9	2,658.8
EBITDA [2]	192.4	189.9	382.3
Depreciation, amortization and impairments	-119.0	-68.9	-187.9
Share of the results of associates	0.0	0.0	0.0
Operating profit (EBIT) [2]	73.4	121.0	194.4
Finance costs, net			-39.7
Profit before tax			154.7
Income taxes			-38.2
Net profit for the period			116.5

1) Revenue consists mainly of sales of products to external customers, and there is no internal sales between the segments.

2) Includes items affecting comparability.

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ITEMS AFFECTING COMPARABILITY IN EBITDA AND EBIT

2019, EUR million	Pulp & Paper	Industry & Water	Group
Operative EBITDA	218.3	191.7	410.0
Restructuring and streamlining programs			-13.5
Transaction and integration expenses in acquisitions			2.2
Divestment of businesses and other disposals			0.9
Other items			-17.2
Total items affecting comparability	-25.8	-1.8	-27.7
EBITDA	192.4	189.9	382.3
Operative EBIT	99.2	124.7	224.0
Items affecting comparability in EBITDA	-25.8	-1.8	-27.7
Items affecting comparability in depreciation, amortization and impairments	0.0	-1.9	-1.9
Operating profit (EBIT)	73.4	121.0	194.4

Quarterly information on items affecting comparability is disclosed in the section on Reconciliation of IFRS figures.

BALANCE SHEET ITEMS

2019, EUR million	Pulp & Paper	Industry & Water	Group
Segment assets	1,509.6	873.3	2,383.0
Reconciliation to total assets as reported in the Group balance sheet:			
Other shares			245.2
Deferred income tax assets			35.7
Other investments			2.0
Defined benefit pension receivables			51.8
Other assets			30.2
Cash and cash equivalents			143.1
Total assets			2,891.0
Segment liabilities	241.0	175.9	416.9
Reconciliation to total liabilities as reported in the Group balance sheet:			
Interest-bearing non-current financial liabilities			737.9
Interest-bearing current financial liabilities			216.6
Other liabilities			288.6
Total liabilities			1,660.0

OTHER ITEMS

2019, EUR million	Pulp & Paper	Industry & Water	Group
Capital employed by segments on Dec 31	1,268.6	697.4	1,966.0
Capital employed by segments, 12-month rolling average	1,289.4	708.2	1,998.2
Operative ROCE, %	7.7	17.6	11.2
Capital expenditure	112.5	91.7	204.1

INCOME STATEMENT ITEMS

2018, EUR million	Pulp & Paper	Industry & Water	Group
Revenue [1)]	1,520.2	1,072.6	2,592.8
EBITDA [2)]	187.8	127.0	314.8
Depreciation, amortization and impairments	-108.0	-58.6	-166.6
Share of the results of associates	0.0	0.0	0.0
Operating profit (EBIT) [2)]	79.8	68.5	148.2
Finance costs, net			-25.0
Profit before tax			123.3
Income taxes			-28.1
Net profit for the period			95.2

1) Revenue consists mainly of sales of products to external customers, and there is no internal sales between the segments.
2) Includes items affecting comparability.

ITEMS AFFECTING COMPARABILITY IN EBITDA AND EBIT

2018, EUR million	Pulp & Paper	Industry & Water	Group
Operative EBITDA	191.7	131.5	323.1
Restructuring and streamlining programs			-8.9
Transaction and integration expenses in acquisitions			2.8
Divestment of businesses and other disposals			5.7
Other items			-7.9
Total items affecting comparability	-3.9	-4.4	-8.3
EBITDA	187.8	127.0	314.8
Operative EBIT	91.6	82.2	173.8
Items affecting comparability in EBITDA	-3.9	-4.4	-8.3
Items affecting comparability in depreciation, amortization and impairments	-7.9	-9.3	-17.3
Operating profit (EBIT)	79.8	68.5	148.2

Quarterly information on items affecting comparability is disclosed in the section Reconciliation of IFRS figures.

BALANCE SHEET ITEMS

2018, EUR million	Pulp & Paper	Industry & Water	Group
Segment assets	1,472.3	779.3	2,251.6
Reconciliation to total assets as reported in the Group balance sheet:			
Other shares			228.4
Deferred income tax assets			28.2
Other investments			2.3
Defined benefit pension receivables			61.8
Other assets			46.6
Cash and cash equivalents			144.9
Total assets			2,763.8
Segment liabilities	238.0	173.2	411.1
Reconciliation to total liabilities as reported in the Group balance sheet:			
Interest-bearing non-current financial liabilities			646.3
Interest-bearing current financial liabilities			240.0
Other liabilities			263.8
Total liabilities			1,561.2

OTHER ITEMS

2018, EUR million	Pulp & Paper	Industry & Water	Group
Capital employed by segments on Dec 31	1,234.3	606.1	1,840.5
Capital employed by segments, 12-month rolling average	1,177.6	603.4	1,781.4
Operative ROCE, %	7.8	13.6	9.8
Capital expenditure	128.4	65.3	193.7

Information about geographical areas

REVENUE BY GEOGRAPHICAL AREA BASED ON CUSTOMER LOCATION

EUR million	2019	2018
Finland, domicile of the parent company	395.7	417.2
Other Europe, Middle East and Africa	943.6	942.3
Americas	1,062.0	1,001.6
Asia Pacific	257.5	231.7
Total	2,658.8	2,592.8

NON-CURRENT ASSETS BY GEOGRAPHICAL AREA

EUR million	2019	2018
Finland, domicile of the parent company	756.5	725.8
Other Europe, Middle East and Africa	511.6	467.1
Americas	522.9	426.5
Asia Pacific	211.5	191.4
Total	2,002.5	1,810.7

Information about major customers

The Group has several significant customers. At least 10% of the Group's revenue was not accumulated from any single external customer in 2019 or 2018.

The Group's accounting policies

Segment reporting

Segment information is presented in a manner consistent with the Group's internal organizational and reporting structure. Kemira's management evaluates the segments performance based on operative EBITDA and operative EBIT, among other factors. Assets and liabilities dedicated to a particular segment's operations are included in that segment's total assets and liabilities. Segment assets include property, plant and equipment, intangible assets, right-of-use assets, investments in associates, inventories, and certain current non-interest-bearing receivables. Segment liabilities include certain current non-interest-bearing liabilities. Geographically, Kemira's operations are divided into three business regions: Europe, the Middle East and Africa (EMEA), the Americas and the Asia Pacific (APAC).

Revenue recognition

IFRS 15 standard establishes a single comprehensive model for entities to use in accounting for revenue arising from contracts with customers. The core principle is that an entity should recognize revenue to depict the transfer of promised goods or services to customers to an amount that reflects the consideration to which the entity expects to be entitled in exchange for those goods or services. Kemira recognizes revenue when (or as) a performance obligation is satisfied, i.e. when 'control' of the good or service underlying the particular performance obligation is transferred to the customer.

Kemira's revenue consists mainly of contract types that include sales of chemical products and services which are related to sales of these products. Revenue recognition occurs at the point when the control of the products is transferred to the customer. In Kemira's sales agreements, control is transferred to the customer based on delivery terms and the revenue is recognized at a point in time.

Kemira provides delivery and handling services in conjunction with the sale of chemical products to customers. The delivery and handling services are recognized at the same time as revenue from products and are not treated as a separate performance obligation. Kemira recognizes the sale of products and the delivery and handling services for the same reporting period.

Discounts provided to customers are not a significant component of the sales price in Kemira's sales contracts.

2.2 OTHER OPERATING INCOME AND EXPENSES

OTHER OPERATING INCOME

EUR million	2019	2018
Gains on the sale of non-current assets	2.6	6.4
Rental income	0.8	1.2
Services	2.6	3.2
Other income from operations [1]	0.4	4.1
Total	6.4	14.8

OPERATING EXPENSES

EUR million	2019	2018
Materials and supplies	1,384.4	1,423.4
Employee benefit expenses	384.0	351.5
External services and other expenses [2] [3]	334.5	335.4
Freights and delivery expenses	180.1	182.5
Total	2,283.0	2,292.8

1) In 2018, other income from operations included settlements related to old acquisitions.

2) Includes equipment costs, travel expenses, leases, office related expenses, insurances, consulting and other operational expenses.

3) In 2019, other operating expenses included research and development expenses of EUR 30.3 million (30.2) including government grants received. Government grants received for R&D were EUR 0.2 million (0.3). The extent of the grants received reduces the research and development expenses.

EMPLOYEE BENEFIT EXPENSES

EUR million	Note	2019	2018
Wages, salaries and emoluments			
Wages and salaries		297.3	274.6
Emoluments of Kemira Oyj's CEO and the Board of Directors	6.1.	1.5	1.4
Share-based payments to others	2.3.	5.1	2.2
Total		303.9	278.2
Indirect employee benefit expenses			
Expenses for defined benefit pension plans and employee benefits	4.5.	3.1	2.7
Pension expenses for defined contribution plans		21.9	20.6
Other employee benefit costs		55.0	49.9
Total		80.0	73.2
Total employee benefit expenses		384.0	351.5

NUMBER OF PERSONNEL

	2019	2018
Average number of personnel by geographical area		
Europe, Middle East and Africa	2,585	2,590
Americas	1,554	1,546
Asia Pacific	881	674
Total	5,020	4,810
Personnel in Finland, average	812	821
Personnel outside Finland, average	4,208	3,989
Total	5,020	4,810
Number of personnel on Dec 31	5,062	4,915

AUDITOR'S FEES AND SERVICES

EUR million	2019	2018
Audit fees	1.4	1.5
Tax services	0.3	0.4
Other services	0.3	0.7
Total	2.0	2.6

In the Annual General Meeting held on March 21, 2019, Ernst & Young Oy was elected as the principal auditor for the Group. In 2018, Deloitte Oy was acting as the principal auditor.

The Group's accounting policies

Government grants
Government grants for investments are recognized as a deduction from the carrying amount of PP&E. The grants are recognized in the income statement as smaller depreciations over the asset's useful life. Government grants for research activities are recognized as a deduction from expenses and certain other grants are recognized in other income from operations.

Research and developments costs
Research and development costs are recognized as an expense as incurred. Development costs are capitalized as intangible assets when it can be shown that a development project will generate a probable future economic benefit, and the costs attributable to the development project can reliably be measured. Capitalized development costs include material, labor and testing costs, as well as any capitalized borrowing costs that are directly attributable to bringing the asset ready for its intended use. Other development costs that do not meet these criteria are recognized as an expense as incurred. Development costs previously recognized as an expense are not recognized as an asset in the subsequent periods.

2.3 SHARE-BASED PAYMENTS

Share incentive plans 2019–2023

On December 21, 2018, the Board of Directors of Kemira Oyj established a long-term share incentive plan directed towards a group of key employees. The long-term share incentive plan includes altogether two one-year performance periods for the years 2019 and 2020, and three three-year performance periods for the years 2019–2021, 2020–2022 and 2021–2023.

Participation in the long-term share incentive plan's performance periods for 2019 and 2019–2021 is directed towards approximately 90 key employees at the beginning of the plan. If the criteria are fulfilled, the rewards to be paid in these performance periods will amount to a maximum of 643,500 Kemira Oyj's shares. In addition, the reward includes a cash portion intended to cover the taxes and tax-related costs arising from the reward.

Share incentive plan	2019	2019-2021
Performance period (calendar year)	2019	2019-2021
Restriction period of shares	2 years	3)
Issue year of shares	2020	2022
Number of transferred shares on December 31, 2019	1)	—
Number of participants on December 31, 2019	82	82
Performance criteria	Intrinsic value 2)	Intrinsic value 2)

1) In accordance with the terms and conditions of the share-based incentive plan, approximately 270,000 shares will be transferred to the participants during 2020.
2) The amount of the reward is based on the intrinsic value which is calculated using Kemira's operative EBITDA and Interest-bearing net liabilities.
3) A restriction period is not applied to three-year performance periods.

The Board of Directors has decided the maximum share allocation and participants to the performance periods 2020 and 2020-2022. If the criteria are fulfilled, the rewards to be paid in these performance periods will amount to a maximum of 643,500 Kemira Oyj's shares.

Share incentive plans 2015–2018

During the financial periods 2019 and 2018, Kemira has had share incentive plans for the calendar years 2015–2018. Under these share incentive plans, it has been possible to earn Kemira Oyj's shares based on one-year performance periods. The Board of Directors of Kemira has decided on the plan's performance criteria and on the required performance levels for each criterion at the beginning of each performance period.

The rewards for the performance periods have been paid partly in Kemira Oyj's shares and partly in cash. The cash proportion is intended to cover taxes and tax-related costs arising from the reward to the participant. As a rule, no reward has been paid if a participant's employment or service has ended before the reward payment.

The shares paid as a reward may not be transferred during the restriction period, which ends two years after the end of the performance period. If a participant's employment or service has ended during the restriction period, the participant has, as a rule, gratuitously returned the shares given as a reward without consideration.

Share incentive plan	2016 4)	2017	2018
Performance period (calendar year)	2016	2017	2018
Restriction period of shares	2 years	2 years	2 years
Issue year of shares	—	2018	2019
Number of transferred shares at December 31, 2019	—	139,808 5)	134,442
Number of participants at December 31, 2019	—	70	74
Performance criteria	Group's revenue and operative EBITDA margin	Intrinsic value 2)	Intrinsic value 2)

4) The set objectives were not achieved, therefore the share-based incentives were not paid on the basis of the share incentive plan.

5) At the end of the financial year ending December 31, 2019, the commitment period for the performance period 2017 ended and the 139,808 shares paid on the basis of the share-based incentive scheme were released.

CHANGES IN THE NUMBER OF SHARES IN THE SHARE INCENTIVE PLANS

Share incentive plan	2016	2017	2018
January 1, 2018	—	—	—
The shares issued to participants	—	149,328	—
The shares returned by participants	—	-3,400	—
December 31, 2018	—	145,928	—
January 1, 2019	—	145,928	—
The shares issued to participants	—	—	140,844
The shares returned by participants	—	-6,120	-6,402
December 31, 2019	—	139,808	134,442

THE EFFECT OF SHARE-BASED PAYMENTS ON OPERATING PROFIT

EUR million	Note	2019	2018
Rewards provided in shares		2.4	1.1
Rewards provided in cash		2.8	1.2
Total	2.2	5.1	2.2

The Group's accounting policies

Share-based payments

The Group has equity-settled share-based incentive plans under which the Group receives services from persons as consideration for the share-based rewards. The potential rewards for these services are provided to the person partly in shares and partly in cash.

The Group's share incentive plan includes persons in several different countries where the Group is obliged under local tax laws or regulations to pay the tax liability to the tax authorities on behalf of a person in cash. Due to tax obligations, the share-based incentive plans have been entirely classified as an equity-settled transaction.

The rewards granted on the basis of a share-based arrangement are recognized as personnel expenses in the income statement and in equity. The expense is recognized over the vesting period, which is the period over which the specified vesting conditions are to be satisfied.

Share-based compensation expenses are determined on the grant date based on the Group's estimate of the number of shares that are expected to vest at the end of the vesting period. Based on the vesting conditions, the Group revises its estimates of the number of shares expected to vest based on the balance sheet date. It recognizes the potential impact of the revision on original estimates in the income statement as a personnel expense, with the corresponding adjustment made to equity at fair value.

2.4 DEPRECIATION, AMORTIZATION AND IMPAIRMENTS

EUR million	2019	2018
Amortization of intangible assets and depreciation of property, plant and equipment		
Other intangible assets [1]	30.0	28.0
Buildings and constructions	17.7	17.7
Machinery and equipment	102.8	97.3
Other tangible assets	5.6	6.4
Total	156.2	149.3
Depreciations of right-of-use assets [2]		
Land	1.1	—
Buildings and constructions	8.6	—
Machinery and equipment	19.4	—
Other tangible assets	0.7	—
Total	29.8	—
Impairments of intangible assets and property, plant and equipment [3]		
Other intangible assets	0.0	0.1
Buildings and constructions	0.0	2.3
Machinery and equipment	1.9	14.9
Total	1.9	17.3
Total depreciation, amortization and impairments	187.9	166.6

1) Amortization of intangible assets related to business acquisitions amounted to EUR 18.5 million (15.9) during the financial year 2019.

2) Depreciation on property, plant and equipment has been reported in accordance with IFRS 16 Leases from 1 January 2019.

3) Impairments are related to the closure of plants.

Goodwill impairment tests are disclosed in Note 3.1. Goodwill.

The Group's accounting policies

Depreciation/amortization

Depreciation/amortization is calculated on a straight-line basis over the estimated asset's useful life. Land is not depreciated. The most commonly applied depreciation/amortization periods according to the Group's accounting policies are presented in the following table.

Depreciation of property, plant and equipment and amortization of intangible assets in years	
Buildings and constructions	20-40
Machinery and equipment	3-15
Development costs	a maximum of 8 years
Customer relationships	5-7
Technologies	5-10
Non-compete agreements	3-5
Other intangible assets	5-10
Right-of-use assets	during a lease term

Depreciation/amortization of an asset begins when it is available for use and it ceases at the moment when the asset is classified under IFRS 5 as held for sale, or is included in the disposal group.

2.5 FINANCE INCOME AND EXPENSES

EUR million	2019	2018
Finance income		
Dividend income	0.0	0.1
Interest income		
Interest income from loans and receivables	1.8	3.4
Interest income from financial assets at fair value through profit or loss	1.1	1.6
Other finance income [1]	1.0	3.6
Total	3.9	8.6
Finance expense		
Interest expenses		
Interest expenses from other liabilities	-24.0	-21.6
Interest expenses from financial liabilities at fair value through profit or loss [2]	-6.5	-6.9
Interest expenses from lease liabilities	-6.8	—
Other finance expenses	-5.0	-4.9
Total	-42.2	-33.4
Exchange differences		
Exchange differences from financial assets and liabilities at fair value through profit or loss	3.5	12.1
Exchange differences, other	-4.9	-12.2
Total	-1.4	-0.1
Total finance income and expenses	-39.7	-25.0
Net finance expenses as a percentage of revenue, %	1.5	1.0
Net interest as a percentage of revenue, %	1.3	0.9

EUR million	2019	2018
Change in Consolidated Statement of Comprehensive Income from hedge accounting instruments		
Cash flow hedge accounting: amount recognized in the Consolidated Statement of Comprehensive Income [3)]	-15.0	17.5
Total	-15.0	17.5
Exchange differences		
Realized	-0.9	-2.1
Unrealized	-0.5	1.9
Total	-1.4	-0.1

1) In 2018, other finance income included gains from the sale of shares in energy production companies.

2) Due to the discontinuation of hedge accounting for interest rate derivatives, a loss of EUR 0.5 million was recognized in interest expenses in 2019.

3) Consists mostly from changes in fair value of electricity derivatives under hedge accounting treatment.

2.6 INCOME TAXES

EUR million	2019	2018
Current taxes	-45.4	-29.9
Taxes for prior years	-1.3	-0.1
Change in deferred taxes	8.5	1.9
Total	-38.2	-28.1

RECONCILIATION BETWEEN TAX EXPENSE AND TAX CALCULATED AT DOMESTIC TAX RATE

EUR million	2019	2018
Profit before tax	154.7	123.3
Tax at parent company's tax rate 20%	-30.9	-24.7
Foreign subsidiaries' different tax rate	-2.7	-1.6
Non-deductible expenses and tax-exempt profits	-1.3	-0.1
Share of profit or loss of associates	0.0	0.0
Tax losses	0.2	-4.4
Tax for prior years	-1.3	-0.1
Effect of change in tax rates	0.0	0.1
Changes in deferred taxes related to prior years	-2.2	2.6
Income taxes in the Income Statement	-38.2	-28.1

In 2019, the effective tax rate of the Group was 24.7% (22.8%).

TAX LOSSES

EUR million	Tax losses carried forward	Recognized deferred taxes	Unrecognized deferred taxes
Expiry within 5 years	98.4	8.8	15.6
Expiry after 5 years	4.4	1.0	0.2
No expiry	94.7	0.5	31.4
Total	197.5	10.3	47.3

At the end of 2019, the subsidiaries had EUR 157.1 million (131.5) tax losses, of which no deferred tax benefits have been recognized. The subsidiaries' tax losses are incurred in different currencies and born mainly in Brazil and China.

The Group has a tax dispute pending in the Board of Adjustment in Finland related to the tax deductibility of certain interest costs. In case of an unfavorable decision, there will be no impact to the Group's financial position. As a result of a favorable decision, the Group's income tax credits and tax losses carried forward would increase materially.

The Group's accounting policies

Income taxes

The Group's tax expense for the period comprises current tax, adjustments prior tax periods and deferred tax. Tax is recognized in the income statement, except where it relates to items recognized in other comprehensive income or directly in equity. In this case, the tax is also recognized in other comprehensive income or directly in equity.

The current income tax charge is calculated based on tax laws enacted or substantively enacted on the balance sheet date in the countries where the company and its subsidiaries operate and generate taxable income.

The items in the financial statements that include significant accounting estimates and accounting policies that require judgment

Deferred taxes and uncertain tax positions

The Management evaluates regularly the positions taken in the tax returns to identify situations in which the applicable tax regulation may be subject to interpretation. The Management evaluates also other potential uncertainties related to the tax positions identified in the tax audits or tax disputes. The potential provisions are recorded based on estimated outcome and probability.

2.7 EARNINGS PER SHARE

	2019	2018
Earnings per share, basic		
Net profit attributable to equity owners of the parent company, EUR million	110.2	89.1
Weighted average number of shares [1)]	152,629,655	152,483,502
Basic earnings per share, EUR	0.72	0.58
Earnings per share, diluted		
Net profit attributable to equity owners of the parent company, EUR million	110.2	89.1
Weighted average number of shares [1)]	152,629,655	152,483,502
Adjustments:		
Average number of treasury shares it is possible to be issued on the basis of the share-based payments	441,388	284,449
Weighted average number of shares for diluted earnings per share	153,071,043	152,767,951
Diluted earnings per share, EUR	0.72	0.58

1) Weighted average number of shares outstanding, excluding the number of treasury shares held by Kemira Oyj.

The Group's accounting policies

Earnings per share

The basic earnings per share are calculated by dividing the profit attributable to the equity owners of the parent company by the weighted average number of shares issued during the period excluding treasury shares held by Kemira Oyj. The diluted earnings per share are calculated by adjusting the weighted average number of ordinary shares with the dilutive effect of all the potential dilutive shares, such as shares from share-based payments.

2.8 OTHER COMPREHENSIVE INCOME

EUR million	2019	2018
Items that may be reclassified subsequently to profit or loss		
Exchange differences on translating foreign operations	8.4	1.2
Cash flow hedges	-18.5	21.9
Items that will not be reclassified subsequently to profit or loss		
Other shares	16.6	-7.5
Remeasurements of defined benefit plans	-6.3	13.3
Other comprehensive income for the period before taxes	0.2	28.9
Tax effects relating to components of other comprehensive income	0.5	-7.1
Other comprehensive income for the period, net of tax	0.7	21.8

THE TAX RELATING TO COMPONENTS OF OTHER COMPREHENSIVE INCOME

	2019			2018		
EUR million	Before tax	Tax charge (-)/ credit (+)	After tax	Before tax	Tax charge (-)/ credit (+)	After tax
Items that may be reclassified subsequently to profit or loss						
Exchange differences on translating foreign operations	8.4	-0.6	7.8	1.2	-1.0	0.2
Cash flow hedges	-18.5	3.5	-15.0	21.9	-4.4	17.5
Items that will not be reclassified subsequently to profit or loss						
Other shares	16.6	-3.3	13.4	-7.5	1.5	-5.9
Remeasurements of defined benefit plans	-6.3	0.9	-5.4	13.3	-3.2	10.1
Total other comprehensive income	0.2	0.5	0.7	28.9	-7.1	21.8

3. CAPITAL EXPENDITURES AND ACQUISITIONS

3.1 GOODWILL

EUR Million	Note	2019	2018
Net book value on Jan 1		512.5	505.0
Acquisition of subsidiaries and business acquisitions [1]	3.5.	0.4	2.2
Decreases and other changes		0.0	0.0
Exchange differences		2.9	5.4
Net book value on Dec 31		515.8	512.5

1) Goodwill has increased due to the business acquisition in China.

Impairment testing of goodwill

Goodwill is allocated to two individual cash-generating units that are the Group's reportable segments. The reportable segment represents the lowest level within the Group at which goodwill is monitored for internal management purposes. The Group's two reportable segments are Pulp & Paper and Industry & Water. A summary of the tested net book values and goodwill relating to the Group's reportable segments is presented in the following table.

	2019		2018	
EUR Million	Net book value [2]	of which goodwill	Net book value	of which goodwill
Pulp & Paper	1,269	357	1,234	355
Industry & Water	697	159	606	157
Total	1,966	516	1,841	513

2) Right-of-use assets under IFRS 16 are included in the carrying amounts of the two cash-generating units tested.

The Group carries out its impairment testing of goodwill annually, or whenever there is an indication that the recoverable amount may be less than its carrying amount. The recoverable amounts of cash-generating units have been determined based on value in use calculations which require the use of estimates and assumptions. The key assumptions in value in use calculations are the EBITDA margin and discount rate.

The long-term EBITDA margin assumption used for the impairment testing of goodwill is based on past experience about EBITDA margins and reflects the management's perception of developments in sales prices and sales volumes during the forecast period. The cash flow forecasts used in the impairment testing are based on cash flow forecasts approved by the management covering a five-year horizon. The expected growth used to extrapolate cash flows subsequent the five-year forecast period was assumed to be 1% (2018: 0%) in both Pulp & Paper and Industry & Water.

The discount rates applied were based on the Group's adjusted Weighted Average Cost of Capital (WACC) before taxes. The risk-adjusted WACC rate was defined for each cash-generating unit. The pre-tax discount rates used in performing the impairment tests of the Group's reportable segments are presented in the following table.

%	2019	2018
Pulp & Paper 3) 4)	7.8	5.2
Industry & Water 3) 4)	7.8	5.1

3) The increase in the discount rate is mainly due to the market risk and size risk premium used.
4) The capital structure used in the discount rate has changed and the debt-to-equity ratio has increased due to IFRS 16 for 2019.

In addition, at the time of impairment testing an impairment test based on market value has been carried out. The value in use calculation based on cash flow forecasts have been validated by comparing it against the quoted market value of Kemira.

During the financial years 2019 and 2018, impairment tests have not indicated any impairment, and no impairment loss has been recognized in the income statement.

Sensitivity analysis

In 2019, as part of the impairment testing, the Group has carried out sensitivity analysis that assess key changes in assumptions as follows: a decrease of 2 percentage points in EBITDA margin, a decrease of 10% in estimated cash flow during the forecast period, a increase of 1 percentage point and 2 percentage points in the discount rates or a decrease of 10% in cash flows and an increase of 2 percentage points in the discount rate.

Based on the sensitivity analyses carried out, the management has estimated that changes in the key assumptions of EBITDA margins, discount rates and cash flows would not result in the cash-generating units carrying amount exceeding recoverable amount, no impairment losses would to be recorded in either of the reportable segments.

The Group's accounting policies

Goodwill

Goodwill arises from business combinations. Goodwill represents the excess of the consideration transferred, the amount of any non-controlling interest in the acquiree and the acquisition-date fair value of any previous equity interest in the acquiree over the fair value of the identifiable net assets acquired. Goodwill is measured at cost less the accumulated impairment losses.

Impairment testing

On each balance sheet date, the Group's assess whether there is any indication of an asset's impairment. If any indication of impairment exists, the recoverable amount of the asset or the cash-generating unit is calculated on the basis of the value in use or the net selling price.

For the purpose of impairment testing goodwill, a cash-generating unit has been defined as an operating segment. Two or more operating segments are not combined into one reportable segment. The recoverable amount of a reportable segment is defined as its value in use, which consists of the discounted future cash flows to the unit. Estimates of future cash flows are based on the continuing use of an asset and the forecasts by the management. Cash flow estimates do not include the effects of improved asset performance, investments or future reorganizations.

Goodwill impairment is tested by comparing Pulp & Paper and Industry & Water reportable segment's recoverable amount with its carrying amount. The carrying amount includes goodwill, intangible assets and PP&E, right-of-use assets and working capital. The Group does not have intangible assets with indefinite useful lives other than goodwill. All goodwill has been allocated to the reportable segments.

An impairment loss is recognized, whenever the carrying amount of an asset or a cash-generating unit exceeds its recoverable amount. An impairment loss is recognized in the income statement. If there has been a positive change in the estimates used to determine an asset's recoverable amount since the last impairment loss was recognized, an impairment loss recognized for previous years is reversed only to the extent that the asset's carrying amount does not exceed the carrying amount that would have been determined if no impairment loss had been recognized for the previous years. An impairment loss for goodwill is never reversed.

The items in the financial statements that include significant accounting estimates and accounting policies that require judgment

Impairment test of goodwill

The impairment tests of goodwill and other assets include determining future cash flows which, with regard to the most significant assumptions, are based on EBITDA margin and discount rates. Significant adverse developments in cash flows and interest rates may necessitate the recognition of an impairment loss.

3.2 OTHER INTANGIBLE ASSETS

2019, EUR million	Other intangible assets	Prepayments	Total
Acquisition cost on Jan 1 [1)]	318.1	5.6	323.8
Additions	8.2	0.4	8.6
Purchases of subsidiaries and business acquisitions [2)]	2.2	-2.2	0.0
Decreases and other changes	-2.3	0.0	-2.3
Reclassifications	-1.6	-0.2	-1.8
Exchange rate differences	1.4	-0.5	0.9
Acquisition cost on Dec 31	326.0	3.2	329.2
Accumulated amortization on Jan 1	-205.6		-205.6
Accumulated amortization relating to decreases and transfers	2.3		2.3
Amortization during the financial year	-30.0		-30.0
Impairments	0.0		0.0
Exchange rate differences	-0.4		-0.4
Accumulated amortization on Dec 31	-233.8		-233.8
Net book value on Dec 31	92.3	3.2	95.5

1) On January 1, 2019, Kemira adopted the IFRS 16 Leases standard. As a result of this, certain intangible assets have been reclassified. More information on the impact of the adoption of IFRS 16 can be found in Note 1. The Group's Accounting Policies for the Consolidated Financial Statements.

2) Includes patents and a non-compete agreement that were allocated to intangible assets from the business acquisition in China.

The Group holds assigned emissions allowances under the EU Emissions Trading System at the Helsingborg site in Sweden and at the Bradford site in the UK. At the Group level, the allowances showed a surplus of 45 348 tons of carbon dioxide in 2019 (a surplus of 51,801 tons).

2018, EUR million	Other intangible assets	Prepayments	Total
Acquisition cost on Jan 1	267.3	10.5	277.8
Additions	19.7	-7.4	12.4
Purchases of subsidiaries and business acquisitions [2)]	41.2	2.5	43.7
Decreases and other changes	0.0	0.0	0.0
Exchange rate differences	0.5	0.0	0.4
Acquisition cost on Dec 31	328.6	5.6	334.2
Accumulated amortization on Jan 1	-177.2		-177.2
Accumulated amortization relating to decreases and transfers	0.0		0.0
Amortization during the financial year	-28.0		-28.0
Impairments	-0.1		-0.1
Exchange rate differences	-0.3		-0.3
Accumulated amortization on Dec 31	-205.6		-205.6
Net book value on Dec 31	123.0	5.6	128.6

The Group's accounting policies

Other intangible assets

Other intangible assets include for instance software and software licenses and patents, technologies, non-compete agreements and customer relationships acquired in business combinations. Intangible assets are measured at cost less accumulated amortization and any impairment losses. The Group has no intangible assets that have an indefinite useful life other than goodwill.

Emissions allowances

Carbon dioxide allowances are accounted for as intangible assets measured at cost. Carbon dioxide allowances received free of charge are measured at their nominal value (zero). A provision for the fulfillment of the obligation to return allowances is recognized if the free-of-charge allowances are not sufficient to cover actual emissions. The Group’s consolidated balance sheet shows no items related to emissions allowances when the volume of actual emissions is lower than that of the free-of-charge emissions allowances and the Group has not bought allowances on the market.

3.3 PROPERTY, PLANT AND EQUIPMENT

2019, EUR million	Land	Buildings and constructions	Machinery and equipment	Other property, plant and equip-ment	Prepayments and assets under construction 2)	Total
Acquisition cost on Jan 1	50.4	494.4	1,637.3	70.4	101.9	2,354.5
Additions	0.0	17.8	133.1	6.7	35.3	192.9
Acquisitions of subsidiaries and business acquisitions 1)	0.0	-0.2	-2.4	0.0	0.0	-2.6
Decreases and other changes	-0.7	-9.9	-79.9	-0.2	0.0	-90.7
Disposed subsidiaries	0.0	0.0	-2.3	0.0	0.0	-2.3
Reclassifications	0.0	0.0	0.2	0.0	0.2	0.5
Exchange rate differences	0.0	1.4	9.6	0.5	0.3	11.8
Acquisition cost on Dec 31	49.8	503.6	1,695.6	77.4	137.7	2,464.0
Accumulated depreciation on Jan 1	-9.9	-276.4	-1,089.1	-40.8		-1,416.3
Accumulated depreciation related to decreases and transfers	0.0	9.8	80.4	0.1		90.2
Depreciation during the financial year	0.0	-17.7	-102.8	-5.6		-126.2
Impairments	0.0	0.0	-1.9	0.0		-1.9
Exchange rate differences	0.0	0.0	-4.4	-0.3		-4.8
Accumulated depreciation on Dec 31	-9.9	-284.5	-1,117.9	-46.7		-1,458.9
Net book value on Dec 31	39.9	219.1	577.7	30.7	137.7	1,005.1

1) Includes items that were transferred to property, plant and equipment from the business acquisition in China.
2) Prepayment and non-current assets under construction are mainly comprised of plant investments.

2018, EUR million	Land	Buildings and constructions	Machinery and equipment	Other property, plant and equip-ment	Prepayments and assets under construction [2)]	Total
Acquisition cost on Jan 1	51.0	499.0	1,551.7	66.3	89.4	2,257.5
Additions	0.1	2.5	127.0	4.6	1.4	135.6
Acquisitions of subsidiaries and business acquisitions [1)]	0.0	5.5	6.2	0.0	11.7	23.3
Decreases and other changes	0.0	-6.4	-44.6	-0.6	0.0	-51.5
Disposed subsidiaries	-0.1	-1.7	-0.4	0.0	0.0	-2.2
Reclassifications	0.0	0.0	0.0	0.0	0.0	0.0
Exchange rate differences	-0.5	-4.5	-2.7	0.1	-0.6	-8.3
Acquisition cost on Dec 31	50.4	494.4	1,637.3	70.4	101.9	2,354.5
Accumulated depreciation on Jan 1	-9.8	-267.8	-1,022.9	-34.1		-1,334.7
Accumulated depreciation related to decreases and transfers	0.0	8.3	45.1	0.6		54.0
Depreciation during the financial year	0.0	-17.7	-97.3	-6.4		-121.3
Impairments	0.0	-2.3	-14.0	-0.9		-17.2
Exchange rate differences	0.0	3.1	0.0	-0.1		3.0
Accumulated depreciation on Dec 31	-9.8	-276.4	-1,089.1	-40.8		-1,416.3
Net book value on Dec 31 [3)]	40.6	218.0	548.2	29.6	101.9	938.3

3) In 2018 Property, plant and equipment also includes the assets leased under finance leases. These are disclosed in Note 5.3. Interest-bearing liabilities.

The Group's accounting policies

Property, plant and equipment

Property, plant and equipment are measured at cost less accumulated depreciation and any impairment losses. The residual values and useful lives of the assets are reviewed at least at the end of each financial year. Gains and losses on the sale of non-current assets are included in other operating income and expenses. Borrowing costs directly attributable to the acquisition or construction of a qualifying asset are capitalized as part of the cost of the asset in question when it is probable that they will generate future economic benefits and the costs can be reliably measured. The costs of major inspections or the overhaul of an asset performed at regular intervals and identified as separate components are capitalized and depreciated over their useful lives.

3.4 LEASES

2019, EUR million	Land	Buildings and constructions	Machinery and equipment	Other property, plant and equipment	Total
Net book value Jan 1	28.2	39.2	59.7	2.2	129.3
Additions	0.2	1.0	32.3	0.5	34.0
Depreciation and impairments	-1.1	-8.6	-19.4	-0.7	-29.8
Reclassifications	1.5	0.0	0.0	0.0	1.5
Exchange rate differences	0.0	0.2	1.0	0.0	1.2
Net book value Dec 31	28.7	31.9	73.7	2.0	136.2

Maturity of lease liabilities has been presented in the Note 5.3. Interest-bearing liabilities. Changes in lease liabilities and payments related to lease liabilities has been presented in Note 5.1. Capital Structure. Further information of the IFRS 16 transition has been presented in Note 1. Group Accounting Policies.

The Group's accounting policies

Leases

At the time of entering into an agreement, Kemira assesses whether it is a lease or whether it contains a lease. An agreement is a lease in accordance with IFRS 16 if the agreement gives Kemira, as lessee, the right to control the asset and control its use for a specified period, against consideration. Kemira's leases are mainly for land, buildings and transport equipment.

The lease is recognized as a fixed asset and a corresponding liability when the leased asset is available to Kemira. The rent paid is divided into debt and interest expenses. Interest expenses are recognized in the income statement over the lease term and the asset is amortized over the lease term. Assets and liabilities arising from leases are initially measured at present value. Lease liabilities include the net fair value of rentals, consisting of a fixed payment and a variable rent that are index or price level dependent. The lease liability is discounted to its present value using an interest rate on the additional loan, consisting of the reference interest rate and the lessee's credit margin, which the lessee would pay on the acquisition of the corresponding asset by debt financing. This additional loan rate will vary depending on the duration of the lease and the currency.

The lease term is the period during which the lease cannot be canceled. Kemira leases typically have a fixed term, and some contracts have options for renewal. The option is included in the lease liability if it is reasonably certain that the option will be exercised. If there is a change in the estimate of the exercise of the option, the lease liability and the related asset are reassessed.

A right-of-use asset is measured at cost, which includes the original amount of the lease liability. Building leases deal separately with lease components and non-lease components where they can be identified and distinguished from the concession. In subsequent periods, the accumulated depreciation and impairment losses are deducted from the asset. Fixed assets are tested for impairment in accordance with IAS 36 Impairment of Assets.

Payments for short-term and low-value leases are recognized as an expense in the income statement on a straight-line basis over the lease term. During 2019 these lease expenses were EUR 4 million. Leases with a maximum term of 12 months are regarded as short-term. Low value assets include IT equipment, office furniture and other low value machines.

3.5 OTHER SHARES

2019, EUR million	The shares of Pohjolan Voima Group	Other non-listed shares	Total
Net book value on Jan 1	226.9	1.4	228.4
Additions	—	0.3	0.3
Decreases	—	—	—
Change in fair value	16.6	—	16.6
Net book value on Dec 31	243.4	1.7	245.2

2018, EUR million			
Net book value on Jan 1	234.3	1.5	235.8
Additions	—	—	—
Decreases	—	—	—
Change in fair value	-7.4	-0.1	-7.5
Net book value on Dec 31	226.9	1.4	228.4

SHARES IN THE POHJOLAN VOIMA GROUP

EUR million	Class of shares	Holding, %	Class of assets	2019	2018
Pohjolan Voima Oy	A	5	hydro power	100.2	76.2
Pohjolan Voima Oy	B	2	nuclear power	40.7	43.2
Pohjolan Voima Oy [1]	B2	7	nuclear power	21.3	21.3
Teollisuuden Voima Oyj	A	2	nuclear power	78.4	83.3
Other Pohjolan Voima Oy [2]	C2, G5, G6, M	several	several	3.0	3.0
Total				243.4	226.9

1) The plant supplier (AREVA-Siemens consortium) is building the Olkiluoto 3 nuclear power plant (OL 3) in Finland with fixed-price turnkey contracts. In spring 2005, the plant supplier started construction work with a contractual obligation to start the electricity production in OL 3 in spring 2009. However, OL 3 has been delayed several times from its original start-up schedule. TVO's release on December 19, 2019, gives the updated schedule for the start-up of OL 3 by the plant supplier. According to the plant supplier, the nuclear fuel of OL 3 will be loaded into the reactor in June 2020, the first connection to the electricity grid will take place in November 2020, and the start of regular electricity production of OL 3 will commence in March 2021.

2) On September 12, 2018, Venator announced its intention to close its Pori TiO2 manufacturing facility. As a result of this announcement, Kemira's fair value of PVO G6 share series decreased by EUR 21.4 million.

Kemira Oyj owns 5% of Pohjolan Voima Oy, a company of the Pohjolan Voima Group, and 1% of its subsidiary Teollisuuden Voima Oyj.

Discounted cash flow assumptions and sensitives

	2019	2018
Short-term discount rate	3.5%	3.8%
Long-term discount rate	3.6%	4.4%
Electricity price estimate EUR/MwH	35.95–54.41	34.55–52.77

A 10% decrease or increase in the electricity market price in the future would negatively or positively impact on the fair value of the shares by approximately EUR +/- 36 million (+/- 35). An increase or decrease of one percentage point in the discount rate would negatively or positively impact on the fair value of the shares by approximately EUR - 40 million (- 30) or approximately EUR 67 million (44).

The Group's accounting policies

Other shares

Other shares are classified at fair value through other comprehensive income. Changes in the fair value of other shares are recognized in other comprehensive income under equity in the fair value reserve taking the tax effect into account and including gains and losses from sales. The dividends are recognized in the profit or loss statement. Other shares include non-listed companies, the shareholdings in Pohjolan Voima Oy (PVO) and Teollisuuden Voima Oyj (TVO) representing the largest investments.

PVO and its subsidiary TVO comprise a private electricity-generating group owned by Finnish manufacturing and power companies, to which it supplies electricity at cost. The PVO Group owns and operates two nuclear power plant units in Olkiluoto in the municipality of Eurajoki. Kemira Group has A series shares in TVO and A, B, C, G and M series shares in PVO. Different share series entitle the shareholder to electricity generated by different power plants. The owners of each share series are responsible for the fixed costs of the series in question in proportion to the number of the shares, regardless of whether they use their power or energy share or not, and for variable costs in proportion to the amount of energy used.

Kemira Oyj's holding in the PVO Group entitling Kemira to the electricity from completed power plants is measured at the fair value based on the discounted cash flow resulting from the difference between the market price of the electricity and the cost price. The forward electricity price quotations in Finland area published by the Nordic Electricity Exchange have been used as the basis for the market price for the electricity for the first five years, and after this, the development of the prices is based on a fundamental simulation model of the Nordic electricity market. The impact of inflation in the coming years is taken into account in the price of the electricity and the cost prices. The cost prices are determined by each share series. Future cash flows have been discounted based on the estimated useful lifecycles of the plants related to each share series, and hydro power also includes terminal value. The discount rate has been calculated using the annually determined average weighted cost of capital.

The items in the financial statements that include significant accounting estimates and accounting policies that require judgment

Estimated fair value of shares in the PVO Group
The Group's shareholding in the unlisted PVO Group is measured at fair value, based on the discounted cash flow resulting from the difference between the market price of electricity and the cost price using the valuation model. Developments in the actual fair value may differ from the estimated value due to factors, such as electricity prices, inflation, the forecast period or the discount rate.

3.6 BUSINESS COMBINATIONS

2018: Acquisition of business with Kemira TC Wanfeng Chemicals Yanzhou Company in China

On September 29, 2017, Kemira signed an agreement to form a company - Kemira TC Wanfeng Chemicals Yanzhou ("NewCo") - with Shandong Tiancheng Wanfeng Chemical Technology ("TC Wanfeng"), an AKD producer in China. NewCo will strengthen Kemira's position as the leading global producer of chemicals in the Pulp & Paper industry.

NewCo mainly produces AKD wax and its key raw material fatty acid chloride (FACL). AKD wax, for which the main component is based on renewable raw materials, is a sizing chemical used in board and paper manufacturing to create resistance against liquid absorption.

Through backward integration, Kemira is expanding its position in the value chain. NewCo is the largest AKD wax manufacturing unit globally and thus improves Kemira's AKD wax production capacity. NewCo's site is located in the same chemical park with Kemira's first AKD wax plant in Yanzhou, China and the proximity of the two sites results in operational synergies. The NewCo site also offers growth opportunities for other chemicals.

On November 30, 2018, Kemira closed the deal for the acquisition of business into NewCo and received final authority permits in China. The purchase price of the acquired business into NewCo was EUR 67 million and part of the purchase price is outstanding. The purchase price does not involve contingent consideration. Kemira owns 80% and TC Wanfeng 20% of NewCo. The deal includes put and call options regarding the TC Wanfeng 20% holding of NewCO's shares. The obligation related to the put option is recognized as a liability in the balance sheet.

Based on the acquisition calculation under IFRS 3 standard, EUR 39 million was allocated to intangible assets as patents and a non-compete agreement. Acquired intangible assets will be amortized within seven years. Goodwill of EUR 3 million arose mainly from the expected synergy in the business combination. The acquired business was consolidated into the Pulp & Paper segment starting on December 1, 2018.

The purchase price for the business on the acquisition date and the fair value for the amounts of the assets acquired and goodwill are final, and the values in the following table do not differ materially from the reported in the Consolidated Financial Statements in 2018.

EUR million	
Purchase price of the acquisition, total	67
Intangible assets	39
Property, plant and equipment	25
Identifiable assets acquired	64
Goodwill	3
Total assets acquired	67

Acquired business related costs of EUR 0.3 million was included in other operating expenses in the Consolidated Income Statements in 2018.

Revenue and EBITDA from the acquired business for the period of December, 2018 had no material impact on the Consolidated Income Statement in 2018.

The Group's accounting policies

Business combinations

Subsidiaries are fully consolidated from the date on which the control is transferred to the Group. They are deconsolidated from the date on which this control ceases.

The consideration transferred for acquisition of a subsidiary is defined as an aggregate of the fair values of the assets transferred, the liabilities assumed and the equity interest issued by the Group. The consideration transferred may include the fair value of any asset or liability resulting from the contingent consideration arrangement. Acquisition-related costs are expensed as incurred. Identifiable assets acquired, and liabilities and contingent liabilities that are assumed in a business combination are measured at their fair values on the acquisition date. On an acquisition-by-acquisition basis, the Group recognizes any non-controlling interest in the acquiree, either at fair value or at the non-controlling interest's proportionate share of the acquiree's net assets.

The amount that exceeds the aggregate of the consideration transferred, the amount of any non-controlling interest in the acquiree and the acquisition-date fair value of any previous equity interest in the acquiree over the fair value of the Group's share of the net assets acquired is recognized as goodwill on the balance sheet. If this is less than the fair value of the net assets of the subsidiary acquired by bargain purchase, the difference is recognized directly in the income statement.

4. WORKING CAPITAL AND OTHER BALANCE SHEET ITEMS

NET WORKING CAPITAL

EUR million	Note	2019	2018
Inventories	4.1	260.6	283.8
Trade receivables and other receivables	4.2	378.8	420.2
Excluding financing items in other receivables [1]		-11.9	-32.5
Trade payables and other liabilities	4.3	455.7	439.1
Excluding financing items in other liabilities [1]		-38.8	-28.0
Total		210.7	260.4

1) Includes mainly interest income and expenses, exchange gains and losses and hedging related items.

Quarterly information on net working capital is disclosed in the section on Reconciliation of IFRS figures.

4.1 INVENTORIES

EUR million	2019	2018
Materials and supplies	82.9	86.5
Finished goods	169.6	179.1
Prepayments	8.1	18.2
Total	260.6	283.8

In 2019, EUR 6.3 million (5.4) of the inventory value was recognized as an expense in order to decrease the book values of the inventories to correspond with their net realizable value.

The Group's accounting policies

Inventories

Inventories are measured at the lower of cost and net realizable value. Costs are determined on a first-in first-out (FIFO) basis or by using a weighted average cost formula, depending on the nature of the inventory. The cost of finished goods and work in progress include the proportion of production overheads at normal capacity. The net realizable value is the sales price received in the ordinary course of business less the estimated costs for completing the asset and the sales costs.

4.2 TRADE RECEIVABLES AND OTHER RECEIVABLES

EUR million	2019	2018
Trade and other receivables		
Trade receivables	308.4	307.3
Prepayments	2.1	1.9
Prepaid expenses and accrued income	34.7	62.7
Other receivables	33.6	48.4
Total	378.8	420.2

AGING OF OUTSTANDING TRADE RECEIVABLES

	2019		
EUR million	Receivables, gross amount	Expected credit losses	Receivables, net amount
Not due trade receivables	267.7	-0.2	267.4
Trade receivables 1-90 days overdue	40.5	-0.4	40.1
Trade receivables more than 91 days overdue	6.8	-6.0	0.9
Total	315.0	-6.6	308.4

	2018		
EUR million	Receivables, gross amount	Expected credit losses	Receivables, net amount
Not due trade receivables	265.4	-0.2	265.2
Trade receivables 1-90 days overdue	40.9	-0.1	40.8
Trade receivables more than 91 days overdue	7.8	-6.5	1.3
Total	314.1	-6.8	307.3

In 2019, the impairment loss of trade receivables amounted to EUR 0.6 million (0.6).

In 2019, items that were due in a time period longer than one year included trade receivables of EUR 0.3 million (0.0), prepaid expenses and an accrued income of EUR 4.0 million (10.4), other receivables of EUR 3.7 million (5.0) and prepayments of EUR 0.3 million (0.6).

The Group's accounting policies

Trade receivables, loan receivables and other receivables

Trade receivables, loan receivables and other receivables are initially recognized at fair value and subsequently measured at amortized cost, taking impairment into account. These items are subject to a simplified impairment model in accordance with the IFRS 9 standard, where the estimated amount of credit losses is based on the expected credit losses on life expectancy.

The expected credit loss rates for the impairment model vary for trade receivables by age distribution and geographical area of the EMEA, America and APAC. Credit loss rates are based on sales payment profiles and historical credit losses.

The expected credit losses for trade receivables are recognized using the simplified impairment model in accordance with IFRS 9. The expected credit losses are calculated by multiplying the book value of unpaid trade receivables by the expected credit loss rate according to geographical area, and any overdue trade receivables over 180 days are assessed based on a specific risk assessment. In addition, an estimate of a credit loss is recognized for individual trade receivables when there is objective evidence that the receivables will not be recovered on all original terms.

Trade receivables, loan receivables and other receivables do not include a significant financial component.

4.3 TRADE PAYABLES AND OTHER CURRENT LIABILITIES

EUR million	2019	2018
Trade payables and other liabilities		
Prepayments received	2.7	1.9
Trade payables	188.2	179.9
Accrued expenses	228.7	230.0
Other non-interest-bearing current liabilities	36.2	27.4
Total	455.7	439.1
Accrued expenses		
Employee benefits	92.4	66.5
Items related to revenue and purchases	87.9	108.0
Interest	7.8	8.8
Exchange rate differences	17.3	17.9
Other	23.2	28.8
Total	228.7	230.0

The Group's accounting policies

Trade payables and other liabilities

Trade and other payables are presented as current liabilities if payment is due within 12 months after the financial period. Trade payables are initially recognized at fair value and subsequently measured at amortized cost.

4.4 DEFERRED TAX LIABILITIES AND ASSETS

EUR million	Jan 1, 2019	Recognized in the income statement	Recognized in other comprehensive income	Recognized in equity	Acquired and disposed subsi-diaries	Exchange differences and reclassifications	Dec 31, 2019
Deferred tax liabilities							
Depreciations and untaxed reserves [1)]	44.4	2.0	0.0	0.0	0.0	-2.1	44.3
Other shares	21.2	0.0	3.3	0.0	0.0	0.0	24.5
Defined benefit pensions	13.8	-2.9	1.2	0.0	0.0	-1.7	10.4
Fair value adjustments of net assets acquired	3.3	-0.5	0.0	0.0	0.0	0.0	2.8
Other items	5.3	-1.5	1.8	0.6	0.0	3.3	9.4
Total	88.1	-2.9	6.3	0.6	0.0	-0.5	91.5
Deducted from deferred tax assets	-17.9						-23.7
Deferred tax liabilities in the balance sheet	70.1						67.8
Deferred tax assets	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Provisions	14.1	3.6	0.0	0.0	0.0	0.0	17.7
Tax losses	9.3	2.8	0.0	0.0	0.0	0.1	12.2
Defined benefit pensions	10.2	-0.1	3.3	0.0	0.0	-1.8	11.5
Other items	12.6	-0.7	5.0	0.0	0.0	1.2	18.0
Total	46.1	5.6	8.3	0.0	0.0	-0.6	59.4
Deducted from deferred tax liabilities	-17.9						-23.7
Deferred tax assets in the balance sheet	28.2						35.7

1) Depreciations and untaxed reserves includes EUR 1.0 million adjustment related to the adoption of the IFRS 16 Leases standard on January 1, 2019. Further information regarding the standard change is available in Note 1 Group Accounting Policies.

EUR million	Jan 1, 2018	Recognized in the income statement	Recognized in other comprehensive income	Recognized in equity	Acquired and disposed subsi-diaries	Exchange differences and reclassifications	Dec 31, 2018
Deferred tax liabilities							
Depreciations and untaxed reserves	41.3	2.4	0.0	0.0	0.0	1.7	45.4
Other shares	22.7	0.0	-1.5	0.0	0.0	0.0	21.2
Defined benefit pensions	11.1	-0.1	2.9	0.0	0.0	0.0	13.8
Fair value adjustments of net assets acquired	4.8	-1.5	0.0	0.0	0.0	0.0	3.3
Other items	5.2	-1.0	1.5	0.5	0.0	-1.0	5.3
Total	85.1	-0.1	2.9	0.5	0.0	0.7	89.1
Deducted from deferred tax assets	-22.7						-17.9
Deferred tax liabilities in the balance sheet	62.4						71.1
Deferred tax assets							
Provisions	13.8	0.0	0.0	0.0	0.0	0.4	14.1
Tax losses	10.4	-1.0	0.0	0.0	0.0	-0.1	9.3
Defined benefit pensions	9.9	0.1	0.3	0.0	0.0	-0.2	10.2
Other items	13.8	2.7	-3.9	0.0	0.0	0.0	12.6
Total	47.9	1.8	-3.6	0.0	0.0	0.0	46.1
Deducted from deferred tax liabilities	-22.7						-17.9
Deferred tax assets in the balance sheet	25.2						28.2

The Group's accounting policies

Deferred taxes

Deferred tax is recognized, using the liability method, on temporary differences arising between the tax bases of the assets and liabilities and their carrying amounts in the Consolidated Financial Statements. However, deferred tax liabilities are not recognized if they arise from the initial recognition of an asset or liability in a transaction other than a business combination that at the time of the transaction affects neither accounting profit nor taxable profit or loss. Deferred income tax is determined using tax rates (and laws) that have been enacted or substantially enacted by the balance sheet date and are expected to apply when the related deferred income tax asset is realized or the deferred income tax liability is settled.

Deferred income tax assets are recognized only to the extent that it is probable that a future taxable profit will be available against which the temporary differences can be utilized.

Deferred income tax is provided on temporary differences arising on investments in subsidiaries and associates, except for deferred income tax liability where the timing of the reversal of the temporary difference is controlled by the Group and it is probable that the temporary difference will not reverse in the foreseeable future.

Deferred income tax assets and liabilities are offset when there is a legally enforceable right to offset the current tax assets against current tax liabilities, and when the deferred income taxes assets and liabilities relate to the income taxes levied by the same taxation authority on either the same tax entity or different taxable entities where there is an intention to settle the balances on a net basis.

The items in the financial statements that include significant accounting estimates and accounting policies that require judgment

Deferred taxes

For the recognition of deferred tax assets for tax losses and other items, the management assesses the amount of a probable future taxable profit against which unused tax assets can be utilized. Actual profits may differ from the forecasts and in such cases, the change will affect the taxes in future periods.

4.5 DEFINED BENEFIT PENSION PLANS AND EMPLOYEE BENEFITS

The Group has several defined benefit pension plans and other employee benefit obligations. The main defined benefit pension plans are in Finland, Sweden, Germany, the UK and Norway.

Finland

The Group's most significant defined benefit plan is in Finland, through Pension Fund Neliapila, which takes care of part of some employees' supplementary pension benefits. The Pension Fund Neliapila covers employees whose employment with Kemira began before January 1, 1991, meaning that the fund is closed to new employees. The plan is a final average pay pension plan relating to supplementary pension benefits. At the end of 2019, the obligations of Pension Fund Neliapila totaled EUR 215.9 million (212.3) and assets of the plan totaled EUR 267.5 million (272.6).

Pension Fund Neliapila's supplementary benefit includes old-age pensions, disability pensions, survivors' pensions and funeral grants. The aggregated pension benefit is 66 percent of the pension salary. To qualify for a full pension, an employee must have accrued a pensionable service of 25 years. The supplementary pension benefits is the difference between the aggregated and compulsory pension benefits.

Sweden

In Sweden, there is a defined benefit pension plan called the ITP 2 plan for white-collar employees. To qualify for a full pension, an employee must have a projected period of pensionable service, from the date of entry until retirement age, of at least 30 years. The pension arrangements comprise the normal retirement pension, complementary retirement pensions and a survivors' pension. In addition, Kemira must have credit insurance from PRI Pensionsgaranti Mutual Insurance Company for the ITP 2 plan pension liability. At the end of 2019, the defined benefit obligations in Sweden totaled EUR 52.3 million (47.1).

ASSETS AND LIABILITIES OF DEFINED BENEFIT PLANS RECOGNIZED IN THE BALANCE SHEET

EUR million	2019	2018
Present value of defined benefit obligations	323.5	306.7
Fair value of plans' assets	-282.9	-287.9
Surplus (-) / Deficit (+)	40.6	18.7
The effect of asset ceiling	0.9	0.7
Net receivables (-) / liabilities (+) of defined benefit plans recognized in the Balance Sheet	41.5	19.4
Liabilities of defined benefit plans	93.3	81.2
Receivables of defined benefit plans	-51.8	-61.8
Net receivables (-) / liabilities (+) of defined benefit plans recognized in the Balance Sheet	41.5	19.4
AMOUNTS OF DEFINED BENEFIT PLANS RECOGNISED IN THE INCOME STATEMENT		
Service costs	3.1	2.7
Net interest cost [1]	0.9	1.0
Defined benefit plans' expenses (+) / income (-) in the Income Statement	3.9	3.7

1) Net interest costs are presented in net finance costs, in the Consolidated Income Statement.

DEFINED BENEFIT PLANS RECOGNIZED IN THE OTHER COMPREHENSIVE INCOME

EUR million	2019	2018
Items resulting from remeasurements of defined benefit plans [2]		
Actuarial gains (-) / losses (+) in defined benefit obligations arising from changes in demographic assumptions	-0.1	0.1
Actuarial gains (-) / losses (+) in defined benefit obligations arising from changes in financial assumptions [3]	26.8	-13.7
Actuarial gains (-) / losses (+) in defined benefit obligations arising from experience based assumptions	0.6	-4.3
Actuarial gains (-) / losses (+) in plan assets [3]	-21.1	4.6
Effect from asset ceiling	0.2	0.0
Defined benefit plans' expenses (+) / income (-) in the other comprehensive income	6.3	-13.3

2) The remeasurements of defined benefit plans are included in the Statement of Comprehensive Income as part of other comprehensive income. The item has been disclosed net of tax and the related income tax is disclosed in Note 2.8. Other comprehensive income.

3) In 2019 and 2018, the actuarial gains and losses are mainly due to return on assets and change in the discount rate in Pension Fund Neliapila.

CHANGES IN PLAN ASSETS OVER THE PERIOD IN DEFINED BENEFIT PLANS

EUR million	2019	2018
Defined benefit obligation on Jan 1	306.7	343.9
Current service costs	2.6	2.3
Interest costs	5.4	5.2
Actuarial losses (+) / gains (-)	27.3	-17.9
Exchange differences on foreign plans	-0.3	-2.2
Benefits paid	-17.7	-18.5
Transfers to DC component [4]	0.0	-6.1
Past service costs	0.0	0.0
Other items	-0.5	0.1
Present value of defined benefit obligations on Dec 31	323.5	306.7

CHANGES IN PLAN ASSETS OVER THE PERIOD IN DEFINED BENEFIT PLANS

EUR million	2019	2018
Fair value on Jan 1	287.9	310.4
Interest income	4.5	4.2
Contributions	0.6	0.5
Return of surplus assets [4]	-15.0	0.0
Actuarial losses (-) / gains (+)	21.1	-4.6
Exchange differences on foreign plans	0.5	-0.5
Benefits paid	-14.4	-15.5
Transfers to DC component [4]	-1.4	-6.5
Other items	-0.8	-0.2
Fair value of plan assets on Dec 31	282.9	287.9

4) In Canada, the defined benefit (DB) pension plan has been converted to a defined benefit contribution plan. DB pension obligations have been transferred to an insurance company. Due to the DB plan surplus position, the winding up of the DB plan has generated a settlement loss in profit or loss of EUR 0.2 million in the 2018 Financial Statements.

5) In Q1/2019, Pension Fund Neliapila paid to a surplus return of EUR 15 million to Kemira Group companies.

PLAN ASSETS BY ASSET CATEGORY IN DEFINED BENEFIT PLANS

EUR million	2019	2018
Interest rate investments and other assets	174.3	224.9
Shares and share funds	83.3	38.2
Properties occupied by the Group	23.7	23.7
Kemira Oyj's shares	1.5	1.1
Total assets	282.9	287.9

The Finnish Pension Fund Neliapila has most of the defined benefit plan's assets. At the end of 2019, the Pension Fund Neliapila's assets amounted to EUR 267.5 million (272.6), which consisted of interest rate investments and other assets of EUR 162.6 million (212.5), shares and share funds of EUR 79.8 million (35.2), properties of EUR 23.7 million (23.7) and Kemira Oyj´s shares of EUR 1.5 million (1.1). In the Pension Fund Neliapila, the investment position is managed within an asset-liability matching (ALM) framework that has been developed to combine long-term investments in line with the obligations under the pension plan. In Pension Fund Neliapila, a market risk can be considered a significant investment risk. The market risk arising from cyclical fluctuations of the financial market, is managed by ensuring that the investment position is sufficiently diversified.

The income (+) / expense (-) of the actual returns on the plan assets of the Group's defined benefit plan were EUR 25.6 million (-0.4).

SIGNIFICANT ACTUARIAL ASSUMPTIONS

%	2019	2018
Discount rate	0.8–3.1	1.6–3.1
Inflation rate	1.2–3.0	1.1–2.5
Future salary increases	1.2–2.5	1.4–2.8
Future pension increases	0.7–2.3	0.8–2.5

The significant assumptions used in calculating the obligations of the Finnish Pension Fund Neliapila were as follows: discount rate 0.8% (1.6%), inflation rate 1.2% (1.4%), future salary increases 1.2% (1.4%) and future pension increases 1.5% (1.7%).

Sensitivity analysis

The sensitivity analysis is based on keeping other assumptions constant when one assumption is changed. In practice, this is unlikely to occur and changes in some of the assumptions may correlate with each other. When calculating the sensitivity of the defined benefit obligation to significant actuarial assumptions, the same method has been applied as when calculating the pension liability recognized within the balance sheet.

If the discount rate would be 0.5 percentage points lower in all of the significant countries, the defined benefit obligation would increase by EUR 19.8 million (6.1%), if all other assumptions were held constant.

SENSITIVITY ANALYSIS - PENSION FUND NELIAPILA IN FINLAND

	Defined benefit obligation		Impact on defined benefit obligation	
EUR million	2019	2018	2019	2018
Discount rate 0.8% (2018: 1.6%)	215.9	212.3		
Discount rate +0.5%	203.9	200.8	-5.6%	-5.4%
Discount rate -0.5%	229.2	225.0	6.2%	6.0%
Future pension increases 1.5% (2018: 1.7%)	215.9	212.3		
Future pension increases +0.5%	227.8	223.6	5.5%	5.4%
Future pension increases -0.5%	205.0	201.9	-5.0%	-4.9%

A change in mortality assumption in which life expectancy is increased by one year will increase the defined benefit obligation by EUR 9.9 million (4.6%).

SENSITIVITY ANALYSIS - ITP 2 PENSION PLAN IN SWEDEN

	Defined benefit obligation		Impact on defined benefit obligation	
EUR million	2019	2018	2019	2018
Discount rate 1.4% (2018: 2.3%)	52.3	47.1		
Discount rate +0.5%	48.3	43.7	-7.6%	-7.2%
Discount rate -0.5%	56.9	51.0	8.8%	8.3%
Future salary increases 2.3% (2018: 2.5%)	52.3	47.1		
Future salary increases +0.5%	53.5	48.2	2.3%	2.3%
Future salary increases -0.5%	51.2	46.1	-2.1%	-2.1%

A change in mortality assumption in which life expectancy is increased by one year will increase the defined benefit obligation by EUR 2.4 million (4.6%).

Expected contributions to the defined benefit plans for the year ending on December 31, 2020, are EUR 3.1 million.

The Group's accounting policies

Defined benefit pension plans and employee benefits
The Group has different post-employment schemes, including both defined contribution and defined benefit pension plans in accordance with the local legislation and practices of the countries in which it operates. Pension plans are generally funded through contributions to pension insurance companies or a separate pension fund.

A defined contribution plan is a pension plan under which the Group pays fixed contributions into a separate entity. The Group has no legal or constructive obligations to pay further contributions if the fund does not hold sufficient assets to pay all employees the benefits relating to employee service in the current and prior periods. A defined benefit plan is a pension plan that is not a defined contribution plan.

Typically, defined benefit plans define an amount of pension benefit that an employee will receive on retirement, usually dependent on one or more factors such as their compensation level and years of service.

The liability recognized in the balance sheet in respect to the defined benefit pension plans is the present value of the defined benefit obligation at the end of the reporting period less the fair value of plan assets. The defined benefit obligation is calculated annually by independent actuaries using the projected unit credit method. The present value of the defined benefit obligation is determined by discounting the estimated future cash outflows using interest rates of high-quality corporate bonds that are denominated in the currency in which the benefits will be paid, and with their terms to maturity approximating to the terms of the related pension obligation. In countries where there is no deep market in such bonds, the market rates for government bonds are used.

Actuarial gains and losses arising from experience adjustments and changes in actuarial assumptions are charged or credited to equity in other comprehensive income in the period in which they arise.

Current service costs are included in the Consolidated Income Statement in the employee benefit expenses and net interest costs on finance income and finance expense. Past service costs are recognized immediately in profit or loss.

For defined contribution plans, the Group pays contributions to publicly or privately administered pension insurance plans on a mandatory, contractual or voluntary basis. The Group has no further payment obligations once the contributions have been paid. The contributions are recognized as employee benefit expenses when they are due. Prepaid contributions are recognized as an asset to the extent that a cash refund or a reduction in the future payments is available.

The items in the financial statements that include significant accounting estimates and accounting policies that require judgment

Defined benefit pension plans
Determining pension liabilities under defined benefit pension plans includes a number of actuarial assumptions, and significant changes in these assumptions may affect the amounts of pension liabilities and expenses. Actuarial calculations include assumptions by the management, such as the discount rate and assumptions of salary increases and the termination of employment contracts. The pension liability is calculated by independent actuaries.

4.6 PROVISIONS

EUR million	Personnel related provisions	Restructuring provisions [1]	Environmental provisions [2]	Other provisions	Total
Non-current provisions					
On January 1, 2019	1.6	0.4	19.9	6.6	28.6
Exchange rate differences	0.0	0.0	0.0	0.0	0.0
Additional provisions and increases in existing provisions	0.1	0.0	6.5	1.1	7.7
Used during the financial year	-0.1	0.0	-1.0	-0.5	-1.6
Unused provisions reversed	0.0	0.0	0.0	-4.0	-4.0
Reclassification	0.1	-0.1	-1.6	0.0	-1.6
On December 31, 2019	1.7	0.3	23.8	3.2	29.1
Current provisions					
On January 1,2019	5.6	1.2	2.4	0.0	9.2
Exchange rate differences	0.0	0.0	0.0	0.0	0.0
Additional provisions and increases in existing provisions	3.3	0.0	4.4	11.5	19.1
Used during the financial year	-6.6	0.0	-0.1	0.0	-6.7
Unused provisions reversed	-0.4	-0.1	-0.1	0.0	-0.5
Reclassification	0.0	-1.0	2.6	0.0	1.6
On December 31, 2019	1.9	0.1	9.1	11.5	22.6

1) Restructuring provisions include EUR 1.0 million adjustment related to the adoption of the IFRS 16 Leases standard on January 1, 2019. Further information regarding the standard change is available in Note 1 Group Accounting Policies.

2) The Group's operations in chemical industry are governed by numerous international agreements and regional and national legislation all over the world. The Group treats its environmental liabilities and risks according to established internal principles and procedures. In 2019, provisions for environmental remediation totaled EUR 32.9 million (22.3). The biggest provisions relate to site closures and reconditioning of the sediment of a lake in Vaasa, Finland.

EUR million	2019	2018
Breakdown of the total amount of provisions		
Non-current provisions	29.1	29.6
Current provisions	22.6	9.2
Total	51.7	38.7

The Group's accounting policies

Provisions

Provisions for restructuring costs, personnel related costs, environmental obligations, legal claims, and onerous contracts are recognized when the Group has a present legal or constructive obligation as a result of past events, and it is probable that an outflow of resources will be required to settle the obligation, and a reliable estimate of the amount of this obligation can be made. A restructuring provision is recognized when there is a detailed and appropriate plan prepared for it and the implementation of the plan has begun or has been notified to those whom the restructuring concerns.

The amount recognized as a provision is the present value of the expenditure expected to be required to settle the obligation on the balance sheet date using a pre-tax interest rate that reflects current market assessments of the time value of money and the risks specific to the obligation.

The items in the financial statements that include significant accounting estimates and accounting policies that require judgment

Provisions

Recognizing provisions requires the management's estimates, since the precise amount of obligations related to the provisions is not known when preparing the Financial Statements.

Kemira

5. CAPITAL STRUCTURE AND FINANCIAL RISKS

5.1 CAPITAL STRUCTURE

EUR million	2019	2018
Equity	1,231.0	1,202.5
Total assets	2,891.0	2,763.8
Gearing, % 1)	66	62
Equity ratio, % 2)	43	44

1) The definition of the key figure for Gearing is 100 x Interest-bearing net liabilities / Total equity.
2) The definition of the key figure for the Equity ratio is 100 x Total equity / (Total assets - prepayments received).

INTEREST-BEARING NET LIABILITIES

EUR million	Note	2019	2018
Non-current interest-bearing liabilities	5.3.	737.9	646.3
Current interest-bearing liabilities	5.3.	216.6	240.0
Interest-bearing liabilities		954.5	886.3
Cash and cash equivalents	5.4.	143.1	144.9
Interest-bearing net liabilities		811.4	741.4

Quarterly information on interest-bearing net liabilities is disclosed in the section on the Reconciliation of IFRS figures.

Kemira aims at above-the-market revenue growth with an operative EBITDA margin of 15–17%. The gearing target is below 75%. (Before the adoption of the IFRS 16 accounting change as of January 1, 2019, the financial targets were: Kemira aims at above-the-market revenue growth with an operative EBITDA margin of 14–16%. The gearing target is below 60%.) The revolver credit facility agreement contains a covenant according to which company gearing must be below 115%.

The Board of Directors proposes a per-share dividend of EUR 0.56 for 2019 (0.53), corresponding to a dividend payout ratio of 78% (91%). Kemira's dividend policy aims at paying a stable and competitive dividend.

INTEREST-BEARING NET LIABILITIES CONNECTED IN CASH FLOW STATEMENTS

EUR million	Non-current interestbearing liabilities inclu-ding payments of non-current portion	Current interest-bearing liabilities	Interest-bearing liabilities total	Cash and cash equivalents	Interest-bearing net liabilities
Net book value on Jan 1, 2019 1)	883.1	129.5	1,012.6	144.9	867.7
Change in net liabilities with cash flows					
Proceeds from non-current liabilities (+)	40.1	—	40.1	—	40.1
Payments of non-current liabilities (-)	-110.3	—	-110.3	—	-110.3
Payments of lease liabilities (-)	-28.4	0.0	-28.4	—	-28.4
Proceeds from current liabilities (+) and payments (-)	—	2.9	2.9	—	2.9
Change in cash and cash equivalents	—	—	—	-3.4	3.4
Change in net liabilities without cash flows					
Increases in lease liabilities (+)	36.1	—	36.1	—	36.1
Effect on change in exchange gains and losses	-0.5	0.6	0.1	1.5	-1.5
Other changes without cash flows	1.1	0.2	1.4	—	1.4
Net book value on Dec 31, 2019	821.3	133.2	954.5	143.1	811.4

EUR million	Non-current interestbearing liabilities including payments of non-current portion	Current interest-bearing liabilities	Interest-bearing liabilities total	Cash and cash equivalents	Interest-bearing net liabilities
Net book value on Jan 1, 2018	740.1	120.4	860.5	166.1	694.4
Change in net liabilities with cash flows					
Proceeds from non-current liabilities (+)	96.2	—	96.2	—	96.2
Payments of non-current liabilities (-)	-69.2	—	-69.2	—	-69.2
Proceeds from current liabilities (+) and payments (-)	—	10.3	10.3	—	10.3
Change in cash and cash equivalents	—	—	—	-21.2	21.2
Change in net liabilities without cash flows					
Effect on change in exchange gains and losses	-3.3	-0.9	-4.2	-0.1	-4.1
Other changes without cash flows	-7.1	-0.2	-7.3	0.1	-7.4
Net book value on Dec 31, 2018	756.8	129.5	886.3	144.9	741.4

1) Net book value on 1.1.2019 includes EUR 126.3 million adjustment related to the adoption of the IFRS 16 Leases standard on January 1, 2019. Further information regarding the standard change is available in Note 1.

The Group's accounting policies

Interest-bearing liabilities and cash and cash equivalents

The accounting policies for interest-bearing liabilities and cash and cash equivalents are described in Note 5.4. Financial assets and liabilities by measurement categories.

Dividend distribution

Any dividend proposed by the Board of Directors is not deducted from distributable equity until it has been approved by the Annual General Meeting.

5.2 SHAREHOLDERS' EQUITY

SHARE CAPITAL AND TREASURY SHARES

EUR million	Number of shares outstanding (1,000)	Number of treasury shares (1,000)	Number of shares (1,000)	Book value of share capital	Book value of treasury shares
January 1, 2019	152,510	2,832	155,343	221.8	19.1
Treasury shares issued to the participants in the long-term share incentive plan 2018	141	-141	—	—	-1.0
Treasury shares issued to the Board of Directors	11	-11	—	—	-0.1
The shares returned by participants from the long-term share incentive plans	-13	13	—	—	0.1
December 31, 2019	152,649	2,693	155,343	221.8	18.1
January 1, 2018	152,354	2,989	155,343	221.8	20.1
Treasury shares issued to the participants in the long-term share incentive plan 2017	149	-149	—	—	-1.0
Treasury shares issued to the Board of Directors	10	-10	—	—	-0.1
The shares returned by participants from the long-term share incentive plan 2017	-3	3	—	—	0.0
December 31, 2018	152,510	2,832	155,343	221.8	19.1

Kemira Oyj has one class of shares. Each share entitles its holder to one vote at the Annual General Meeting. On December 31, 2019, the share capital was EUR 221.8 million and the number of shares was 155,342,557 including 2,693,111 treasury shares. Under the Articles of Association of Kemira Oyj, the company does not have a minimum or maximum share capital or a par value for a share. All issued shares have been fully paid.

Kemira had possession of 2,693,111 (2,832,297) treasury shares on December 31, 2019. The average share price of the treasury shares was EUR 6.73 and they represented 1.7% (1.8%) of the share capital, and the aggregate number of votes conferred by all shares. The aggregate par value of the treasury shares is EUR 3.8 million.

Share premium

The share premium is a reserve accumulated through subscriptions that are entitled by the management stock option program of 2001. This reserve is based on the old Finnish Companies Act (734/1978), and the value of reserve will not change anymore.

Fair value reserves

The fair value reserve is a reserve accumulated based on other shares measured at fair value and hedge accounting.

Other reserves

Other reserves originate from local legal requirements. On December 31, 2019, other reserves were EUR 3.8 million (3.9).

Unrestricted equity reserve

The unrestricted equity reserve includes other equity type investments and the subscription price of shares to the extent that they will not, based on a specific decision, be recognized in share capital.

Exchange differences

The foreign currency exchange differences arise from the translation of foreign subsidiaries' financial statements. Additionally, loans have been granted to some foreign subsidiaries, and the exchange differences of these have been included in foreign currency exchange differences.

The Group's accounting policies

Treasury shares

Purchases of own shares (treasury shares), including the related costs, are deducted directly from equity in the Consolidated Financial Statements.

5.3. INTEREST-BEARING LIABILITIES

MATURITY OF INTEREST-BEARING LIABILITIES

2019, EUR million	2020	2021	2022	2023	2024	2025 -	Book value, total
Loans from financial institutions	55.0	—	—	148.5	—	130.2	333.7
Bonds	—	—	150.0	—	195.7	—	345.7
Lease liabilities	28.4	24.0	16.8	13.9	8.7	42.4	134.1
Other non-current liabilities	—	1.6	—	6.1	—	—	7.7
Other current liabilities	133.0	—	—	—	—	—	133.0
Total amortizations of interest-bearing liabilities	216.5	25.6	166.8	168.5	204.4	172.6	954.5

2018, EUR million	2019	2020	2021	2022	2023	2024 -	Book value, total
Loans from financial institutions	10.4	55.4	—	—	148.1	90.0	303.9
Bonds	100.0	—	—	150.0	—	194.8	444.8
Finance lease liabilities	0.0	0.0	—	—	—	—	0.1
Other non-current liabilities	—	1.8	—	—	6.1	—	7.9
Other current liabilities	129.5	—	—	—	—	—	129.5
Total amortizations of interest-bearing liabilities	240.0	57.2	0.0	150.0	154.2	284.8	886.3

At the year end 2019, the Group's interest-bearing net liabilities were EUR 811.4 million (741.4). For more information, see Note 5.1. Capital structure.

MATURITY OF NON-CURRENT INTEREST-BEARING LIABILITIES BY CURRENCIES

2019 Currency, EUR million	2020	2021	2022	2023	2024	2025 -	Book value, total
EUR	63.5	8.4	153.5	150.8	197.5	103.1	676.7
USD	14.4	13.5	11.4	10.6	6.1	55.3	111.4
GBP	0.3	0.2	0.1	0.1	0.1	10.4	11.2
Other	5.3	3.5	1.8	7.1	0.8	3.7	22.2
Total	83.5	25.6	166.8	168.5	204.4	172.6	821.6

2018 Currency, EUR million	2019	2020	2021	2022	2023	2024 -	Book value, total
EUR	110.2	57.2	—	150.0	148.1	284.8	750.3
USD	—	—	—	—	—	—	—
Other	0.2	—	—	—	6.1	—	6.3
Total	110.4	57.2	0.0	150.0	154.2	284.8	756.6

FINANCE LEASE AGREEMENTS UNDER IAS 17 STANDARD

EUR million	2018
Acquisition cost - capitalized finance leases	3.5
Accumulated depreciation	-3.1
Book value on Dec 31	0.4
Maturity of minimum lease payments	
No later than 1 year	0.0
1-5 years	0.0
Later than 5 years	—
Total minimum lease payments	0.1
Present value of finance lease liabilities	
Total minimum lease payments	0.1
Future finance charges on finance leases	0.0
Total	0.1
Maturity of the present value of finance lease liabilities	
No later than 1 year	0.0
1-5 years	0.0
Later than 5 years	—
Total present value of finance lease liabilities	0.1

The Group leases buildings and constructions, machinery and equipment and other property, plant and equipment under finance lease agreements. Commitments related to other lease agreements than finance leases are disclosed in Note 7.1. Commitments and contingent liabilities.

The Group's accounting policies

Finance lease under IAS 17 standard

Leases involving tangible assets, in which the Group acts as a lessee, are classified as finance leases if all of the risks and rewards of ownership transfer substantially to the Group.

At the commencement of the lease term, the finance lease assets are recognized at the lower of the fair value of the leased asset and the present value of the minimum lease payments. These assets and related rental obligations are presented as part of the Group's non-current assets and interest-bearing liabilities. In respect to the finance lease agreements, depreciation on the leased assets and interest expenses from the associated liability are shown in the income statement. Rents paid on the basis of operating leases are expensed on a straight-line basis over the lease terms.

When the Group is a lessor, it recognizes assets held under the finance lease as receivables in the balance sheet. Assets held under operating leases are included in property, plant and equipment.

Also arrangements that are not leases in their legal form, but convey the rights to use assets in return for a payment or series of payments are treated as leases.

5.4. FINANCIAL ASSETS AND LIABILITIES BY MEASUREMENT CATEGORIES

FINANCIAL ASSETS

		2019					2018				
		Book values	Fair values				Book values	Fair values			
EUR million	Note		Level 1	Level 2	Level 3	Total		Level 1	Level 2	Level 3	Total
Fair value through profit and loss	5.6.										
Derivatives not qualifying for hedge accounting		1.7	—	1.7	—	1.7	2.1	—	2.1	—	2.1
Fair value through other comprehensive income	5.6.										
Derivatives qualifying for hedge accounting											
Cash flow hedges		8.2	—	8.2	—	8.2	27.8	—	27.8	—	27.8
Fair value hedges		—	—	—	—	—	1.7	—	1.7	—	1.7
Other shares	3.5.										
The shares of Pohjolan Voima Group		243.4	—	—	243.4	243.4	226.9	—	—	226.9	226.9
Other non-listed shares		1.7	—	—	1.7	1.7	1.4	—	—	1.4	1.4
Amortized cost											
Other non-current assets [1]		2.0	—	2.0	—	2.0	2.3	—	2.3	—	2.3
Current interest-bearing loan receivables [1]		0.2	—	0.2	—	0.2	0.2	—	0.2	—	0.2
Trade receivables [1]	4.2.	308.4	—	308.4	—	308.4	307.3	—	307.3	—	307.3
Cash and cash equivalents											
Cash in hand and at bank accounts		132.4	—	132.4	—	132.4	135.6	—	135.6	—	135.6
Deposits and money market investments [2]		10.7	—	10.7	—	10.7	9.3	—	9.3	—	9.3
Total financial assets		708.7	—	463.6	245.2	708.7	714.7	—	486.3	228.4	714.7

1) In 2019, other non-current assets and current interest-bearing loan receivables include expected credit losses of EUR 0.4 million in accordance with the IFRS 9 standard. Trade receivables include expected credit losses of EUR 0.6 million. Trade receivables are disclosed in more detail in Note 4.2. Trade receivables and other receivables.

2) Deposits and money market investments comprise bank deposits and other liquid investments with a maximum original maturity of three months.

FINANCIAL LIABILITIES

		2019					2018				
		Book values	Fair values				Book values	Fair values			
EUR million	Note		Level 1	Level 2	Level 3	Total		Level 1	Level 2	Level 3	Total
Fair value through profit and loss	5.6.										
Derivatives not qualifying for hedge accounting		3.8	—	3.8	—	3.8	2.2	—	2.2	—	2.2
Fair value through other comprehensive income	5.6.										
Derivatives qualifying for hedge accounting											
Cash flow hedges		0.4	—	0.4	—	0.4	1.3	—	1.3	—	1.3
Amortized cost											
Interest-bearing liabilities	5.3.										
Non-current loans from financial institutions		278.7	—	290.2	—	290.2	293.1	—	314.2	—	314.2
Current portion		55.0	—	57.0	—	57.0	10.2	—	8.0	—	8.0
Bonds		345.7	—	362.5	—	362.5	345.2	—	357.0	—	357.0
Current portion		—	—	—	—	—	100.0	—	102.6	—	102.6
Non-current leasing liabilities		105.7	—	105.7	—	105.7	—	—	—	—	—
Current portion		28.4	—	28.4	—	28.4	—	—	—	—	—
Other non-current liabilities		7.7	—	8.0	—	8.0	8.0	—	—	—	0.0
Current portion		—	—	—	—	—	0.2	—	—	—	0.0
Current loans from financial institutions		133.2	—	138.0	—	138.0	129.5	—	136.0	—	136.0
Non-interest-bearing liabilities											
Other non-current liabilities		8.3	—	8.3	—	8.3	29.0	—	29.0	—	29.0
Other current liabilities		25.4	—	25.4	—	25.4	27.4	—	27.4	—	27.4
Trade payables	4.3.	188.2	—	188.2	—	188.2	179.9	—	179.9	—	179.9
Total financial liabilities		1,180.5	—	1,215.9	—	1,215.9	1,126.0	—	1,157.6	—	1,157.6

There were no transfers between levels 1–3 during the financial year.

Level 3 specification, financial assets EUR million	2019	2018
Net book value on Jan 1	228.4	235.8
Effect on other comprehensive income	16.6	-7.5
Increases	0.3	—
Decreases	—	—
Net book value on Dec 31	245.2	228.4

The Group's accounting policies

When a financial asset or a financial liability is initially recognized on the trade date, it is measured at cost, which equals the fair value of the consideration given or received.

Financial Assets

The Group's financial assets are classified for subsequent measurement as financial assets at fair value through profit or loss, at amortized cost and at fair value through other comprehensive income.

Category	Financial instrument
Fair value through profit or loss	Currency forward contracts, currency swaps, interest rate swaps, electricity forwards, electricity futures, electricity options, certificates of deposit and commercial papers
Amortized cost	Non-current loan receivables, cash in hand and at bank accounts, bank deposits, trade receivables and other receivables
Fair value through other comprehensive income	Other investments: shares; derivatives qualifying for hedge accounting (cash flow or fair value hedging)

Financial assets at fair value through income statements

All derivatives are recognized at fair value in the balance sheet. Fair value is the amount for which an asset could be exchanged or loans paid between knowledgeable, willing parties in an arm's length transaction. These derivative contracts to which hedge accounting in accordance with IFRS 9 is not applied are classified as financial assets at fair value through profit or loss. In the balance sheet, these derivative contracts are shown under prepaid expenses and accrued income and accrued expenses and prepaid income. Any gains or losses arising from changes in fair value are recognized through profit or loss on the transaction date.

Financial assets at amortized cost

Financial assets at amortized cost include non-current receivables carried at amortized cost using the effective interest rate method and accounting for any impairment.

Cash and cash equivalents

Cash and cash equivalents consist of cash in hand and cash in bank accounts, demand deposits and other short-term, highly liquid investments. Items classified as cash and cash equivalents have a maximum maturity of three months from the date of purchase. Credit facilities in use are included in current interest-bearing liabilities.

Financial assets at fair value through other comprehensive income

The accounting policy of Other shares is described in Notes 3.5. Other shares. The accounting treatment of change in the fair value of the derivatives qualifying for hedge accounting is presented in 5.6. Derivatives.

Impairment of financial assets

The Group assesses any impairment losses on its financial instruments on each balance sheet date. An impairment of a financial asset is recognized in accordance with the requirements of expected credit loss model of the IFRS 9 standard. For items measured at an amortized cost, the amount of the impairment loss equals the difference between the asset's carrying amount and the present value of estimated future cash flows from the receivable. This is discounted at the financial asset's original effective interest rate. For items measured at fair value, the fair value determines the amount of impairment. Impairment charges are recognized in the income statement.

The Group sells certain trade receivables to finance companies within the framework of limits stipulated in the agreement. The credit risk associated with these sold receivables and contractual rights to the financial assets in question are transferred from the Group on the selling date. The related expenses are recognized in the financial expenses.

Financial liabilities

Financial liabilities are classified as financial liabilities accounted at fair value through profit or loss, at amortized cost and at fair value through other comprehensive income. Financial liabilities at fair value through profit or loss include derivatives to which hedge accounting is not applied, whereas derivatives which are qualified for hedge accounting are booked at fair value through other comprehensive income.

Other financial liabilities are initially recognized in the balance sheet at the initial value of received net assets with direct costs deducted. Later, these financial liabilities are measured at amortized cost, and the difference between the received net assets and amortizations is recognized as an interest cost over the loan term. Changes in the fair value of loans under fair value hedge accounting are booked in the income statement together with the changes in the fair value of derivatives under fair value hedge accounting.

If the terms of a loan measured at amortized cost are modified and the loan is not derecognized, the gain or loss of the modification is booked in the income statement at the point of modification and amortized over the life of the modified loan. Profit or loss is equal to the difference between the present value of the cash flows under the original and modified terms discounted at the original effective interest rate.

Category	Financial instrument
Financial liabilities at fair value through profit or loss	Currency forward contracts and currency swaps, interest rate swaps, electricity forwards, electricity futures and electricity options
Amortized cost	Current and non-current loans, pension loans, bonds, lease liabilities and trade payables
Financial liabilities at fair value through other comprehensive income	Derivatives qualifying for hedge accounting (cash flow hedging)

The following levels are used to measure the fair values:

Level 1: Fair value is determined based on quoted market prices.

Level 2: Fair value is determined with valuation techniques. The fair value refers either to the value that is observable from the market value of elements of the financial instrument or the market value of corresponding financial instruments; or to the value that is observable by using commonly accepted valuation models and techniques if the market value can be reliably measured with them.

Level 3: Fair value is determined by using valuation techniques, which use inputs that have a significant effect on the recorded fair value and the inputs are not based on observable market data. Level 3 mainly includes the shares of Pohjolan Voima Group.

5.5 MANAGEMENT OF FINANCIAL RISKS

Kemira Group Treasury's objective is to ensure sufficient funding in the most cost efficient way, and to manage financial risks. Approved by the Board of Directors, treasury policy defines treasury management principles. The Board of Directors approves the annual Treasury plan and the maximum permissible financial risk levels.

Financial risk management aims to protect the Company from unfavorable changes in financial markets, thereby contributing to safeguarding the Company's profit performance and shareholders' equity and to ensure sufficient sources of finance. Management of financial risks is centralized in the Group Treasury, which uses for hedging purposes derivative instruments for which market values and risks can be monitored continuously and reliably.

Foreign exchange risk

Foreign currency transaction risk arises from currency flows, assets and liabilities denominated in currencies other than the domestic currency. Transaction risks arise from cash flows and balance sheet items where changes in exchange rates will have an impact on earnings and cash flows. Translation risk arises when the currency denominated income and balance sheet items of group companies located outside the euro area are consolidated into euro. The transaction risk is hedged mainly using foreign currency forwards.

The Group's most significant transaction currency risks arise from the Swedish krona, the Canadian dollar and the U.S. dollar. At the end of the year, the denominated exchange rate risk of the Swedish krona against the euro had an equivalent value of approximately EUR 43 million (50), the average hedging rate and hedging ratio being 10.68 and 72% (74%), respectively. The Canadian dollar purchases' denominated exchange rate risk against the U.S. dollar had an equivalent value of approximately EUR 30 million (-), the average hedging rate and ratio being 1.308 and 39 % (-), respectively, and Canadian dollar sales' denominated exchange risk against the US dollar had an equivalent value of approximately EUR 27 million (25), the average hedging rate and ratio being 1.327 and 44 % (24 %), respectively. The Canadian dollar's denominated exchange rate risk against the euro had an equivalent value of approximately EUR 25 million (15), the average hedging rate and hedging ratio being 1.50 and 52% (69%), respectively. The U.S. dollar denominated exchange rate risk was approximately EUR 91 million (24), the average hedging rate and hedging ratio being 1.128 and 47% (59%), respectively. In addition, Kemira is exposed to smaller transaction risks mainly in relation to the Chinese renminbi, the Brazilian real, the Norwegian krona, Polish zloty, Great Britain pound and the Russian ruble with the annual exposure in those currencies being approximately EUR 108 million.

	2019				2018			
Transaction exposure, the most significant currencies, EUR million	**SEK against EUR**	**CAD against USD**	**CAD against EUR**	**USD against EUR**	**SEK against EUR**	**CAD against USD**	**CAD against EUR**	**USD against EUR**
Operative cash flow forecast, net [1]	-43.0	-2.8	25.2	91.1	-49.7	25.4	14.7	24.4
Loans, net	-16.2	—	15.1	278.0	-9.3	—	10.3	327.3
Derivatives, operative cash flow hedging, net	28.7	0.0	-11.3	-31.6	34.2	-9.6	-9.9	-12.7
Derivatives, hedging of loans, net	16.3	—	-15.1	-22.3	8.8	—	-10.3	-76.1
Total	-14.2	-2.8	13.9	315.2	-16.0	15.8	4.8	262.9

1) Based on a12-month foreign currency operative cash flow forecast.

At the end of 2019, the foreign currency operative cash flow forecast for 2020 was EUR 344 million of which 44% was hedged (50%). The hedge ratio is monitored daily. A minimum of 40% and a maximum of 100% of the forecast flow must always be hedged. A 10 percent weakening of the Swedish krona against the euro, based on the exchange rates as of December 31, 2019 and without hedging, would increase EBITDA approximately EUR 4 million, whereas a 10 percent weakening of the Canadian dollar and the U.S. dollar without hedging would cause negative impacts of EUR 2 million and EUR 8 million on EBITDA, respectively. A corresponding increase in the exchange rates would have an approximately equal opposite impact.

On the balance sheet date, the market value of currency derivatives was EUR 0.6 million (0.2) and this was included in cash flow hedge accounting. Cash flow hedge accounting deals have been done to hedge highly probable currency flows.

The most significant translation risk currencies are the U.S. dollar, the Swedish krona, the Canadian dollar, the Brazilian real and Polish zloty.

Kemira's main equity items denominated in foreign currencies are in the Canadian dollar, the Swedish krona and U.S. dollar. The objective is to hedge the balance sheet risk by maintaining a balance between foreign currency denominated liabilities and assets, currency by currency. In hedging the net investment in its units abroad, Kemira monitors the equity ratio. Long-term loans and currency derivatives can be used for hedging net investments in foreign subsidiaries. These hedges do not apply to hedge accounting. Loans in U.S. dollars have been granted to some foreign subsidiaries, and currency differences have been included in foreign currency translation differences.

Interest rate risk

Kemira is exposed to interest rate risks when fixing interest rates of floating rate loans and through fair value changes of bonds and derivatives. A total of 87% of the Group's entire net debt portfolio was fixed at the end of 2019. This included lease liabilities due to the adoption of IFRS 16, and the effect of interest derivatives. In the previous year, fixed-rate loans accounted for 79% of the net debt portfolio without lease liabilities. The net financing cost of the Group was 4.4% (3.4%). The net financing cost is attained by dividing yearly net interest and other financing expenses, excluding exchange rate differences and dividends by the average interest bearing net debt figure for the corresponding period. The most significant impact on the net financing cost arises from variation in the interest rate levels of the euro, the U.S. dollar and the Chinese renminbi.

In accordance with the treasury policy, the Group's interest rate risk is measured with the duration which describes the average repricing moment of the loan portfolio excluding lease liabilities. The duration must be in the range of 6–60 months. The Kemira Group Treasury manages duration by borrowing with fixed and floating rate loans in addition to the interest rate derivatives. The duration of the Group's interest-bearing loan portfolio excluding lease liabilities was 26 months at the end of 2019 (31). Excluding the interest rate derivatives, the duration was 25 months (29).

The table below shows the time for interest rate fixing of the loan portfolio.

2019 Time to interest rate fixing, EUR million	<1 year	1–5 years	> 5 year	Total
Floating net liabilities	107.3	—	—	107.3
Fixed net liabilities [1]	130.0	350.0	90.0	570.0
Total	237.3	350.0	90.0	677.3

2018 Time to interest rate fixing, EUR million	<1 year	1–5 years	> 5 year	Total
Floating net liabilities	156.4	—	—	156.4
Fixed net liabilities	15.0	280.0	290.0	585.0
Total	171.4	280.0	290.0	741.4

1) Excluding lease liabilities

On the balance sheet date, the average interest rate of the loan portfolio excluding interest rate hedges was approximately 1.9% (1.9%). If interest rates rose by one percentage point on January 1, 2020, the resulting interest expenses before taxes incurred by the Group over the next 12 months would increase by approximately EUR 1.0 million (1.2). Consequently, a decrease of one percentage point would decrease interest expenses by EUR 0.1 million. During 2020, Kemira will reprice 35% (32%) of the Group's net debt portfolio, including derivatives.

All interest rate swaps are used to hedge the Group's loan portfolio. On the balance sheet date, outstanding interest rate derivatives did not fulfill the criteria for hedge accounting set out in IFRS 9, and the ineffective portion of market value of EUR 0.5 million (-) was booked from Other comprehensive income to finance expenses. In 2018, market value of interest rate derivatives related to cash flow hedging was EUR -1.3 million and fair value hedges was EUR 1.7 million. One percentage point increase in interest rates would positively affect market valuation of interest rate swaps of EUR 0.2 million (0.5).

Electricity price risk

The price of electricity varies greatly according to the market situation. Kemira Group takes hedging measures with respect to its electricity purchases in order to even out the raw material costs. In line with its hedging policy, the Group hedges its existing sales agreements in such a way that the hedges cover the commitments made. The company primarily uses electricity derivatives on the power exchange as hedging instruments. Currency and regional price risks connected with hedges are hedged by making agreements in Finland, mainly in HELEUR amounts and, in Sweden, mainly in MALSEK amounts. The outstanding electricity derivatives are treated in accordance with cash flow hedge accounting, as discussed above. The forecast for physical deliveries of the underlying assets, or purchases, are not recorded until the delivery period. A +/- 10% change in the market price of electricity hedging contracts would impact the valuation of these contracts EUR +/- 6.0 million (+/- 8.3). This impact would be mainly in equity.

Credit risk

The Group is exposed to credit risks through commercial accounts receivables, as bank account balances, deposits, short-term investments and derivatives.

The Group's treasury policy defines the credit rating requirements for counterparties of investment activities and derivative agreements as well as the related investment policy. The Group seeks to minimize its counterparty risk by dealing solely with counterparties that are financial institutions with a solid credit rating, as well as by spreading agreements among them.

The counterparty risk in treasury operations is due to the fact that a contractual party to a financing transaction is not necessarily able to fulfill its contractual obligations. Risks are mainly related to investment activities and the counterparty risks associated with derivative contracts.

The Group Treasury approves the new banking relationships of subsidiaries. Financial institution counterparties, used by the Group Treasury, have a credit rating of at least an investment grade based on Standard & Poor's credit rating information. The maximum risk assignable to the Group's financial institution counterparties on the balance sheet date amounted to EUR 151.2 million (174.4). Kemira monitors its counterparty risk on a monthly basis by defining the maximum risk associated with each counterparty based on the market value of receivables.

Kemira has defined an approved limit for each financial institution. Credit risks associated with financing transactions did not result in credit losses during the financial year.

Kemira has a group wide credit policy related to commercial activities. According to the policy, each customer has a pre-defined risk category and credit limit. These are constantly monitored. Based on the customer evaluation, Kemira decides the applicable payment terms to minimize credit risks. Pre-approved payment terms have been defined at the group level. If necessary, securities and documentary credit, such as letters of credit, are applied. The group does not have any significant credit risk concentrations due to its extensive customer base across the world.

In the USA, Kemira has an accounts receivable purchase facility worth USD 60 million, enabling Group companies in the USA to sell certain account receivables to the counterparty. The credit risk of the accounts receivables is transferred to the financial institutions and 96.7% of the receivables transferred are derecognized from the balance sheet. The amount of outstanding receivables transferred, which also reflects the fair value of the receivables before the transfer was EUR 39.6 million (44.4) on December 31, 2019. The amounts recognized in the balance sheet are EUR 1.3 million (1.7) in assets and EUR 0.5 million (0.8) in liabilities.

Liquidity and refinancing risks

Kemira's liquidity is secured with cash and cash equivalents, account overdrafts and revolving credit facility. At the end of 2019, the Group's cash and cash equivalents stood at EUR 143.1 million (144.9), of which cash in bank accounts accounted for EUR 132.4 million (135.6) and bank deposits EUR 10.7 million (9.3). In addition, the Group has a revolving credit facility of EUR 400 million which will mature on April 17, 2024 with two one-year extension options. At the turn of the year 2019/2020, the revolving credit facility was undrawn.

The Group has a EUR 600 million domestic commercial paper program enabling it to issue commercial papers with a maximum maturity of one year. At the end of 2019, there were no commercial papers outstanding on the market.

Kemira manages its refinancing risk with a diversified loan portfolio. Long-term financing consists of bonds and bilateral loan agreements with several financial institutions. In addition, the Group had leasing liabilities in accordance with the IFRS 16 standard of EUR 134.1 million (0) at the end of the year.

According to Group treasury policy, the average maturity of outstanding loans excluding lease liabilities is targeted to be at least 3 years. In addition, the Group must have committed credit facilities to cover planned funding needs, the current portion of long term debt, commercial paper borrowings, and other uncommitted short-term loans in the next 12 months. The average maturity of debt excluding lease liabilities at the end of 2019 was 3.7 years.

LOAN STRUCTURE DIVIDED BY TYPE AND MATURITY

2019 Loan type, EUR million	Undrawn	2020	2021	2022	2023	2024	2025–	Total drawn
Loans from financial institutions	—	55.0	—	—	150.0	—	130.2	335.2
Bonds	—	—	—	150.0	—	200.0	—	350.0
Revolving credit facility	400.0	—	—	—	—	—	—	0.0
Lease liabilities	—	34.8	29.0	20.8	17.1	11.4	83.8	197.0
Commercial paper program	600.0	—	—	—	—	—	—	0.0
Other interest-bearing non-current liabilities	—	—	1.5	—	6.1	—	—	7.6
Other interest-bearing current liabilities	—	132.9	—	—	—	—	—	132.9
Total interest-bearing liabilities	1,000.0	222.8	30.5	170.8	173.2	211.4	214.0	1,022.8

2018 Loan type, EUR million	Undrawn	2019	2020	2021	2022	2023	2024–	Total drawn
Loans from financial institutions	40.0	10.4	55.4	—	—	150.0	90.0	305.9
Bonds	0.0	100.0	—	—	150.0	—	200.0	450.0
Revolving credit facility	400.0	—	—	—	—	—	—	0.0
Finance lease liabilities	—	0.0	0.0	—	—	—	—	0.1
Commercial paper program	600.0	—	—	—	—	—	—	0.0
Other interest-bearing non-current liabilities	—	—	1.8	—	—	6.1	—	7.9
Other interest-bearing current liabilities	—	129.5	—	—	—	—	—	129.5
Total interest-bearing liabilities	1,040.0	240.0	57.3	0.0	150.0	156.1	290.0	893.4

5.6 DERIVATIVE INSTRUMENTS

Nominal values, EUR million	Maturity structure 2020	2021	2022	2023	2019 Total	2018 Total
Currency derivatives						
Forward contracts	421.1	—	—	—	421.1	358.1
Inflow	228.0	—	—	—	228.0	224.8
of which cash flow hedges	45.1	—	—	—	45.1	11.3
Outflow	193.1	—	—	—	193.1	133.3
of which cash flow hedges	48.3	—	—	—	48.3	6.8
Interest rate derivatives						
Interest rate swaps	130.0	—	—	—	130.0	245.0
of which cash flow hedges	—	—	—	—	—	145.0
of which fair value hedges	—	—	—	—	—	100.0
Other derivatives						
Electricity contracts, bought (GWh)	999.0	657.0	367.9	96.4	2,120.3	2,278.0
Electricity forward contracts	999.0	657.0	367.9	96.4	2,120.3	2,278.0
of which cash flow hedges	999.0	657.0	367.9	96.4	2,120.3	2,278.0

Nominal values of the financial instruments do not necessarily correspond to the actual cash flows between the counterparties, and therefore individual items do not give a fair view of the Group's risk position.

Fair values, EUR million	2019			2018		
	Positive	Negative	Net	Positive	Negative	Net
Currency derivatives						
Forward contracts	2.7	-3.6	-0.9	2.3	-2.2	0.2
of which cash flow hedges	1.0	-0.4	0.6	0.2	—	0.2
Interest rate derivatives						
Interest rate swaps	—	-0.6	-0.6	1.7	-1.3	0.4
of which cash flow hedges	—	—	—	—	-1.3	-1.3
of which fair value hedges	—	—	—	1.7	—	1.7
Other derivatives						
Electricity forward contracts, bought	7.2	—	7.2	27.6	—	27.6
of which cash flow hedges	7.2	—	7.2	27.6	—	27.6

The Group's accounting policies

Derivatives

The fair values of currency, interest rate and commodity derivatives, as well as publicly traded shares are based on prices quoted in active markets on the balance sheet date. The value of other financial instruments measured at fair value is determined on the basis of valuation models using information available in the financial market.

All the derivatives are measured at their fair values on the balance sheet date. Changes in the value of forward contracts are calculated by measuring the contracts against the forward exchange rates on the balance sheet date and comparing them with the counter values calculated through the forward exchange rates on the date of entry into the forward contracts. The fair value of interest rate derivatives is determined using the market value of similar instruments on the balance sheet date. Other derivatives are measured at the market price on the balance sheet date.

Derivative assets are presented in the balance sheet as part of line item Trade receivables and other receivables. Derivative liabilities are presented in the balance sheet as part of line item Trade payables and other liabilities.

Hedge accounting

Hedge accounting is applied according to IFRS 9. This refers to a method of accounting aimed at allocating one or more hedging instruments in such a way that their fair value offsets, in full or in part, the changes in the fair value or cash flows of the hedged item. Hedged items must be highly probable. The Group applies hedge accounting for hedging interest rate risk, currency risk, commodity risk and fair value if interest rate swaps, electricity derivatives and foreign exchange derivatives meet hedge accounting criteria.

Hedge effectiveness is monitored as required by IFRS 9. Effectiveness refers to the capacity of a hedging instrument to offset changes in the fair value of the hedged item or cash flows from a hedged transaction, which are due to the realization of the risk being hedged. A hedging relationship is considered to be highly effective when the change in the fair value of the hedging instrument offsets changes in the cash flows attributable to the hedged items. Hedge effectiveness is assessed prospectively. Hedge effectiveness testing is repeated on each balance sheet date.

Hedge accounting is discontinued when the criteria for hedge accounting are no longer fulfilled. Gains or losses recognized in other comprehensive income and presented under equity are derecognized and transferred immediately in the income statement, if the hedged item is sold or falls due. However, gains or losses arising from changes in the fair value of those derivatives not fulfilling the hedge accounting criteria are recognized directly in the income statement.

At the inception of a hedge, the Group documents the existence of the economic relationship of the hedged item and hedging instrument, including the identification of the hedging instrument, the hedged item or transaction, the nature of the risk being hedged, the objectives of risk management and the strategy for undertaking hedging, as well as the description of how hedge effectiveness is assessed.

Cash flow hedging

Cash flow hedging is used to hedge against variability in cash flows attributable to a particular risk associated with a recognized asset or liability in the balance sheet or a highly probable forecast transaction. Currency, interest rate, and commodity derivatives are used as hedging instruments in cash flow hedging. Cash flow hedge accounting, specified in IFRS 9, is applied by the Group to only selected hedging items. Changes in the fair value of derivative instruments associated with cash flow hedge are recognized in other comprehensive income (including the tax effect) and presented under equity, providing that they fulfill the criteria set for hedge accounting and are based on effective hedging. The ineffective portion of the gain or loss on the hedging instrument is recognized under financial items in the income statement. Derivatives not fulfilling the hedge accounting criteria are recognized in financial items through profit or loss.

Fair value hedging

Fair value hedges are related to a fixed rate bond loan. Interest rate derivatives are used as instruments in fair value hedging. Change in fair value of the hedging derivative contracts are recognized in the income statement and the hedged item's book value is adjusted through profit or loss to the extent that the hedge is effective.

6. GROUP STRUCTURE

6.1 RELATED PARTIES

Parties are considered to be related if one party has the ability to control or exercise significant influence on the other party, or if the parties exercise joint control in making financial and operating decisions. The Group's related parties include the parent company, subsidiaries, associates, joint-ventures and the Pension Fund Neliapila. Related parties also include the members of the Board of Directors and the Group's Management Board, the CEO and his Deputy, and their immediate family members.

EMPLOYEE BENEFITS OF CEO, DEPUTY CEO AND MEMBERS OF MANAGEMENT BOARD

	Salaries and other benefits, EUR	Bonuses, EUR	Share-based payments, EUR 1)	2019 Total, EUR	2018 Total, EUR
CEO Jari Rosendal	707,620 4)	90,720	311,539	1,109,879	1,021,520
Deputy CEO Jukka Hakkila 2)	183,728	21,279	109,039	314,045	329,940
Other members of Management Board 3)	1,752,206	228,536	730,850	2,711,592	2,835,124
Total	2,643,554	340,535	1,151,428	4,135,516	4,186,584

1) Share-based incentive plans for the management and key personnel are disclosed in Note 2.3. Share-based payments.

2) Jukka Hakkila is not a member of the Management Board.

3) Other members of the Management Board who are employed by a Finnish Kemira company do not have any supplementary pension arrangements in addition to their statutory pensions. The members of the Management Board who are employed by a foreign Kemira company participate in the pension systems based on statutory pension arrangements and market practices in their local countries. The Kemira policy is that all new supplementary pension arrangements are defined contribution plans.

4) Including supplementary defined contribution pension.

Employment terms and conditions of the CEO

Remuneration of the CEO comprises a monthly salary including a car benefit and a mobile phone benefit as well as supplementary defined contribution pension and performance-based incentives. The performance-based incentives consist of an annual short-term bonus plan and a long-term share incentive plan. The annual short-term bonus plan is based on terms approved by the Board of Directors and the maximum bonus is 70% of the annual base salary. The long-term share incentive plan is based on the terms of the plan. The maximum reward is determined as a number of shares and a cash portion intended to cover taxes and the tax-related costs arising from the reward.

The CEO belongs to the Finnish Employees' Pension Act (TyEL) scheme, which provides pension security based on the years of service and earnings as stipulated by law. The CEO is also entitled to a supplementary defined contribution pension plan. The supplementary pension is defined as 20% of annual base salary. The retirement age of the CEO is 63 years.

A mutual termination notice period of six months applies to the CEO. The CEO is entitled to an additional severance pay of 12 months' salary, if the company terminates his service.

The board of directors' emoluments

On March 21, 2019, the Annual General Meeting decided that the Board of Directors' annual fee shall be paid as a combination of the company's shares and cash in such a manner that 40% of the annual fee is paid with the Kemira shares owned by the company or, if this is not possible, then with Kemira shares acquired from the securities market, and 60% is paid in cash. On May 8, 2019 the 10,864 shares owned by the company were distributed to the members of the Board of Directors.

There are no special terms or conditions associated with owning the shares received as the annual fee. The members of the Board of Directors are not eligible for any short-term bonus plans, long-term share incentive plans or supplementary pension plans of Kemira Oyj.

The meeting fees are paid in cash and travel expenses are paid according to Kemira's travel policy.

MEMBERS OF THE BOARD OF DIRECTORS

	Number of shares	Share value, EUR	Cash compen-sation, EUR [5)]	2019 Total, EUR	2018 Total, EUR
Jari Paasikivi, Chairman	2,993	37,224	64,976	102,200	91,489
Kerttu Tuomas, Vice Chairman	1,789	22,250	40,550	62,800	57,087
Wolfgang Büchele	1,431	17,797	37,003	54,800	48,351
Shirley Cunningham	1,431	17,797	47,803	65,600	57,951
Timo Lappalainen	1,789	22,250	42,950	65,200	60,687
Kaisa Hietala	1,431	17,797	34,003	51,800	47,151
Total	10,864	135,114	267,286	402,400	362,716

5) Includes both annual fees and meeting fees.

TRANSACTIONS CARRIED OUT WITH RELATED PARTIES

EUR million	2019	2018
Revenue		
Associated companies	1.1	1.4
Leases, purchases of goods and services		
Associated companies	0.0	0.0
Pension Fund Neliapila	1.3	1.2
Total	1.3	1.2
Receivables		
Associated companies	—	0.1
Liabilities		
Pension Fund Neliapila	2.5	—

Real estate owned by the Pension Fund Neliapila are leased to the Group. Commitments for these real estate leases are treated in accordance with IFRS 16 Leases from January 1, 2019.

Related parties include the Pension Fund Neliapila, which is a separate legal entity. Neliapila manages Kemira's voluntarily organized additional pension fund. It also manages part of the pension assets of the Group's personnel in Finland. The assets include Kemira shares representing 0.07% of the company's outstanding shares. Supplementary benefit in Neliapila and the paid return surplus of EUR 15 million to Kemira Group companies in Q1/2019 are disclosed in more detail in Note 4.5. Defined benefit pension plans and employee benefits.

The amount of contingent liabilities on behalf of the associates are presented in Note 7.1. Commitments and contingent liabilities.

No loans had been granted to the key persons of the management at year-end of 2019 and 2018, nor were there contingency items or commitments on behalf of key management personnel. Persons close to key management personnel with the related parties do not have any significant business relationship with the Group.

6.2 THE GROUP'S SUBSIDIARIES AND INVESTMENT IN ASSOCIATES

SUBSIDIARIES

	City	Country	Kemira Group's holding, %	Kemira Oyj's holding, %	Non-controlling interest's holding, %
Kemira Oyj (parent company)	Helsinki	Finland			
Aliada Quimica de Portugal Lda.	Estarreja	Portugal	50.1	0.0	49.9
AS Kemivesi	Lehmja Küla	Estonia	100.0	100.0	0.0
JSC "Kemira HIM"	St. Petersburg	Russia	100.0	0.0	0.0
Corporación Kemira Chemicals de Venezuela, C.A.	Caracas	Venezuela	100.0	0.0	0.0
Industry Park i Helsingborg Förvaltning AB	Helsingborg	Sweden	100.0	0.0	0.0
Kemifloc a.s.	Přerov	Czech Republic	51.0	0.0	49.0
Kemifloc Slovakia s.r.o.	Prešov	Slovakia	51.0	0.0	49.0
Kemipol Sp. z.o.o.	Police	Poland	51.0	0.0	49.0
Kemira (Asia) Co., Ltd.	Shanghai	China	100.0	0.0	0.0
Kemira Argentina S.A.	Buenos Aires	Argentina	100.0	15.8	0.0
Kemira Australia Pty Ltd	Hallam	Australia	100.0	0.0	0.0
Kemira Cell Sp. z.o.o.	Ostroleka	Poland	55.0	55.0	45.0
Kemira Chemicals (Nanjing) Co., Ltd.	Nanjing	China	100.0	100.0	0.0
Kemira Chemicals (Shanghai) Co., Ltd.	Shanghai	China	100.0	100.0	0.0
Kemira Chemicals (UK) Ltd.	Bradford	United Kingdom	100.0	100.0	0.0
Kemira Chemicals (Yanzhou) Co., Ltd.	Yanzhou City	China	100.0	100.0	0.0
Kemira Chemicals AS	Gamle Fredrikstad	Norway	100.0	0.0	0.0
Kemira Chemicals Brasil Ltda.	São Paulo	Brazil	100.0	99.9	0.0
Kemira Chemicals Canada Inc.	St. Catharines	Canada	100.0	100.0	0.0

	City	Country	Kemira Group's holding, %	Kemira Oyj's holding, %	Non-controlling interest's holding, %
Kemira Chemicals Germany GmbH	Frankfurt am Main	Germany	100.0	0.0	0.0
Kemira Chemicals Korea Corporation	Gunsan-City	South Korea	100.0	100.0	0.0
Kemira Chemicals NV	Aartselaar	Belgium	100.0	0.0	0.0
Kemira Chemicals Oy	Helsinki	Finland	100.0	0.0	0.0
Kemira Chemicals, Inc.	Atlanta, GA	United States	100.0	0.0	0.0
Kemira Chemie Ges.mbH	Krems	Austria	100.0	100.0	0.0
Kemira Chile Comercial Limitada	Santiago	Chile	100.0	99.0	0.0
Kemira Chimie S.A.S.U.	Strasbourg	France	100.0	0.0	0.0
Kemira Europe Oy	Helsinki	Finland	100.0	100.0	0.0
Kemira Gdańsk Sp. z o.o.	Gdańsk	Poland	100.0	0.0	0.0
Kemira Germany GmbH	Frankfurt am Main	Germany	100.0	100.0	0.0
Kemira GrowHow A/S	Copenhagen	Denmark	100.0	100.0	0.0
Kemira Hong Kong Company Limited	Hong Kong	China	100.0	100.0	0.0
Kemira Ibérica S.A.	Barcelona	Spain	100.0	0.0	0.0
Kemira International Finance B.V.	Rotterdam	Nether-lands	100.0	100.0	0.0
Kemira Italy S.p.A.	San Giorgio di Nogaro	Italy	100.0	0.0	0.0
Kemira Japan Co., Ltd.	Tokyo	Japan	100.0	0.0	0.0
Kemira Kemi AB	Helsingborg	Sweden	100.0	0.0	0.0
Kemira Kopparverket KB	Helsingborg	Sweden	100.0	0.0	0.0
Kemira KTM d.o.o.	Ljubljana	Slovenia	100.0	100.0	0.0
Kemira Research Center Shanghai Co., Ltd.	Shanghai	China	100.0	100.0	0.0
Kemira Rotterdam B.V.	Rotterdam	Nether-lands	100.0	0.0	0.0
Kemira South Africa (Pty) Ltd.	Weltevreden-park	South Africa	100.0	0.0	0.0

	City	Country	Kemira Group's holding, %	Kemira Oyj's holding, %	Non-controlling interest's holding, %
Kemira Świecie Sp. z.o.o.	Swiecie	Poland	100.0	100.0	0.0
Kemira Taiwan Corporation	Taipei	Taiwan	100.0	0.0	0.0
Kemira TC Wanfeng Chemicals (Yanzhou) Co., Ltd.	Yanzhou City	China	80.0	0.0	20.0
Kemira (Thailand) Co., Ltd.	Bangkok	Thailand	100.0	0.0	0.0
Kemira Uruguay S.A.	Fray Bentos	Uruguay	100.0	0.0	0.0
Kemira (Vietnam) Company Limited	Long Thanh	Vietnam	100.0	0.0	0.0
Kemira Water Danmark A/S	Copenhagen	Denmark	100.0	100.0	0.0
Kemira Water Solutions Brasil - Produtos para Tratamento de Água Ltda.	São Paulo	Brazil	100.0	100.0	0.0
Kemira Water Solutions Canada Inc.	Varennes	Canada	100.0	0.0	0.0
Kemira Water Solutions, Inc.	Atlanta, GA	United States	100.0	0.0	0.0
Kemwater Brasil Ltda.	Camaçari	Brazil	100.0	0.0	0.0
Kemwater ProChemie s.r.o.	Bradlec	Czech Republic	95.1	0.0	4.9
PT Kemira Indonesia	Surabaya	Indonesia	100.0	74.8	0.0
PT Kemira Chemicals Indonesia	Pasuruan	Indonesia	99.8	99.8	0.2
Scandinavian Tanking System A/S	Copenhagen	Denmark	100.0	0.0	0.0

ASSOCIATES

	City	Country	Kemira Group's holding, %	Kemira Oyj's holding, %
Honkalahden Teollisuuslaituri Oy	Lappeenranta	Finland	50.0	0.0
Kemira Yongsan Chemicals Co., Ltd	Seoul	South Korea	35.0	0.0

INVESTMENTS IN ASSOCIATES

EUR million	2019	2018
Net book value on Jan 1	0.7	0.7
Additions	2.7	0.0
Decreases	-0.7	0.0
Net book value on Dec 31	2.8	0.7

Kemira established on January 11, 2019 a joint venture with 35% ownership of the company called Kemira Yongsan Chemicals Co., Ltd in South Korea. This associated company supports Kemira's future growth, especially in Asia-Pacific region, by providing additional polymer capacity, securing our capacity utilization and supporting Kemira's customers better with global delivery capability.

Kemira sold on August 8, 2019 a subsidiary of Kemira Operon Oy, a provider of water treatment plant operation services, and its associated company Haapaveden Ympäristöpalvelut Oy to the company of Operon Group. Kemira's holding is 10% in the company of Operon Group Oy.

A summary of the associates financial information is presented in the following table. The presented figures equal the figures in the financial statements of the each associate, not the portion of Kemira Group.

EUR million	2019	2018
Assets	7.8	9.8
Liabilities	7.6	9.7
Revenue	0.0	2.8
Profit (+) / loss (-) for the period	0.0	0.0

Related party transactions carried out with associates are disclosed in Note 6.1. Related parties.

NON-CONTROLLING INTERESTS

EUR million	2019	2018
Net book value on Jan 1	12.9	13.8
Dividends	-6.0	-6.5
Share of the profit for the period	6.3	6.1
Exchange rate differences	0.2	-0.4
Net book value on Dec 31	13.3	12.9

Changes in the group structure

Divestment of group companies

- Kemira Operon Oy was sold on August 8, 2019.

7. OFF-BALANCE SHEET ITEMS

7.1 COMMITMENTS AND CONTINGENT LIABILITIES

COMMITMENTS

EUR million	2019	2018
Assets pledged		
On behalf of own commitments	6.0	5.5
Guarantees		
On behalf of own commitments	48.8	54.7
On behalf of others	1.7	2.8
Operating lease commitments under IAS 17 standard - the Group as a lessee [1]		
Minimum lease payments under operating leases are as follows:		
No later than 1 year		34.7
Later than 1 year and no later than 5 years		82.5
Later than 5 years		87.9
Total		205.2
Other obligations		
On behalf of own commitments	0.9	0.9
On behalf of others	6.1	6.1

1) On 1 January 2019, operating lease commitments are treated in accordance with IFRS 16 Leases standard.

The most significant off-balance sheet investments commitments

On December 31, 2019, major amounts of contractual commitments for the acquisition of property, plant and equipment were EUR 52.6 million (16.4) for plant investments.

Litigation

On May 19, 2014 Kemira announced that it had signed an agreement with Cartel Damage Claims Hydrogen Peroxide SA and CDC Holding SA (together “CDC”) to settle the lawsuit in Helsinki, Finland relating to alleged old violations of competition law applicable to the hydrogen peroxide business. Based on the settlement CDC withdrew the damages claims and Kemira paid to CDC a compensation of EUR 18.5 million and compensated CDC for its legal costs. The settlement also included significant limitations of liabilities for Kemira regarding the then pending legal actions filed by CDC entities in Dortmund, Germany (mentioned and settled as below) and in Amsterdam, the Netherlands (mentioned and pending as below).

On October 16, 2017 Kemira entered into a settlement with Cartel Damage Claims Hydrogen Peroxide SA settling -for its part- fully and finally the Dortmund lawsuit filed by Cartel Damage Claims Hydrogen Peroxide SA in 2009 against six hydrogen peroxide manufacturers, including Kemira, for alleged old violations of competition law in the hydrogen peroxide business. Based on the settlement Cartel Damage Claims Hydrogen Peroxide SA withdrew the damages claims against Kemira and Kemira paid to Cartel Damage Claims Hydrogen Peroxide SA as compensation and costs an amount of EUR 12.7 million.

On June 9, 2011 Kemira Oyj's subsidiary Kemira Chemicals Oy (former Finnish Chemicals Oy) has received documents where it was stated that CDC Project 13 SA has filed an action against four companies in municipal court of Amsterdam, including Kemira, asking damages for violations of competition law applicable to the old sodium chlorate business. The European Commission set on June 2008 a fine of EUR 10.15 million on Finnish Chemicals Oy for antitrust activity in the company's sodium chlorate business during 1994-2000. Kemira Oyj acquired Finnish Chemicals in 2005. The municipal court of Amsterdam decided on June 4, 2014 to have jurisdiction over the case. The said decision on jurisdiction was appealed by Kemira to the court of appeal of Amsterdam. According to the decision by the court of appeal on July 21, 2015, the municipal court of Amsterdam has jurisdiction over the case. The proceedings now continue at the municipal court of Amsterdam where Kemira is the only defendant after the other defendants have settled the claim with CDC Project 13 SA. CDC Project 13 SA claims from Kemira in its brief filed to the municipal court of Amsterdam EUR 61.1 million as damages and interests calculated until December 2, 2015 from which amount CDC Project 13 SA asks the court to deduct the share of the earlier other defendants for other sales than made by them directly, and statutory interest on so defined amount starting from December 2, 2015. Kemira defends against the claim of CDC Project 13 SA. On May 10, 2017, the municipal court of Amsterdam rendered an interim decision on certain legal aspects relating to the claims of CDC Project 13 SA. The interim decision was favorable to Kemira on matters as to applicable statute of limitations, though not supporting Kemira's view that assignments made to CDC (allegedly giving CDC rights to present damage claims against the defendants) were invalid. CDC Project 13 SA has appealed against said interim decision and likewise Kemira has decided to file a cross-appeal accordingly.

As mentioned above the settlement between Kemira and CDC relating to the Helsinki litigation also includes significant limitations of liabilities for Kemira regarding the remaining pending legal action filed by CDC Project 13 SA in Amsterdam, the Netherlands. Regardless of such limitations of liabilities, Kemira is not in a position to make estimate regarding the duration or the outcome of the said process. No assurance can be given as to the outcome of the process, and unfavorable judgments against Kemira could have an adverse effect on Kemira's business, financial condition or results of operations. Nevertheless, Kemira has estimated that the continuing process will likely cause a financial impact and hence has made a provision of EUR 11.5 million in 2019.

Due to its extensive international operations the Group, in addition to the above referred claims, is involved in a number of other legal proceedings incidental to these operations and it does not expect the outcome of these other currently pending legal proceedings to have materially adverse effect upon its consolidated results or financial position.

The Group's accounting policies

Contingent liabilities

A contingent liability is a possible obligation that arises from past events and whose existence will be confirmed by the occurrence of uncertain future events not wholly within the control of the Group, or concerns a present obligation which will most probably not require an outflow of resources embodying economic benefits to settle the obligation; or when the amount of the obligation cannot be measured with sufficient reliability. Contingent liability is disclosed in the notes.

7.2 EVENTS AFTER THE BALANCE SHEET DATE

The Group has no other significant events after the balance sheet date.

Kemira Oyj's income statement

Thousand EUR	Note	01.01.-31.12.2019	01.01.-31.12.2018
Revenue	2	1,542,589	1,489,738
Change in inventory of finished goods and in work in progress +/-	4	-77	21,982
Other operating income	3	2,392	7,775
Materials and services	4	-866,634	-926,451
Personnel expenses	5	-38,033	-45,418
Depreciation, amortization and impairments	6	-26,828	-29,718
Other operating expenses	4	-509,077	-498,493
Operating profit		104,332	19,415
Financial income and expenses	7	87,259	119,636
Profit before appropriations and taxes		191,590	139,051
Appropriations	8	-96,098	-8,331
Income taxes	9	-1,971	1,738
Profit for the financial year		93,521	132,458

Kemira Oyj's balance sheet

Thousand EUR	Note	31.12.2019	31.12.2018
ASSETS			
NON-CURRENT ASSETS			
Intangible assets	10	50,796	60,683
Tangible assets	11	34,317	35,331
Investments	12		
Holdings in Group undertakings		1,468,799	2,092,983
Receivables from Group companies		414,761	445,734
Other shares and holdings		100,712	100,442
Total non-current assets		2,069,385	2,735,173
CURRENT ASSETS			
Inventories	13	110,829	124,213
Non-current receivables	14		
Deferred tax assets		10,437	9,414
Loan receivables		100	0
Current receivables	14	316,358	457,504
Cash and cash equivalents		89,342	97,143
Total current assets		527,067	688,274
Total assets		2,596,451	3,423,447

Thousand EUR	Note	31.12.2019	31.12.2018
EQUITY AND LIABILITIES			
CAPITAL AND RESERVES	15		
Share capital		221,762	221,762
Share premium account		257,878	257,878
Fair value reserve		5,749	19,730
Unrestricted equity reserve		199,964	199,964
Retained earnings		555,463	502,911
Profit for the financial year		93,521	132,458
Total equity		1,334,336	1,334,703
APPROPRIATIONS	16	5,252	5,154
PROVISIONS	17	24,922	20,119
LIABILITIES			
Non-current liabilities	18		
Deferred tax liability		1,437	4,914
Other non-current liabilities		639,804	666,884
Current liabilities	19	590,700	1,391,674
Total liabilities		1,231,941	2,063,471
Total equity and liabilities		2,596,451	3,423,447

Kemira Oyj's cash flow statement

Thousand EUR	2019	2018
CASH FLOWS FROM OPERATING ACTIVITIES		
Net profit for the period	93,521	132,458
Adjustments for		
Depreciations according to plan	26,828	29,718
Unrealized exchange differences (net)	-6,015	8,766
Financial income and expenses (+/-)	-87,259	-119,636
Income taxes	1,971	-1,738
Other adjustments (+/-)	102,146	75,600
Operating profit before change in working capital	131,192	125,169
Change in working capital		
Increase (-) / decrease (+) in non-interest-bearing current receivables	50,885	-71,360
Increase (-) / decrease (+) in inventories	13,384	-35,257
Increase (+) / decrease (-) in short-term interest-free debts	-224,768	6,058
Change in working capital	-160,499	-100,559
Cash generated from operations before financial items and taxes	-29,307	24,610
Interest and other finance costs paid	-24,692	-73,726
Interest and other finance income received	24,850	2,585
Realized exchange differences (net)	7,949	-1,279
Dividends received	99,737	167,317
Income taxes paid	-1,309	1,152
Net cash from operating activities	77,230	120,659

Thousand EUR	2019	2018
CASH FLOWS FROM INVESTING ACTIVITIES		
Acquisitions of subsidiary shares	-154	-213
Acquisitions of other shares	-270	0
Purchases of intangible assets	-7,838	-15,159
Purchases of tangible assets	-8,089	-11,043
Proceeds from sale of subsidiary shares	1,852	0
Proceeds from sale of tangible and intangible assets	174	108
Increase (-) / decrease (+) in loan receivables	99,999	-155,974
Net cash used in investing activities	85,674	-182,282
Cash flows before financing	162,904	-61,622
CASH FLOWS FROM FINANCING ACTIVITIES		
Proceeds from non-current liabilities (+)	40,121	90,000
Repayment of non-current liabilities (-)	-10,712	-111,000
Short-term financing, net increase (+) / decrease (-)	-110,027	144,305
Dividends paid	-80,905	-80,827
Group contribution paid	-9,000	0
Net cash used in financing activities	-170,523	42,478
Net increase (+) / decrease (-) in cash and cash equivalents	-7,619	-19,144
Cash and cash equivalents on Dec 31	89,342	97,143
Exchange gains (+) / losses (-) on cash and cash equivalents	-182	-800
Cash and cash equivalents on Jan 1	97,143	117,088
Net increase (+) / decrease (-) in cash and cash equivalents	-7,619	-19,144

1. THE PARENT COMPANY'S ACCOUNTING POLICIES FOR THE FINANCIAL STATEMENTS

BASIS OF PREPARATION

The parent company's financial statements have been prepared in compliance with the relevant acts and regulations in force in Finland (FAS). Kemira Group's financial statements have been prepared in accordance with the International Financial Reporting Standards (IFRS), and the parent company applies the Group's accounting policies whenever it has been possible according to FAS.

ADJUSTMENTS FOR PRIOR PERIOD DISCLOSURES

Presentation regarding freights and delivery expenses has been changed during the financial year to reflect to the presentation of the Group. Earlier they were presented in materials and services. Now they are presented in other operating expenses. The change in presentation has been applied also to comparison year.

Restructuring provision of EUR 1.0 million has been reclassified to environmental provisions and transferred to non-current provisions. The change in classification has been applied also to comparison year.

VALUATION AND ALLOCATION PRINCIPLES

VALUATION OF NON-CURRENT ASSETS

Planned depreciation and any impairment losses have been deducted from the acquisition cost of the intangible and tangible assets entered in the balance sheet. The acquisition cost includes the variable costs of acquisition and manufacturing. Government grants received are recognized as a deduction from the carrying amount of property, plant and equipment. Planned depreciation is calculated on a straight-line basis over the estimated intangible and tangible asset's useful life. Depreciation starts from the month of commencement of use.

Depreciation periods:
Other intangible assets 5–10 years
Buildings and constructions 20–40 years
Machinery and equipment 3–15 years

Shares of non-current assets are valued at their acquisition cost or less impairment.

VALUATION OF INVENTORY

Inventories are stated at cost or at the lower of replacement cost or probable selling price. In addition to variable costs, the cost of inventories includes a portion of the fixed costs of acquisition and manufacturing. Costs are determined using a weighted average cost formula. The net realizable value is the sales price received in the ordinary course of business less the estimated costs for completing the asset and the sales costs.

VALUATION OF FINANCIAL INSTRUMENTS

Management of financial risk of Kemira Group is concentrated in Kemira Oyj, which enters into currency, interest rate and electricity derivatives with third parties. Changes in the fair value of currency derivatives that are applicable for hedge accounting in the Group, but not in the parent company (as underlying hedged items are with group companies) are booked to profit and loss. Also, changes in the fair value of other currency derivatives not qualifying for hedge accounting in the Group, hedging commercial purchases or sales or financial items in foreign currencies are booked to profit and loss. Changes in the fair value of interest rate derivatives are booked to financial items in both hedge accounting and non-hedge accounting.

The fair value of Electricity Derivatives hedging the parent company's electricity purchases and qualifying for hedge accounting is posted to the hedging reserve under equity as well as the change in the fair value of currency derivatives that qualify for hedge accounting in the parent company. These currency derivatives are hedging estimated currency flows in Kemira Oyj for the next 12-month period. When the hedging instrument is maturing or the hedging relationship is discontinued due to inefficiency, the hedging reserve is is adjusted by the value of the derivative by booking the value to Income Statement.

Valuation of Fair value derivative instruments is done according to the Finnish Accounting Act Chapter 5 Section 2a.

The valuation methods of derivative instruments are described in Notes 5.4 and 5.6 in the Consolidated Financial Statements.

Defining the fair value of Financial assets and liabilities is described in Group Note 5.4. Financial Risk management principles is illustrated in Group note 5.5. Hedge accounting principles and valuation of derivative instrument are described in Group note 5.6.

Reductions in the capital of other non-current loans as well as loan transaction costs have been capitalized in a manner allowed by the Finnish Accounting Act in the parent company's financial statement. The non-expensed portion of these expenses, EUR 2.8 million (1.8), is included in the balance sheet.

OBLIGATORY PROVISIONS

Obligatory provisions are recognized from pensions, personnel-related costs and environmental obligations.

REVENUE

Kemira Oyj's revenue consists mainly of revenues from the sale of goods and services. Revenue also includes intercompany service charges on a gross basis.

PENSION ARRANGEMENTS

The company's statutory pensions are handled by pension insurance companies and supplemental pensions mainly by Kemira's own pension fund. Pension costs consist of payments to pension insurance companies and possible contributions to the pension fund and are recognized in the income statement.

SHARE-BASED INCENTIVE PLANS

The treatment of share-based plans is described in the Group's accounting policies. In the parent company, the cash proportion of share-based incentive plans is recognized as an expense in the performance year, and the share proportion is recognized in the year the shares are given using the average share price.

FOREIGN CURRENCY TRANSLATION

In a day-to-day accounting, foreign currency transactions are translated into their functional currency at the exchange rates quoted on the transaction date. In the Financial Statements, foreign currency denominated receivables and liabilities are measured at the exchange rates quoted on the balance sheet date. Business related exchange rate differences and business related foreign currency exchange rate hedges are treated as sales and purchase adjustments. Any foreign exchange gains and losses related to financial items and respective hedging instruments are booked into financial income and expenses.

DEFERRED TAXES

Deferred tax liabilities or receivables are recognized for temporary differences between tax and financial statements using the tax rate for the year following as determined on the balance sheet date. The balance sheet includes the deferred tax liability in its entirety and the deferred tax asset at the estimated probable amount by management assesses. The efficient part of changes in the value of the electricity and currency derivatives qualifying for hedge accounting is booked as a fair value reserve less deferred taxes.

LEASE

Lease payments are treated as rental expenses.

CASH FLOW STATEMENT

The parent company's cash flow statement has been prepared in accordance with the general guidelines on cash flow by the Finnish Board of Accounting.

2. REVENUE

Thousand EUR	2019	2018
Revenue by segments		
Pulp & Paper	696,057	797,755
Industry & Water	422,452	429,107
Intercompany revenue	424,079	262,876
Total	1,542,589	1,489,738
Distribution of revenue by geographical area as a percentage of total revenue		
Finland, domicile of the parent company	29	30
Other Europe, Middle East and Africa	55	57
Americas	11	8
Asia Pacific	5	5
Total	100	100

3. OTHER OPERATING INCOME

Thousand EUR	2019	2018
Gains on the sale of property, plant and equipment	174	27
Rent income	369	818
Insurance compensation received	190	4,613
Other income from operations	1,658	2,316
Total	2,392	7,775

4. OPERATING EXPENSES

Thousand EUR	2019	2018
Change in stocks of finished goods and in work in progress	77	-21,982
Materials and services		
Materials and supplies		
Purchases during the financial year	853,795	914,995
Change in inventories (increase - / decrease +)	-1,015	-2,535
External services	13,854	13,991
Total	866,634	926,451
Personnel expenses 1)	38,033	45,418
Breakdown of personnel expenses in Note 5.		
Other operating expenses		
Rents 1)	10,597	8,408
Intercompany tolling manufacturing charges	204,794	196,679
Other intercompany charges	130,120	131,006
Freights and delivery expenses	106,823	109,531
External services	17,726	18,733
Other operating expenses 1)	39,017	34,135
Total	509,077	498,493
Total operating expenses	1,413,821	1,448,379

1) In 2019, the operating expenses included a net increase in the obligatory provisions of EUR +4,803 thousand (personnel expenses EUR -119 thousand, rents EUR 0 thousand and other expenses EUR +4,921 thousand). In 2018, the operating expenses included a net decrease in the obligatory provisions of EUR -2,062 thousand (personnel expenses EUR -140 thousand, rents EUR -3,515 thousand and other expenses EUR +1,593 thousand).

AUDIT FEES AND SERVICES

Thousand EUR	2019	2018
Audit fees	462	445
Tax services	149	227
Other services	331	562
Total	942	1,234

In the Annual General Meeting on March 21, 2019 Ernst & Young Oy was elected as the auditor for 2019. In 2018, Deloitte Oy was acting as the auditor.

5. PERSONNEL EXPENSES AND NUMBER OF PERSONNEL

Thousand EUR	2019	2018
Emoluments of the Board of Directors, the CEO and his Deputy [1]	1,826	1,714
Other wages and salaries	42,960	36,106
Pension expenses [2]	-8,393	6,640
Other personnel expenses	1,639	958
Total	38,033	45,418

In 2017, salaries and bonuses totaled EUR 37,207 thousand.

1) In 2019, the emolument of the Kemira Oyj's CEO was EUR 1,110 thousand (1,022) including bonuses and share-based payments of EUR 402 thousand (455). The emolument of the Kemira Oyj's Deputy CEO was EUR 314 thousand (330) including bonuses and share-based payments of EUR 130 thousand (148).

2) In 2019, the pension expenses includes a return of EUR 14.8 million from Pension Fund Neliapila.

Other transactions between related parties are presented in Note 6.1 in the Notes to the Consolidated Financial Statements.

Number of personnel on Dec 31	2019	2018
Pulp & Paper segment	108	108
Industry & Water segment	38	36
Other, of which	358	365
R&D and Technology	166	167
Total	504	509
Average number of personnel	507	507

6. DEPRECIATION, AMORTIZATION AND IMPAIRMENTS

Thousand EUR	2019	2018
Depreciation according to plan and impairments		
Intangible rights	11,484	14,222
Other intangible assets	6,280	6,466
Impairment of land and water	32	0
Buildings and constructions	780	496
Machinery and equipment	8,242	8,525
Other tangible assets	10	10
Total	26,828	29,718

Kemira

7. FINANCE INCOME AND EXPENSES

Thousand EUR	2019	2018
Dividend income		
From Group companies	99,629	167,202
From others	108	116
Total	99,737	167,317
Other interest and finance income		
Interest income from Group companies	19,716	16,597
Interest income from others	1,272	1,666
Other finance income from Group companies	551	553
Other finance income from others	1,513	0
Exchange gains from Group companies (net)	7,158	9,889
Total	30,209	28,705
Total finance income	129,946	196,022
Impairment losses on non-current assets		
Group companies	-15,000	-28,217
Others	0	-21,484
Total	-15,000	-49,702
Interest expenses and other finance expenses		
Interest expenses to Group companies	-2,124	-1,309
Interest expenses to others	-18,232	-19,580
Other finance expenses to others	-2,108	-3,392
Exchange losses from others (net)	-5,223	-2,403
Total	-27,688	-26,685
Total finance expenses	-42,688	-76,386
Total finance income and expenses	87,259	119,636

Thousand EUR	2019	2018
Exchange gains and losses		
Realized	7,949	-1,279
Unrealized	-6,015	8,765
Total	1,934	7,486

8. APPROPRIATIONS

Thousand EUR	2019	2018
Change in accumulated depreciation difference (increase - / decrease +)		
Intangible rights	-1,417	-653
Other intangible assets	-147	629
Buildings and constructions	312	87
Machinery and equipment	1,149	601
Other tangible assets	5	5
Total	-98	669
Group contribution		
Group contributions given	-96,000	-9,000
Total	-96,000	-9,000
Total appropriations	-96,098	-8,331

9. INCOME TAXES

Thousand EUR	2019	2018
Income taxes on ordinary activities	-1,503	-367
Income taxes for prior years	-104	-12
Change in deferred taxes	1,023	3,514
Other taxes and parafiscal charges	-1,386	-1,397
Total	-1,971	1,738

10. INTANGIBLE ASSETS

2019, Thousand EUR	Intangible rights	Goodwill	Advance payments and construction in progress	Other intangible assets	Total
Acquisition cost on Jan 1	97,348	6,181	3,083	195,106	301,719
Additions	5,534	0	2,303	0	7,838
Decreases	-2,121	0	0	0	-2,121
Transfers	159,843	1,082	-2,752	-155,228	2,944
Acquisition cost on Dec 31	260,605	7,263	2,634	39,878	310,380
Accumulated amortization on Jan 1	-58,343	-6,181	0	-176,512	-241,037
Accumulated amortization relating to decreases	1,822	0	0	0	1,822
Accumulated amortization relating to transfers	-150,849	-1,082	0	149,026	-2,905
Amortization during the financial year	-11,186	0	0	-6,280	-17,465
Accumulated amortization on Dec 31	-218,556	-7,263	0	-33,766	-259,584
Net book value on Dec 31	42,049	0	2,634	6,112	50,796

2018, Thousand EUR	Intangible rights	Goodwill	Advance payments and construction in progress	Other intangible assets	Total
Acquisition cost on Jan 1	93,348	6,181	9,952	186,973	296,455
Additions	6,147	0	1,717	6,806	14,670
Decreases	-6,120	0	0	-3,775	-9,895
Transfers	3,973	0	-8,586	5,103	489
Acquisition cost on Dec 31	97,348	6,181	3,083	195,106	301,719
Accumulated amortization on Jan 1	-50,241	-6,181	0	-173,821	-230,244
Accumulated amortization relating to decreases	6,120	0	0	3,775	9,895
Amortization during the financial year	-14,222	0	0	-6,466	-20,688
Accumulated amortization on Dec 31	-58,343	-6,181	0	-176,512	-241,037
Net book value on Dec 31	39,005	0	3,083	18,595	60,683

11. TANGIBLE ASSETS

2019, Thousand EUR	Land and water areas	Buildings and constructions	Machinery and equipment	Other tangible assets	Advance payments and construction in progress	Total
Acquisition cost on Jan 1	1,083	18,860	109,495	553	6,225	136,216
Additions	0	16	2,369	0	5,705	8,089
Decreases	-32	-5,859	-32,099	0	0	-37,991
Transfers	0	0	3,251	0	-3,290	-39
Acquisition cost on Dec 31	1,051	13,016	83,015	553	8,640	106,276
Accumulated depreciation on Jan 1	-110	-14,001	-86,268	-507	0	-100,885
Accumulated depreciation relating to decreases	0	5,508	31,801	0	0	37,309
Depreciation during the financial year	0	-428	-7,944	-10	0	-8,383
Accumulated depreciation on Dec 31	-110	-8,921	-62,411	-517	0	-71,959
Net book value at 31 Dec	942	4,095	20,604	36	8,640	34,317

2018, Thousand EUR	Land and water areas	Buildings and constructions	Machinery and equipment	Other tangible assets	Advance payments and construction in progress	Total
Acquisition cost on Jan 1	1,083	18,567	102,000	553	9,093	131,297
Additions	0	166	6,448	0	5,010	11,623
Decreases	0	-321	-5,894	0	0	-6,215
Transfers	0	448	6,940	0	-7,878	-489
Acquisition cost on Dec 31	1,083	18,860	109,495	553	6,225	136,216
Accumulated depreciation on Jan 1	-110	-13,826	-83,546	-497	0	-97,979
Accumulated depreciation relating to decreases	0	321	5,803	0	0	6,124
Depreciation during the financial year	0	-496	-8,525	-10	0	-9,030
Accumulated depreciation on Dec 31	-110	-14,001	-86,268	-507	0	-100,885
Net book value on Dec 31	974	4,859	23,227	46	6,225	35,331

12. INVESTMENTS

2019, Thousand EUR	Holdings in Group companies	Receivables from Group companies	Other shares and holdings	Total
Net book value on Jan 1	2,092,983	445,734	100,442	2,639,159
Additions	154	0	270	424
Decreases	-339	-30,973	0	-31,312
Impairments	-624,000	0	0	-624,000
Net book value on Dec 31	1,468,799	414,761	100,712	1,984,272

2018, Thousand EUR	Holdings in Group companies	Receivables from Group companies	Other shares and holdings	Total
Net book value on Jan 1	2,123,929	289,459	121,926	2,535,315
Additions	213	156,275	0	156,488
Decreases	-2,942	0	0	-2,942
Impairments	-28,217	0	-21,484	-49,702
Net book value on Dec 31	2,092,983	445,734	100,442	2,639,159

13. INVENTORIES

Thousand EUR	2019	2018
Raw materials and consumables	31,966	30,951
Finished goods	78,709	78,786
Advance payments	153	14,476
Total	110,829	124,213

14. RECEIVABLES

Thousand EUR	2019	2018
Non-current receivables		
Interest-bearing non-current receivables		
Loan receivables		
Loan receivables from others	100	0
Total	100	0
Deferred tax assets		
Appropriations	1,168	1,094
Reservations	3,861	2,883
Revaluations	4,285	4,285
Other deferred tax receivables	1,123	1,152
Total	10,437	9,414
Total non-current receivables	10,537	9,414

Thousand EUR	2019	2018
Current receivables		
Receivables from Group companies		
Trade receivables	38,415	36,097
Loan receivables	140,925	209,133
Advances paid	18,836	18,836
Other current receivables	28	0
Prepayments and accrued income	5,351	5,543
Total	203,555	269,610

Thousand EUR	2019	2018
Accrued income from others		
Trade receivables	92,493	136,680
Advances paid	1	10
Other current receivables	4,710	13,009
Prepayments and accrued income	15,600	38,195
Total	112,803	187,894
Total current receivables	316,358	457,504
Total receivables	326,895	466,918

Thousand EUR	2019	2018
Accrued income from others		
Interest	-116	1,371
Taxes	1,588	2,138
Exchange rate differences	9,154	27,298
Other	4,974	7,389
Total	15,600	38,195

15. CAPITAL AND RESERVES

Thousand EUR	2019	2018
Restricted equity		
Share capital on Jan 1	221,762	221,762
Share capital on Dec 31	221,762	221,762
Share premium account on Jan 1	257,878	257,878
Share premium account on Dec 31	257,878	257,878
Fair value reserve on Jan 1	19,730	4,394
Cash flow hedges	-13,982	15,337
Fair value reserve on Dec 31	5,749	19,730
Total restricted equity on Dec 31	485,388	499,370
Unrestricted equity		
Unrestricted equity reserve on Jan 1	199,964	199,964
Unrestricted equity reserve on Dec 31	199,964	199,964
Retained earnings on Jan 1	635,369	582,637
Dividend distributions	-80,905	-80,827
Share-based incentive plan		
Shares given	1,083	1,123
Shares returned	-84	-23
Retained earnings on Dec 31	555,463	502,911
Profit for the financial period	93,521	132,458
Total unrestricted equity on Dec 31	848,948	835,333
Total capital and reserves on Dec 31	1,334,336	1,334,703
Total distributable funds on Dec 31	848,948	835,333

CHANGE IN TREASURY SHARES

Thousand	EUR	Number of shares
Acquisition value/number on Jan 1, 2019	19,065	2,832
Change	-937	-139
Acquisition value/number on Dec 31, 2019	18,128	2,693

16. ACCUMULATED APPROPRIATIONS

Thousand EUR	2019	2018
Appropriations		
Accumulated depreciation difference	5,252	5,154
Deferred tax liabilities on accumulated appropriations	1,050	1,031

17. OBLIGATORY PROVISIONS

Thousand EUR	2019	2018
Non-current provisions		
Pension provisions	5,617	5,760
Environmental provisions	17,621	14,000
Total non-current provisions	23,238	19,760
Current provisions		
Pension provisions	383	359
Environmental provisions	1,300	0
Total current provisions	1,683	359
Total provisions	24,922	20,119
Change in obligatory provisions		
Obligatory provisions on Jan 1	20,119	22,181
Utilised during the year	-724	-3,747
Cancellation of unused reservations	-20	-13
Increase during the year	5,547	1,699
Obligatory provisions on Dec 31	24,922	20,119

Environmental risks and liabilities are disclosed in Note 4.6 in the Notes to the Consolidated Financial Statements.

18. NON-CURRENT LIABILITIES

Thousand EUR	2019	2018
Loans from financial institutions	280,217	295,012
Corporate bonds	348,875	350,449
Other liabilities	10,712	21,423
Total	639,804	666,884
Maturity later than five years		
Loans from financial institutions	130,648	90,000
Corporate bonds	0	350,000
Other non-current liabilities	0	21,435
Total	130,648	461,435
Deferred tax liabilities		
From foreign currency and electricity hedging	1,437	4,914
Total	1,437	4,914
Total non-current liabilities	641,241	671,798

19. CURRENT LIABILITIES

Thousand EUR	2019	2018
Liabilities to Group companies		
Trade payables	41,223	47,926
Other liabilities	216,123	1,041,916
Accrued expenses	106,198	11,927
Total	363,545	1,101,769
Liabilities to others		
Corporate Bonds	45,000	100,001
Loans from financial institutions	10,000	10,000
Prepayments received	895	1,588
Trade payables	74,587	78,074
Other liabilities	31,966	30,401
Accrued expenses	64,706	69,841
Total	227,155	289,905
Total current liabilities	590,700	1,391,674
Accrued expenses and deferred income		
Personnel expenses	18,287	11,444
Interest expenses and exchange rate differences	9,493	9,984
Cost accruals	29,074	39,505
Other	7,853	8,908
Total	64,706	69,841

20. DERIVATIVES

	2019	2018
Nominal values, thousand EUR	**Total**	**Total**
Currency derivatives		
Forward contracts	468,439	358,063
of which cash flow hedges	93,379	14,127
Interest rate derivatives		
Interest rate swaps	130,000	245,000
of which cash flow hedges	—	145,000
of which fair value hedges	—	100,000
Other derivatives		
Electricity contracts, bought (MWh)	2,000,965	2,107,082
Electricity forward contracts	2,000,965	2,107,082
of which cash flow hedges	2,000,965	2,107,082

	2019		
Fair values, thousand EUR	**Positive**	**Negative**	**Net**
Currency derivatives			
Forward contracts	3,458	3,589	-131
of which cash flow hedges	1,001	363	638
Interest rate derivatives			
Interest rate swaps	—	576	576
of which cash flow hedges	—	—	—
of which fair value hedges	—	—	—
Other derivatives			
Electricity forward contracts, bought	6,375	—	6,375
of which cash flow hedges	6,375	—	6,375

	2018		
Fair values, thousand EUR	**Positive**	**Negative**	**Net**
Currency derivatives			
Forward contracts	2,346	2,161	184
of which cash flow hedges	75	—	75
Interest rate derivatives			
Interest rate swaps	1,743	1,297	446
of which cash flow hedges	—	1,297	-1,297
of which fair value hedges	1,743	—	1,743
Other derivatives			
Electricity forward contracts, bought	24,528	—	24,528
of which cash flow hedges	24,528	—	24,528

21. COLLATERAL AND CONTINGENT LIABILITIES

Thousand EUR	**2019**	**2018**
Given guarantees		
On behalf of own commitments		
Business related delivery-, environmental and other guarantees	13,657	9,700
On behalf of companies belonging to the same Group		
Business and financing guarantees	445,898	408,717
On behalf of others		
Guarantees	1,450	2,528
Other obligations		
Loan commitments	6,127	6,127
Purchase commitment	333	667
Rent liabilities		
Maturity within one year	2,550	2,505
Maturity after one year	10,965	13,426
Total	13,516	15,931
Leasing liabilities		
Maturity within one year	1,099	1,228
Maturity after one year	1,098	1,096
Total	2,197	2,324
Pledges given		
On behalf of own commitments	120	0

22. SHARES AND HOLDINGS OWNED BY KEMIRA OYJ

SHARES IN GROUP COMPANIES

	Group holding, %	Kemira Oyj holding, %
AS Kemivesi	100.00	100.00
Kemira Argentina S.A.	100.00	15.80
Kemira Cell Sp. z.o.o.	55.00	55.00
Kemira Chemicals (Nanjing) Co.,Ltd.	100.00	100.00
Kemira Chemicals (Shanghai) Co.,Ltd.	100.00	100.00
Kemira Chemicals (UK) Ltd.	100.00	100.00
Kemira Chemicals (Yanzhou) Co.,Ltd.	100.00	100.00
Kemira Chemicals Brasil Ltda	100.00	99.87
Kemira Chemicals Canada Inc.	100.00	100.00
Kemira Chemicals Korea Corporation	100.00	100.00
Kemira Chemie Ges.mbH	100.00	100.00
Kemira Chile Comercial Limitada	100.00	99.00
Kemira Europe Oy	100.00	100.00
Kemira Germany GmbH	100.00	100.00
Kemira GrowHow A/S	100.00	100.00
Kemira Hong Kong Company Limited	100.00	100.00
Kemira International Finance B.V.	100.00	100.00
Kemira KTM d.o.o.	100.00	100.00
Kemira Świecie Sp. z o.o.	100.00	100.00
Kemira Water Danmark A/S	100.00	100.00
Kemira Water Solutions Brasil	100.00	100.00
PT Kemira Indonesia	100.00	74.80
PT Kemira Chemicals Indonesia	99.77	99.77

In 2019, Kemira Oyj sold the shares of Kemira Operon Oy. The Group's subsidiaries and investment in associates are presented in Note 6.2. in the Consolidated Financial Statements.

KEMIRA OYJ'S BOARD OF DIRECTORS' PROPOSAL TO THE ANNUAL GENERAL MEETING FOR THE DISTRIBUTION OF DISTRIBUTABLE FUNDS AND SIGNING OF THE FINANCIAL STATEMENTS AND BOARD OF DIRECTORS' REVIEW

On December 31, 2019, Kemira Oyj's distributable funds are EUR 848,948,241 of which the net profit for the period amounts to EUR 93,521,333.

The Board of Directors proposes to the Annual General Meeting to be held on March 25, 2020 that a dividend of EUR 0.56 per share will be distributed. No dividend will be paid on own shares held by the company as treasury shares on the dividend record date.

On the date of this proposal for the distribution of profits, a total of 152,648,086 shares are held outside the company, the total dividends paid would amount to EUR 85,482,928. The distributable funds of EUR 763,465,313 to be retained as equity.

There have been no material changes in the company's financial position since December 31, 2019. The liquidity of the company remains good, and the proposed dividend payment does not risk the solvency of the company.

Helsinki, February 10, 2020

Jari Paasikivi
Chairman

Kerttu Tuomas
Vice Chairman

Wolfgang Büchele

Shirley Cunningham

Kaisa Hietala

Timo Lappalainen

Jari Rosendal
CEO

Auditor's report (Translation of the Finnish original)

To the Annual General Meeting of Kemira Oyj

REPORT ON THE AUDIT OF FINANCIAL STATEMENTS

OPINION

We have audited the financial statements of Kemira Oyj (business identity code 0109823-0) for the year ended 31 December 2019. 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 position as well as its financial performance and its cash flows in accordance with International Financial Reporting Standards (IFRS) as adopted by the EU.
- the financial statements give a true and fair view of the parent company's financial performance and financial position in accordance with the laws and regulations governing the preparation of financial statements in Finland and comply with statutory requirements.

Our opinion is consistent with the additional report submitted to the Audit Committee.

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 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.

In our best knowledge and understanding, the non-audit services that we have provided to the parent company and group companies are in compliance with laws and regulations applicable in Finland regarding these services, and we have not provided any prohibited non-audit services referred to in Article 5 (1) of regulation (EU) 537/2014. The non-audit services that we have provided have been disclosed in note 2.2 to the consolidated financial statements.

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

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 fulfilled the responsibilities described in the Auditor's responsibilities for the audit of the financial statements section of our report, including in relation to these matters. Accordingly, our audit included the performance of procedures designed to respond to our assessment of the risks of material misstatement of the financial statements. The results of our audit procedures, including the procedures performed to address the matters below, provide the basis for our audit opinion on the accompanying financial statements.

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.

Key audit matter	How our audit addressed the Key Audit Matter
Revenue recognition The accounting principles and disclosures concerning revenues are disclosed in Note 2.1. Revenue recognition is considered as a key audit matter because revenues are a key financial performance measure which could create an incentive for revenues to be recognized prematurely. Relevant areas from the revenue recognition perspective are accuracy of the recognized amounts and timing of revenue recognition. Revenue recognition was determined to be a key audit matter and a significant risk of material misstatement referred to in EU Regulation No 537/2014, point (c) of Article 10 (2).	Our audit procedures to address the risk of material misstatement included: • Assessment of Kemira's accounting policies over revenue recognition from IFRS standards' perspective. • Effectiveness testing of revenue recognition related application controls in the enterprise resource planning system used by Kemira. • Effectiveness testing of management's internal controls in sales process as well as analysis of identified control exceptions and their root cause. • On a sample basis an analysis of current sales contracts and evaluation of appropriateness of recognized revenue and its timing. • Analytical procedures over revenue transactions throughout the financial year to identify potential abnormal entries.

Key audit matter	How our audit addressed the Key Audit Matter
Valuation of goodwill The accounting principles and disclosures concerning goodwill are disclosed in Note 3.1. Valuation of goodwill was a key audit matter because • the assessment process is judgmental, • it is based on assumptions relating to market or economic conditions extending to the future, and • because of the significance of the goodwill to the financial statements. As of balance sheet date 31 December 2019, the value of goodwill amounted to 516 million euro representing 18 % of the total assets and 42 % of the total equity. The valuation of goodwill is based on management's estimate about the value-in-use calculations of the cash generating units. There are number of underlying assumptions used to determine the value-in-use, including the revenue growth, EBITDA and discount rate applied on net cash-flows. Estimated value-in-use may vary significantly when the underlying assumptions are changed and the changes in above-mentioned individual assumptions may result in an impairment of goodwill.	Our audit procedures regarding the valuation of goodwill included involving EY valuation specialists to assist us in evaluating methodologies, impairment calculations and underlying assumptions applied by the management in the impairment testing. In evaluation of methodologies, we compared the principles applied by the management in the impairment tests to the requirements set in IAS 36 Impairment of assets standard and ensured the mathematical accuracy of the impairment calculations. The key assumptions applied by the management in impairment tests were compared to • approved budgets and long-term forecasts, • information available in external sources, as well as • our independently calculated industry averages such as weighted average cost of capital used in discounting the cashflows. In addition, we compared the sum of discounted cash flows in impairment tests to Kemira's market capitalization. We also assessed the sufficiency of the disclosures as well as whether the disclosures about the sensitivity of the impairment assessment are appropriate.

Key audit matter	How our audit addressed the Key Audit Matter
Fair value measurement of other shares The accounting principles and disclosures concerning other shares are disclosed in Note 3.5. Fair value measurement of other shares was a key audit matter because • the value of other shares is material to the financial statements, and because • the fair value assessment process requires significant management judgment. As of balance sheet date 31 December 2019, the value of PVO / TVO shares included in other shares amounted to 243 million euro representing 8 % of the total assets and 20 % of the total equity. PVO / TVO shares represent majority of the balance sheet value of other shares. In determining the fair value of PVO / TVO shares, the management must make among other things an assessment regarding • future electricity production cost for PVO and TVO, • future electricity market prices applicable for Finland, and • discount rate applied on discounting the cashflows. Fair values of PVO and TVO shares may vary significantly when above-mentioned assumptions are changed.	Our audit procedures regarding the fair values of other shares included involving EY valuation specialists to assist us in evaluating appropriateness of methodologies, fair value calculations and underlying assumptions applied by the management. The key assumptions made by the management were compared to • estimates of future electricity production costs available on external sources, • estimates of future electricity market prices in Finland available on external sources, and • our independently calculated discount rate applicable for discounting of expected cashflows. In addition, we assessed the overall reasonableness of management's judgments. We also assessed the sufficiency and appropriateness of the disclosures regarding the other shares.

RESPONSIBILITIES OF THE BOARD OF DIRECTORS AND THE MANAGING DIRECTOR FOR THE FINANCIAL STATEMENTS

The Board of Directors and the Managing Director are responsible for the preparation of consolidated financial statements that give a true and fair view in accordance with International Financial Reporting Standards (IFRS) as adopted by the EU, and of financial statements that give a true and fair view in accordance with the laws and regulations governing the preparation of financial statements in Finland and comply with statutory requirements. The Board of Directors and the Managing Director are also responsible for such internal control as they determine is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, the Board of Directors and the Managing Director are responsible for assessing the parent company's and the group's ability to continue as 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 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 Managing Director's use of the going concern basis of accounting and based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the parent company's or the group's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the parent company or the group to cease to continue as a going concern.
- Evaluate the overall presentation, structure and content of the financial statements, including the disclosures, and whether the financial statements represent the underlying transactions and events so that the financial statements give a true and fair view.
- Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the group to express an opinion on the consolidated financial statements. We are responsible for the direction, supervision and performance of the group audit. We remain solely responsible for our audit opinion.

We communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

We also provide those charged with governance with a statement that we have complied with relevant ethical requirements regarding independence, and 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

INFORMATION ON OUR AUDIT ENGAGEMENT
We were first appointed as auditors by the Annual General Meeting on 21 March 2019.

OTHER INFORMATION
The Board of Directors and the Managing Director are responsible for the other information. The other information comprises the report of the Board of Directors and the information included in the Annual Report, but does not include the financial statements and our auditor's report thereon. We have obtained the report of the Board of Directors prior to the date of this auditor's report, and the Annual Report is expected to be made available to us after that date.

Our opinion on the financial statements does not cover the other information.

In connection with our audit of the financial statements, our responsibility is to read the other information identified above and, in doing so, consider whether the other information is materially inconsistent with the financial statements or our knowledge obtained in the audit, or otherwise appears to be materially misstated. With respect to 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 other information that we obtained prior to the date of this auditor's report, we conclude that there is a material misstatement of this other information, we are required to report that fact. We have nothing to report in this regard.

OTHER OPINIONS ON ASSIGNMENT OF THE BOARD OF DIRECTORS
We support that the financial statements should be adopted. The proposal by the Board of Directors regarding the use of the profit shown on the balance sheet is in compliance with the Limited Liability Companies Act. We support that the Board of Directors of the parent company and the Chief Executive Officer should be discharged from liability for the financial period audited by us.

Helsinki, 10 February 2020

Ernst & Young Oy
Authorized Public Accountant Firm

Mikko Rytilahti
Authorized Public Accountant

Group key figures

Kemira provides certain financial performance measures (alternative performance measures), which are not defined by IFRS. Kemira believes that alternative performance measures followed by capital markets and Kemira management, such as organic growth*, EBITDA, operative EBITDA, cash flow after investing activities as well as gearing, provide useful information about Kemira's comparable business performance and financial position. Selected alternative performance measures are also used as performance criteria concerning remuneration.

Kemira's alternative performance measures should not be viewed in isolation to the equivalent IFRS measures and alternative performance measures should be read in conjunction with the most directly comparable IFRS measures. Definitions of the alternative performance measures can be found in the Definitions of the key figures in these Financial Statements, as well as at **www.kemira.com** > Investors > Financial information.

Kemira adopted IFRS 16 Leases -standard on January 1, 2019. The comparative figures were not restated on date of transition to IFRS 16. In 2019, the key figures (except revenue and capital expenditure) of Income Statements, Balance Sheet and cash flow have been impacted by the adoption of IFRS 16.

* Revenue growth in local currencies, excluding acquisitions and divestments.

	2019	2018	2017	2016	2015
INCOME STATEMENT AND PROFITABILITY					
Revenue, EUR million	2,659	2,593	2,486	2,363	2,373
Operative EBITDA, EUR million	410	323	311	303	287
Operative EBITDA, %	15.4	12.5	12.5	12.8	12.1
EBITDA, EUR million [1)]	382	315	282	284	264
EBITDA, %	14.4	12.1	11.4	12.0	11.1
Operative EBIT, EUR million	224	174	170	170	163
Operative EBIT, %	8.4	6.7	6.9	7.2	6.9
Operating profit (EBIT), EUR million [1)]	194	148	141	147	133
Operating profit (EBIT), %	7.3	5.7	5.7	6.2	5.6
Share of the results of associates, EUR million [1)]	0	0	0	0	0
Finance costs (net), EUR million	40	25	29	19	31
% of revenue	1.5	1.0	1.2	0.8	1.3
Interest cover, EUR million [1)]	9.6	12.6	9.8	14.9	8.6
Profit before tax, EUR million	155	123	113	128	102
% of revenue	5.8	4.8	4.5	5.4	4.3
Net profit for the period (attributable to equity owners of the parent company), EUR million	110	89	79	92	71
Return on investment (ROI), %	8.4	7.0	6.5	7.2	6.6
Return of equity (ROE), %	9.2	7.6	6.7	7.8	6.1
Capital employed, EUR million	1,998	1,781	1,763	1,718	1,660
Operative return on capital employed (ROCE), %	11.2	9.8	9.7	9.9	9.8
Return on capital employed (ROCE), %	9.7	8.3	8.0	8.6	8.0
Research and development expenses, EUR million	30	30	30	32	32
% of revenue	1.1	1.2	1.2	1.4	1.3

	2019	2018	2017	2016	2015
CASH FLOW					
Net cash generated from operating activities, EUR million	386	210	205	271	248
Proceeds from sale of subsidiaries and property, plant and equipment and intangible assets, EUR million	8	7	3	37	3
Capital expenditure, EUR million	204	194	190	211	305
% of revenue	7.7	7.5	7.6	8.9	12.9
Capital expenditure excl. acquisitions, EUR million	201	150	190	213	182
% of revenue	7.6	5.8	7.6	9.0	7.7
Cash flow after investing activities, EUR million	190	29	13	98	-54
Cash flow return on capital invested (CFROI), %	16.5	9.4	9.3	12.5	12.1
BALANCE SHEET AND SOLVENCY					
Non-current assets, EUR million	2,090	1,901	1,842	1,822	1,825
Shareholders' equity (Equity attributable to equity owners of the parent company), EUR million	1,218	1,190	1,159	1,170	1,180
Total equity including non-controlling interests, EUR million	1,231	1,203	1,173	1,183	1,193
Total liabilities, EUR million	1,660	1,561	1,502	1,438	1,402
Total assets, EUR million	2,891	2,764	2,675	2,621	2,595
Net working capital	211	260	211	195	218
Interest-bearing net liabilities, EUR million	811	741	694	634	642
Equity ratio, %	43	44	44	45	46
Gearing, %	66	62	59	54	54
Interest-bearing net liabilities per EBITDA	2.1	2.4	2.5	2.2	2.4

	2019	2018	2017	2016	2015
PERSONNEL					
Personnel at period-end	5,062	4,915	4,732	4,818	4,685
Personnel (average)	5,020	4,810	4,781	4,802	4,559
of whom in Finland	812	821	822	807	793
EXCHANGE RATES					
Key exchange rates on Dec 31					
USD	1.123	1.145	1.199	1.054	1.089
CAD	1.460	1.561	1.504	1.419	1.512
SEK	10.447	10.255	9.844	9.553	9.190
CNY	7.821	7.875	7.804	7.320	7.061
BRL	4.516	4.444	3.973	3.431	4.312
PER SHARE FIGURES					
Earnings per share (EPS), basic and diluted, EUR [2]	0.72	0.58	0.52	0.60	0.47
Net cash generated from operating activities per share, EUR [2]	2.53	1.38	1.35	1.78	1.63
Dividend per share, EUR [2] [3]	0.56	0.53	0.53	0.53	0.53
Dividend payout ratio, % [2] [3]	77.6	90.7	102.7	88.0	113.5
Dividend yield, % [2] [3]	4.2	5.4	4.6	4.4	4.9
Equity per share, EUR [2]	7.98	7.80	7.61	7.68	7.76
Price per earnings per share (P/E ratio) [2]	18.37	16.85	22.29	20.14	23.29
Price per equity per share [2]	1.66	1.26	1.51	1.58	1.40
Price per cash flow from operations per share [2]	5.24	7.14	8.54	6.83	6.68
Dividend paid, EUR million [3]	85.5	80.8	80.7	80.8	80.7

	2019	2018	2017	2016	2015
SHARE PRICE AND TRADING					
Share price, high, EUR	14.99	12.03	12.44	12.55	12.27
Share price, low, EUR	9.77	9.34	10.33	8.92	9.14
Share price, average, EUR	12.56	11.00	11.47	10.96	10.86
Share price on Dec 31, EUR	13.26	9.85	11.50	12.13	10.88
Number of shares traded (1,000)	53,048	43,837	54,169	64,827	74,877
% on number of shares	35	29	36	42	49
Market capitalization on Dec 31, EUR million 2)	2,024.1	1,502.2	1,752.1	1,848.2	1,654.4
NUMBER OF SHARES AND SHARE CAPITAL					
Average number of shares, basic (1,000) 2)	152,630	152,484	152,359	152,314	152,059
Average number of shares, diluted (1,000) 2)	153,071	152,768	152,594	152,526	152,395
Number of shares on Dec 31, basic (1,000) 2)	152,649	152,510	152,354	152,367	152,062
Number of shares on Dec 31, diluted (1,000) 2)	153,385	152,927	152,512	152,619	152,544
Increase (+) / decrease (-) in number of shares outstanding (1,000)	139	156	-14	305	11
Share capital, EUR million	221.8	221.8	221.8	221.8	221.8

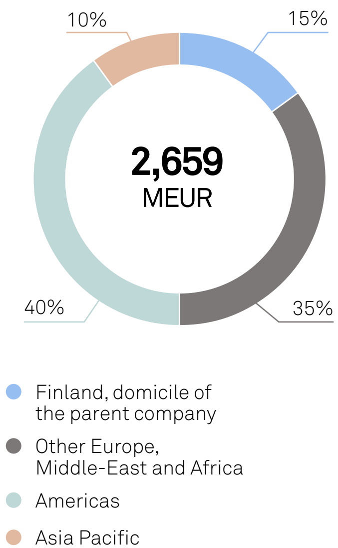
1) In 2019, the share of profit or loss of associates line item has been changed in the in the Consolidated Income Statement as a way that the item is presented in the Consolidated Income Statement as the item included in operating profit (EBIT). Previous financial periods, the share of the results of associates is presented after the finance costs, net.

2) Number of shares outstanding, excluding the number of treasury shares.

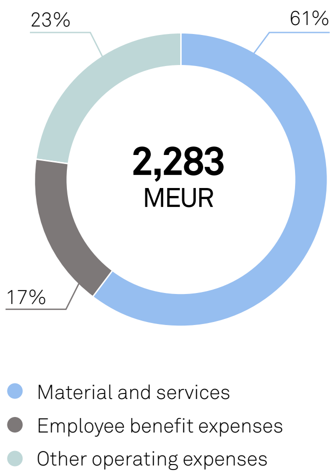
3) The dividend for 2019 is the Board of Directors' proposal to the Annual General Meeting.

Kemira

REVENUE BY GEOGRAPHICAL AREAS

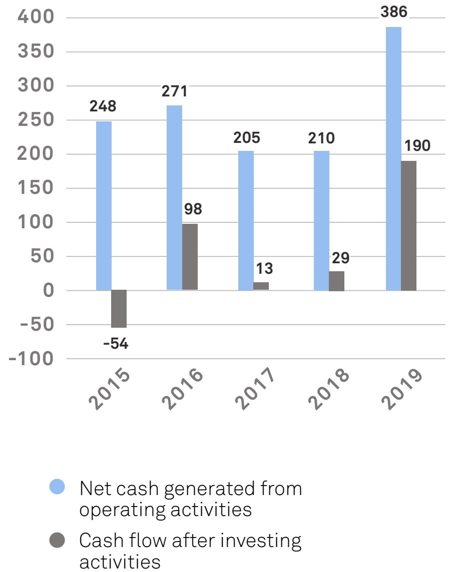


OPERATING EXPENSES

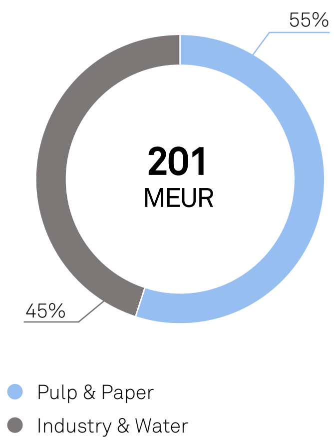


CASH FLOW

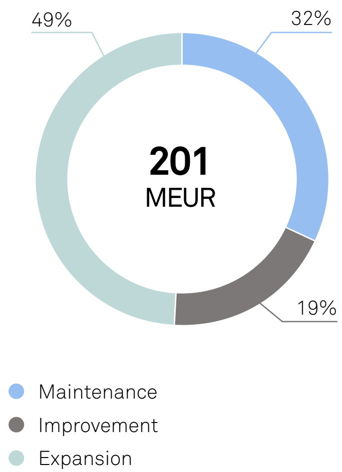
EUR million



CAPITAL EXPENDITURE BY SEGMENT EXCLUDING ACQUISITIONS

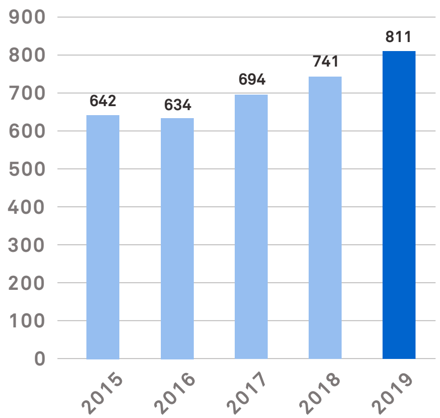


CAPITAL EXPENDITURE EXCLUDING ACQUISITIONS



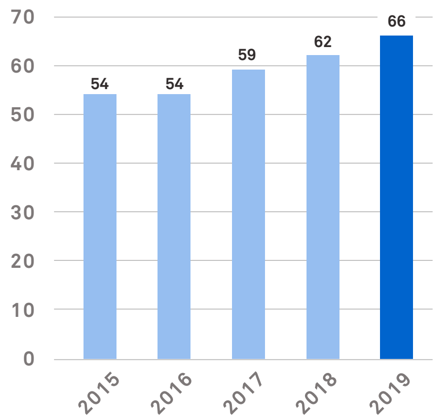
INTEREST-BEARING NET LIABILITIES

EUR million

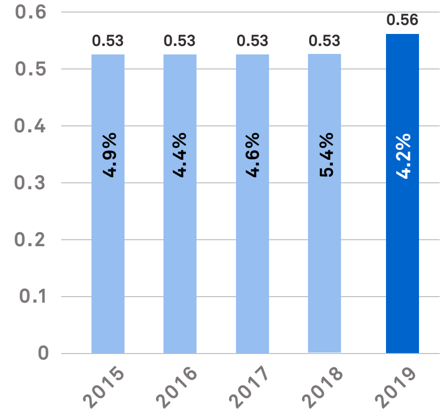


GEARING

%



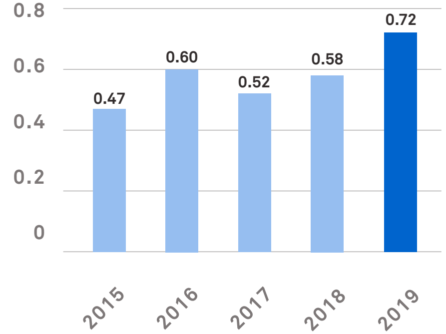
DIVIDEND PER SHARE, EUR AND DIVIDEND YIELD, %*



* The dividend for 2019 is the Board of Directors' proposal to the Annual General Meeting.

EARNINGS PER SHARE

EUR



Definition of key figures

FINANCIAL FIGURES

Key figure			Definition
Operative EBITDA	=		Operating profit (EBIT) + depreciation and amortization + impairments +/- items affecting comparability
Items affecting comparability [1]	=		Restructuring and streamlining programs + transaction and integration expenses in acquisitions + divestment of businesses and other disposals + other items
Operative EBIT	=		Operating profit (EBIT) +/- items affecting comparability
Interest-bearing net liabilities	=		Interest-bearing liabilities - cash and cash equivalents
Equity ratio (%)	=	100 x	Total equity / Total assets - prepayments received
Gearing (%)	=	100 x	Interest-bearing net liabilities / Total equity
Interest cover	=		EBITDA / Finance costs, net
Return on investments (ROI) (%)	=	100 x	Profit before tax + interest expenses + other financial expenses / Total assets - non-interest-bearing liabilities [2]
Return on equity (ROE) (%)	=	100 x	Net profit attributable to equity owners of the parent company / Equity attributable to equity owners of the parent company [2]
Cash flow return on investment (CFROI) (%)	=	100 x	Net cash generated from operating activities / Total assets - interest-free liabilities [2]
Cash flow after investing activities	=		Net cash generated from operating activities + net cash used in investing activities
Operative return on capital employed (operative ROCE) (%)	=	100 x	Operative EBIT [3] / Capital employed [4]
Return on capital employed (ROCE) (%)	=	100 x	Operating profit (EBIT) [3] / Capital employed [4]
Capital turnover	=		Revenue / Capital employed [4]
Interest-bearing net liabilities / EBITDA	=		Interest-bearing net liabilities / Operating profit (EBIT) + depreciation and amortization + impairments
Net financial cost (%)	=	100 x	Finance costs, net - dividend income +/- exchange rate differences / Interest-bearing net liabilities [2]
Net working capital	=		Inventories + trade receivables + other receivables, excluding derivatives, accrued interest income and other financing items - trade payables - other liabilities, excluding derivatives, accrued interest expenses and other financing items
Capital employed	=		Property, plant and equipment + right-of-use assets + intangible assets + net working capital + investments in associates

1) Financial performance measures which are not defined by IFRS may include items of income and expenses that affect the comparability of the financial reporting of Kemira Group. Restructuring and streamlining programs, transaction and integration expenses in acquisitions, divestments of businesses and other disposals are considered the most common items affecting comparability.

2) Average

3) Operating profit (EBIT) taken into account for 12-month rolling average at the end of the review period.

4) 12-month rolling average

PER SHARE FIGURES

Earnings per share (EPS)	=		Net profit attributable to equity owners of the parent company / Average number of shares
Net cash generated from operating activities per share	=		Net cash generated from operating activities / Average number of shares
Dividend per share	=		Dividend paid / Number of shares on Dec 31
Dividend payout ratio (%)	=	100 x	Dividend per share / Earnings per share (EPS)
Dividend yield (%)	=	100 x	Dividend per share / Share price on Dec 31
Equity per share	=		Equity attributable to equity owners of the parent company on Dec 31 / Number of shares on Dec 31
Share price, year average	=		Shares traded (EUR) / Shares traded (volume)
Price per earnings per share (P/E)	=		Share price on Dec 31 / Earnings per share (EPS)
Price per equity per share	=		Share price on Dec 31 / Equity per share attributable to equity owners of the parent company
Price per net cash generated from operating activities per share	=		Share price on Dec 31 / Net cash generated from operating activities per share
Share turnover (%)	=	100 x	Number of shares traded in main stock exchange / Average number of shares

Reconciliation of IFRS figures

EUR million	1-3	4-6	7-9	10-12	2019 Total	1-3	4-6	7-9	10-12	2018 Total
ITEMS AFFECTING COMPARABILITY IN EBITDA AND EBIT										
Operative EBITDA										
Pulp & Paper	50.7	53.7	61.3	52.6	218.3	42.7	45.4	52.3	51.2	191.7
Industry & Water	45.0	52.4	56.8	37.5	191.7	26.6	34.8	36.7	33.3	131.5
Total	95.6	106.1	118.1	90.1	410.0	69.4	80.2	89.0	84.5	323.1
Total items affecting comparability	-3.1	-4.0	0.0	-20.5	-27.7	-1.2	2.3	-6.2	-3.2	-8.3
EBITDA	92.5	102.1	118.1	69.6	382.3	68.2	82.5	82.8	81.3	314.8
Operative EBIT										
Pulp & Paper	20.6	24.0	32.1	22.5	99.2	18.9	22.0	26.6	24.1	91.6
Industry & Water	29.5	36.3	39.0	19.9	124.7	15.0	23.0	23.4	20.8	82.2
Total	50.1	60.3	71.1	42.4	224.0	33.9	45.1	50.0	44.8	173.8
Total items affecting comparability	-3.1	-4.0	-2.0	-20.5	-29.6	-1.2	-6.6	-14.1	-3.7	-25.6
EBIT	47.0	56.3	69.2	21.9	194.4	32.7	38.5	35.9	41.1	148.2
Operative EBITDA	95.6	106.1	118.1	90.1	410.0	69.4	80.2	89.0	84.5	323.1
Restructuring and streamlining programs	-0.4	-1.9	-0.5	-10.7	-13.5	0.0	-0.8	-5.5	-2.7	-8.9
Transaction and integration expenses in acquisition	-0.5	0.0	0.0	2.7	2.2	-0.2	0.0	0.0	3.1	2.8
Divestment of businesses and other disposals	0.9	0.0	0.8	-0.8	0.9	0.0	5.7	0.0	0.0	5.7
Other items	-3.2	-2.1	-0.3	-11.6	-17.2	-1.0	-2.6	-0.8	-3.6	-7.9
Total items affecting comparability	-3.1	-4.0	0.0	-20.5	-27.7	-1.2	2.3	-6.2	-3.2	-8.3
EBITDA	92.5	102.1	118.1	69.6	382.3	68.2	82.5	82.8	81.3	314.8
Operative EBIT	50.1	60.3	71.1	42.4	224.0	33.9	45.1	50.0	44.8	173.8
Total items affecting comparability in EBITDA	-3.1	-4.0	0.0	-20.5	-27.7	-1.2	2.3	-6.2	-3.2	-8.3
Items affecting comparability in depreciation, amortization and impairments	0.0	0.0	-1.9	0.0	-1.9	0.0	-8.9	-7.9	-0.5	-17.3
Operating profit (EBIT)	47.0	56.3	69.2	21.9	194.4	32.7	38.5	35.9	41.1	148.2

EUR million	1-3	4-6	7-9	10-12	2019 Total	1-3	4-6	7-9	10-12	2018 Total
ROCE AND OPERATIVE ROCE										
Operative EBIT	50.1	60.3	71.1	42.4	224.0	33.9	45.1	50.0	44.8	173.8
Operating profit (EBIT)	47.0	56.3	69.2	21.9	194.4	32.7	38.5	35.9	41.1	148.2
Share of the results of associates	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Capital employed	1,843.6	1,901.0	1,961.8	1,998.2	1,998.2	1,753.9	1,754.6	1,759.5	1,781.4	1,781.4
Operative ROCE, %	10.3	10.8	11.5	11.2	11.2	9.7	9.7	9.8	9.8	9.8
ROCE, %	8.8	9.5	10.9	9.7	9.7	8.1	8.3	8.5	8.3	8.3
NET WORKING CAPITAL										
Inventories	300.8	304.0	304.6	260.6	260.6	237.1	254.9	268.6	283.8	283.8
Trade receivables and other receivables	417.4	413.1	415.1	378.8	378.8	423.7	449.2	457.3	420.2	420.2
Excluding financing items in other receivables	-16.9	-16.3	-17.0	-11.9	-11.9	-22.2	-33.4	-33.1	-32.5	-32.5
Trade payables and other liabilities	522.2	421.7	442.2	455.7	455.7	495.2	405.4	421.5	439.1	439.1
Excluding financing items in other liabilities	-115.5	-23.6	-38.9	-38.8	-38.8	-96.5	-12.3	-9.9	-28.0	-28.0
Net working capital	294.5	313.4	299.3	210.7	210.7	240.0	277.6	281.1	260.4	260.4
INTEREST-BEARING NET LIABILITIES										
Non-current interest-bearing liabilities	790.8	790.4	792.1	737.9	737.9	758.8	658.4	653.1	646.3	646.3
Current interest-bearing liabilities	266.9	222.4	181.5	216.6	216.6	148.9	243.5	236.1	240.0	240.0
Interest-bearing liabilities	1,057.8	1,012.8	973.6	954.5	954.5	907.7	902.0	889.2	886.3	886.3
Cash and cash equivalents	216.2	91.6	107.2	143.1	143.1	229.9	129.3	144.9	144.9	144.9
Interest-bearing net liabilities	841.6	921.1	866.4	811.4	811.4	677.8	772.6	744.3	741.4	741.4

Quarterly Earning Performance

EUR million	1-3	4-6	7-9	10-12	2019 Total	1-3	4-6	7-9	10-12	2018 Total
Revenue										
Pulp & Paper	380.8	373.4	382.9	385.9	1,522.9	368.7	376.0	385.2	390.4	1,520.2
Industry & Water	267.0	290.2	306.9	271.8	1,135.9	245.0	271.7	284.4	271.5	1,072.6
Total	647.8	663.6	689.8	657.7	2,658.8	613.7	647.6	669.6	661.8	2,592.8
EBITDA [1)]										
Pulp & Paper	48.8	51.0	60.8	31.8	192.4	42.1	44.6	48.2	53.0	187.8
Industry & Water	43.7	51.1	57.3	37.8	189.9	26.1	38.0	34.6	28.3	127.0
Total	92.5	102.1	118.1	69.6	382.3	68.2	82.5	82.8	81.3	314.8
EBIT [1)]										
Pulp & Paper	18.8	21.3	31.6	1.7	73.4	18.2	21.1	14.6	25.8	79.8
Industry & Water	28.2	35.0	37.6	20.2	121.0	14.5	17.4	21.3	15.3	68.5
Total	47.0	56.3	69.2	21.9	194.4	32.7	38.5	35.9	41.1	148.2
Finance costs, net	-8.8	-10.0	-10.5	-10.4	-39.7	-3.9	-7.4	-7.9	-5.8	-25.0
Share of the results of associates	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Profit before tax	38.2	46.3	58.7	11.5	154.7	28.8	31.1	28.1	35.4	123.3
Income taxes	-8.9	-11.1	-15.3	-3.0	-38.2	-5.8	-7.5	-5.9	-8.9	-28.1
Net profit for the period	29.3	35.2	43.3	8.6	116.5	23.0	23.5	22.1	26.5	95.2
Net profit attributable to										
Equity owners of the parent	27.9	33.6	41.5	7.0	110.2	21.3	21.8	20.6	25.5	89.1
Non-controlling interests	1.4	1.6	1.8	1.5	6.3	1.7	1.8	1.5	1.0	6.1
Net profit for the period	29.3	35.2	43.3	8.6	116.5	23.0	23.5	22.1	26.5	95.2
Earning per share, basic, EUR	0.18	0.14	0.27	0.05	0.72	0.14	0.14	0.14	0.17	0.58
Earning per share, diluted, EUR	0.18	0.14	0.27	0.05	0.72	0.14	0.14	0.14	0.17	0.58

1) Includes items affecting comparability.

Shares and shareholders

SHARES AND SHARE CAPITAL

On December 31, 2019 Kemira Oyj's share capital amounted to EUR 221.8 million and the number of shares was 155,342,557. Each share entitles to one vote at the general meeting. Kemira Oyj's shares are registered in the book-entry system maintained by Euroclear Finland Ltd.

SHAREHOLDERS

At the end of December, Kemira Oyj had 33,345 registered shareholders (34,378 on December 31, 2018). Non-Finnish shareholders held 31.9% of the shares (27.4%), including nominee-registered holdings. Households owned 15.6% of the shares (17.1%). Kemira held 2,693,111 treasury shares (2,832,297), representing 1.7% (1.8%) of all company shares.

A list of Kemira's largest shareholders is updated monthly and can be found on the company website at **www.kemira.com** > Investors.

LISTING AND TRADING

Kemira Oyj's shares are listed on Nasdaq Helsinki. The trading code for the shares is KEMIRA and the ISIN code is FI0009004824.

Kemira Oyj's share price increased by 35% from the beginning of the year and closed at EUR 13.26 on the Nasdaq Helsinki at the end of December 2019 (9.85 on December 31, 2018). Shares registered a high of EUR 14.99 and a low of EUR 9.77 in January-December 2019, and the average share price was EUR 12.56. The company's market capitalization, excluding treasury shares, was EUR 2,024 million at the end of December 2019 (1,502).

In January-December 2019, Kemira Oyj's share trading turnover on the Nasdaq Helsinki was EUR 682 million (479 in January-December 2018). The average daily trading volume was 230,086 (175,444) shares.

In addition to Nasdaq Helsinki, Kemira shares are traded on several alternative market places or multilateral trading facilities (MTF), for example at BATS, Chi-X and Turquoise. The total share trading in 2019 was 74 million (68) shares, of which 28% (35%) was executed on other trading facilities than on Nasdaq Helsinki. Source: Nasdaq and Kemira.com.

Up-to-date information on Kemira's share price is available on the company's website at **www.kemira.com** > Investors.

DIVIDEND POLICY AND DIVIDEND DISTRIBUTION

On December 31, 2019, Kemira Oyj's distributable funds totaled EUR 848,948,241 of which net profit for the period was EUR 93,521,333. No material changes have taken place in the company's financial position after the balance sheet date.

Kemira Oyj's Board of Directors proposes to the Annual General Meeting to be held on March 25, 2020 that a dividend of EUR 0.56 per share totaling EUR 85 million shall be paid on the basis of the adopted balance sheet for the financial year ended December 31, 2019. The dividend will be paid in two installments. The first installment of EUR 0.28 per share will be paid to a shareholder who is registered in the company's shareholder register maintained by Euroclear Finland Oy on the record date for the dividend payment, March 27, 2020. The Board of Directors proposes that the first installment of the dividend be paid out on April 7, 2020. The second installment of EUR 0.28 per share will be paid in November 2020. The second installment will be paid to a shareholder who is registered in the company's shareholder register maintained by Euroclear Finland Oy on the record date for the dividend payment. The Board of Directors will decide the record date and the payment date for the second installment at the meeting scheduled for October 26, 2020. According to the current rules of

Euroclear Finland, the record date would then be October 28, 2020, and the dividend payment date November 4, 2020, at the earliest.

Kemira's dividend policy aims to pay a stable and competitive dividend.

BOARD AUTHORIZATIONS

The Annual General Meeting on March 21, 2019 authorized the Board of Directors to decide upon repurchase of a maximum of 5,100,000 company's own shares ("Share repurchases authorization"). Shares will be repurchased by using unrestricted equity either through a tender offer with equal terms to all shareholders at a price determined by the Board of Directors or otherwise than in proportion to the existing shareholdings of the company's shareholders in public trading on the Nasdaq Helsinki Ltd (the "Helsinki Stock Exchange") at the market price quoted at the time of the repurchase. The price paid for the shares repurchased through a tender offer under the authorization shall be based on the market price of the company's shares in public trading. The minimum price to be paid would be the lowest market price of the share quoted in public trading during the authorization period and the maximum price the highest market price quoted during the authorization period.

Shares shall be acquired and paid for in accordance with the Rules of the Helsinki Stock Exchange and Euroclear Finland Ltd. Shares may be repurchased to be used in implementing or financing mergers and acquisitions, developing the company's capital structure, improving the liquidity of the company's shares or to be used for the payment of the annual fee payable to the members of the Board of Directors or implementing the company's share-based incentive plans. In order to realize the aforementioned purposes, the shares acquired may be retained, transferred further or cancelled by the company. The Board of Directors will decide upon other terms related to share repurchases. The share repurchase authorization is valid until the end of the next Annual General Meeting. The Board had not exercised its authorization by December 31, 2019.

The AGM authorized the Board of Directors to decide to issue a maximum of 15,600,000 new shares and/or transfer a maximum of 7,800,000 company's own shares held by the company ("Share issue authorization"). The new shares may be issued and the company's own shares held by the company may be transferred either for consideration or without consideration. The new shares may be issued and the company's own shares held by the company may be transferred to the company's shareholders in proportion to their current shareholdings in the company, or by displaying the shareholders' pre-emption right, through a directed share issue, if the company has a weighty financial reason to do so, such as financing or implementing mergers and acquisitions, developing the capital structure of the company, improving the liquidity of the company's shares or if this is justified for the payment of the annual fee payable to the members of the Board of Directors or implementing the company's share-based incentive plans. The directed share issue may be carried out without consideration only in connection with the implementation of the company's share-based incentive plan. The subscription price of new shares shall be recorded to the invested unrestricted equity reserves. The consideration payable for company's own shares shall be recorded to the invested unrestricted equity reserves. The Board of Directors will decide upon other terms related to the share issues. The share issue authorization is valid until May 31, 2020. The share issue authorization has been used and shares owned by the Group were conveyed to members of the Board and key employees in connection with the remuneration.

MANAGEMENT SHAREHOLDING

The members of the Board of Directors as well as the President and CEO and his Deputy held 543,463 (511,885) Kemira Oyj shares on December 31, 2019 or 0.35% (0.33%) of all outstanding shares and voting rights (including treasury shares and shares held by the related parties and controlled corporations). Jari Rosendal, President and CEO, held 93,840 shares (77,200) on December 31, 2019. Members of the Management Board, excluding the President and CEO and his Deputy, held a total of 136,971 shares on December 31, 2019 (107,961), representing 0.09% (0.07%) of all outstanding shares and voting rights (including treasury shares and shares held by the related parties and controlled corporations). Up-to-date information regarding the shareholdings of the Board of Directors and Management is available on Kemira's website at **www.kemira.com** > Investors.

LARGEST SHAREHOLDERS DEC 31, 2019

	Shareholder	Number of shares	% of shares and votes
1	Oras Invest Ltd	31,278,217	20.1
2	Solidium Oy	15,782,765	10.2
3	Varma Mutual Pension Insurance Company	5,329,836	3.4
4	Ilmarinen Mutual Pension Insurance Company	4,118,851	2.7
5	Nordea Funds	2,558,202	1.7
6	Veritas Pension Insurance Company Ltd.	1,435,625	0.9
7	Oppiva Invest Oy	1,336,900	0.9
8	OP-Henkivakuutus Ltd.	1,262,134	0.8
9	Elo Mutual Pension Insurance Company	947,413	0.6
10	Säästöpankki Funds	946,672	0.6
11	Pohjola Fund Management	751,102	0.5
12	Nordea Life Insurance	730,166	0.5
13	Laakkonen Mikko Kalervo	600,000	0.4
14	The State Pension Fund	500,000	0.3
15	Paasikivi Pekka Johannes	434,000	0.3
	Kemira Oyj	2,693,111	1.7
	Nominee registered and foreign shareholders	49,593,969	31.9
	Others, Total	35,043,594	22.5
	Total	**155,342,557**	**100.0**

SHAREHOLDINGS BY NUMBER OF SHARES HELD ON DEC 31, 2019

Number of shares	Number of shareholders	% of share-holders	Shares total	% of share and votes
1–100	9,062	27.2	515,810	0.3
101–500	13,572	40.7	3,694,319	2.4
501–1,000	5,036	15.1	3,882,545	2.5
1,001–5,000	4,760	14.3	9,969,756	6.4
5,001–10,000	516	1.5	3,785,723	2.4
10,001–50,000	301	0.9	5,982,477	3.9
50,001–100,000	40	0.1	2,997,175	1.9
100,001–500,000	41	0.1	8,434,637	5.4
500,001–1,000,000	6	0.0	4,306,171	2.8
1,000,001–	11	0.0	111,773,944	72.0
Total	**33,345**	**100.0**	**155,342,557**	**100.0**

Information for investors

FINANCIAL REPORTS IN 2020

Kemira will publish three financial reports in 2020.

April 28, 2020: Interim report for January-March
July 17, 2020: Half-year financial report for January-June
October 27, 2020: Interim report for January-September

The financial reports and related presentation material are available on Kemira's website at **www.kemira.com** > Investors. Furthermore, Kemira's stock exchange and press releases, Annual Reports (incl. Corporate Responsibility Report and Financial Statements) and other investor information are also available on the website. On the site, visitors can register to receive releases by e-mail and order the company's Financial Statements. Financial Statements can also be ordered from Kemira Oyj, tel. +358 10 8611.

INVESTOR COMMUNICATIONS

The purpose of Kemira's investor communications is to provide capital markets with open and reliable information on the company and its operating environment in order to give market participants a factual overview of Kemira as an investment.

Kemira's investor communications aims to ensure that everyone operating in the markets has equal access to sufficient and correct information concerning the company, and to ensure that information is disclosed consistently and without delay.

Kemira Oyj is domiciled in Helsinki, Finland, and the company's shares are listed on Nasdaq Helsinki. Kemira Oyj complies with the laws of Finland and the regulations of Nasdaq Helsinki and Finland's Financial Supervisory Authority.

SILENT PERIOD

Kemira observes a silent period before issuing financial statements or interim reports. During the period, Kemira's representatives do not comment on Kemira's financial statements or interim reports for the ongoing reporting period the specific silent period relates to. The schedule for the silent period and publication of financial information and closed periods is displayed on Kemira's website at **www.kemira.com** > Investors > Investor Calendar. Kemira's Investor Relation function is responsible for keeping the calendar up-to-date.

ANNUAL GENERAL MEETING

Kemira's Annual General Meeting will be held on Wednesday, March 25, 2020 at 1.00 p.m. at Finlandia Hall, Mannerheimintie 13 e, Helsinki, Finland. A shareholder who on the record date of the Annual General Meeting, March 13, 2020, is registered in the company's shareholders' register maintained by Euroclear Finland Ltd, is entitled to attend and participate in the Annual General Meeting.

Registration to the Annual General Meeting has begun on February 11, 2020 and registration instructions has been published on that day as a stock exchange release and at Kemira's web site at **www.kemira.com** > Investors > Corporate Governance > Annual General Meeting > Annual General Meeting 2020.

Kemira will release a stock exchange release on the Annual General Meeting's decisions immediately after the meeting.

DIVIDEND DISTRIBUTION

For dividend proposal, please see page 95.

CHANGE OF ADDRESS

Kemira's shareholders are kindly requested to report any change of address to the bank or brokerage firm in which they have their book-entry account. This will also update information in registers, maintained by Euroclear Finland Ltd, which Kemira uses to send mail to its shareholders.

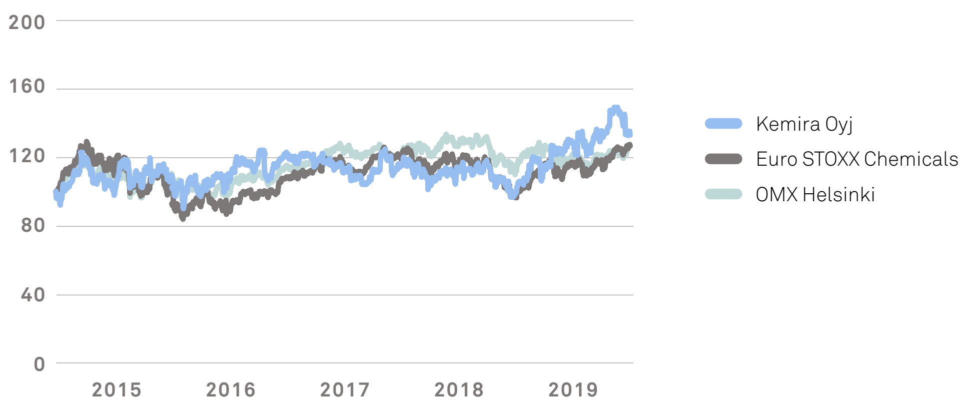
INVESTOR RELATIONS

Mikko Pohjala, Vice President, Investor Relations
tel. +358 40 838 0709
e-mail: mikko.pohjala@kemira.com

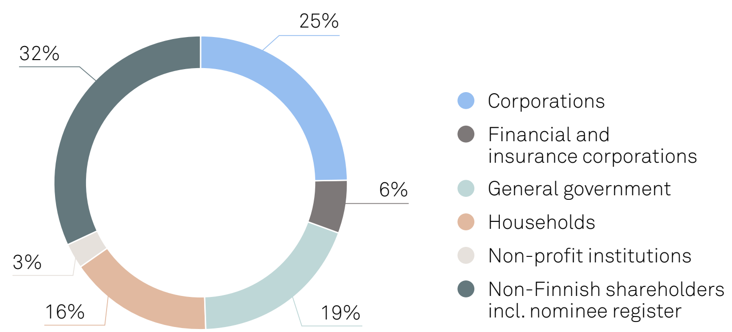
BASIC SHARE INFORMATION

Listed on: Nasdaq Helsinki Ltd
Trading code: KEMIRA
ISIN code: FI0009004824
Industry group: Materials
Industry: Chemicals
Number of shares on December 31, 2019: 155,342,557
Listing date: November 10, 1994

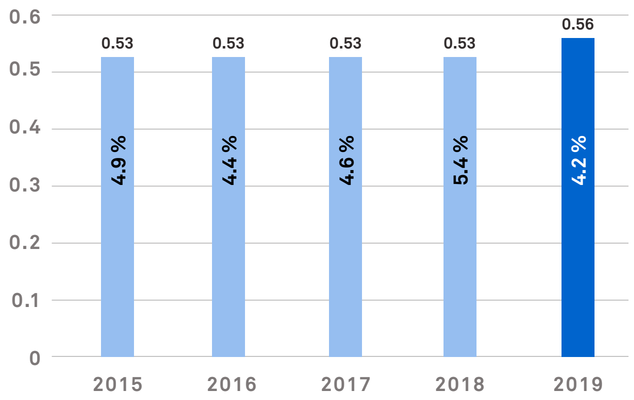
SHARE PRICE 2015–2019



OWNERSHIP DECEMBER 31, 2019

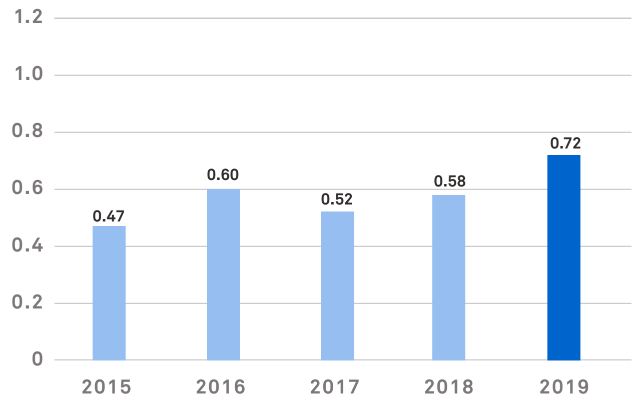


DIVIDEND PER SHARE, EUR AND DIVIDEND YIELD, %*



* The dividend for 2019 is the Board of Directors' proposal to the Annual General Meeting.

EARNINGS PER SHARE
EUR



KEMIRA is a global chemicals company serving customers in water intensive industries. We provide best suited products and expertise to improve our customers' product quality, process and resource efficiency. Our focus is on pulp & paper, oil & gas and water treatment. In 2019, Kemira had annual revenue of around EUR 2.7 billion and over 5,000 employees. Kemira shares are listed on the Nasdaq Helsinki Ltd.

WWW.KEMIRA.COM