Kemira Oyj

Financial Statements 2021

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*) Part of the audited Financial Statements 2021

This Financial Statements and Board of Directors' review 2021 have not been prepared in accordance with ESEF (European Single Electronic Format) regulations. The Financial Statements and Board of Directors' review 2021 in accordance with ESEF regulations are available electronically as an xHTML document in which the primary statements in the Financial Statements are marked with XBRL tags. The ESEF requirement is based on the harmonization of transparency requirements for listed companies pursuant to the Transparency Directive (2004/109/EC) and its amending Directive (2013/50/EU), as well as the European Commission Delegation Regulation (2019/815/EU). In Finland, the directive has been implemented in the Securities Markets Act (AML 7:5§). The Financial Statements and Board of Directors' review 2021 in accordance with ESEF regulations are available at ***www.kemira.com***

Board of Directors' Review 2021

In 2021, Kemira Group's revenue increased by 10% to a record-high, EUR 2,674.4 million (2,427.2). Revenue in local currencies, excluding acquisitions and divestments, increased strongly by 11% mainly due to higher sales volumes.

Operative EBITDA decreased by 2% to EUR 425.5 million (435.1). The operative EBITDA margin decreased to 15.9% (17.9%) following higher raw material and energy prices. EBITDA decreased by 10% to EUR 373.2 million (413.2). The differences between operative and reported figures are explained by items affecting comparability, which were mainly related to a provision caused by the expected underutilization of a single-asset energy company in Pori, Finland majority owned by Kemira via Pohjolan Voima, a damage claim settlement and restructuring costs.

EPS, diluted, decreased by 18% to EUR 0.70 (0.86), mainly due to items affecting comparability. The Board of Directors proposes to the Annual General Meeting 2022 a cash dividend of EUR 0.58 per share (0.58), totaling EUR 89 million (89). It is proposed that the dividend be paid in two installments.

KEY FIGURES AND RATIOS

EUR million	2021	2020	2019
Revenue	2,674.4	2,427.2	2,658.8
Operative EBITDA	425.5	435.1	410.0
Operative EBITDA, %	15.9	17.9	15.4
EBITDA	373.2	413.2	382.3
EBITDA, %	14.0	17.0	14.4
Operative EBIT	225.4	237.7	224.0
Operative EBIT, %	8.4	9.8	8.4
EBIT	170.1	215.9	194.4
EBIT, %	6.4	8.9	7.3
Net profit for the period	115.2	138.0	116.5
Earnings per share, EUR	0.70	0.86	0.72

EUR million	2021	2020	2019
Capital employed*	1,995.0	1,964.9	1,998.2
Operative ROCE*, %	11.3	12.1	11.2
ROCE*, %	8.5	11.0	9.7
Cash flow from operating activities	220.2	374.7	386.2
Capital expenditure excl. acquisition	168.8	195.6	201.1
Capital expenditure	169.8	198.2	204.1
Cash flow after investing activities	57.3	173.3	189.8
Equity ratio, % at period-end	42.8	43.2	42.6
Equity per share, EUR	8.68	7.80	7.98
Gearing, % at period-end	63.3	63.0	65.9
Personnel (average)	4,947	5,038	5,020

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

Unless otherwise stated, all comparisons in this report are made to the corresponding period in 2020. 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 revenue growth in local currencies, excluding acquisitions and divestments (=organic growth), EBITDA, operative EBITDA, operative EBIT, cash flow after investing activities, and 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 from 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 total figure presented.

In addition to the above key figures and ratios, other key figures which are describing the Group's financial performance are presented in the Other financial information section under Group key figures.

FINANCIAL PERFORMANCE IN 2021

Revenue increased strongly by 10%. Revenue in local currencies, excluding acquisitions and divestments, increased by 11% mainly due to higher sales volumes and sales prices.

Revenue	2021 EUR, million	2020 EUR, million	Δ%	Organic growth*, %	Currency impact, %	Acq. & div. impact, %
Pulp & Paper	1,559.6	1,457.6	+7	+8	-1	0
Industry & Water	1,114.8	969.5	+15	+16	-1	0
Total	2,674.4	2,427.2	+10	11	-1	0

*Revenue growth in local currencies, excluding acquisitions and divestments

Geographically, the revenue split was as follows: EMEA (Europe, Middle East, Africa) 51% (54%), the Americas 38% (35%), and Asia Pacific 11% (11%).

Operative EBITDA was EUR 425.5 million (435.1). Variable costs increased following significant raw material and energy price inflation, which was mostly compensated by higher sales prices and sales volumes. The operative EBITDA margin decreased due to higher raw material and energy prices.

Variance analysis, EUR million	Jan-Dec
Operative EBITDA, 2020	435.1
Sales volumes	+73.0
Sales prices	+107.0
Variable costs	-197.5
Fixed costs	+2.2
Currency exchange	-6.2
Others	+11.8
Operative EBITDA, 2021	425.5

Operative EBITDA	2021 EUR, million	2020 EUR, million	Δ%	2021 %-margin	2020 %-margin
Pulp & Paper	244.7	260.2	-6	15.7	17.9
Industry & Water	180.8	174.8	+3	16.2	18.0
Total	425.5	435.1	-2	15.9	17.9

EBITDA decreased by 10% to EUR 373.2 million (413.2). The difference between it and operative EBITDA is explained by items affecting comparability. **Items affecting comparability** consisted mainly of a provision caused by the expected underutilization of a single-asset energy company in Pori, Finland majority owned by Kemira via Pohjolan Voima, a damage claim settlement with CDC, provisions related to site closures and restructuring. The comparison period consisted mainly of Kemira's liabilities in a small energy company owned via Pohjolan Voima as well as organizational restructuring costs in Pulp & Paper and in the Oil & Gas business.

Items affecting comparability, EUR million	2021	2020
Within EBITDA	-52.4	-21.8
Pulp & Paper	-46.5	-20.0
Industry & Water	-5.9	-1.8
Within depreciation, amortization and impairments	-3.0	0.0
Pulp & Paper	-0.1	0.0
Industry & Water	-2.9	0.0
Total items affecting comparability in EBIT	-55.4	-21.8

Depreciation, amortization and impairments increased to EUR 203.1 million (197.4), including the EUR 12.1 million (14.8) amortization of the purchase price allocation.

Operative EBIT decreased by 5% compared to the previous year. **EBIT** decreased by 21%, and the difference between the two is explained by items affecting comparability, which consisted of a provision caused by the expected underutilization of a single-asset energy company in Pori, Finland majority owned by Kemira via Pohjolan Voima, a damage claim settlement with CDC, provisions related to site closures and restructuring. The comparison period consisted mainly of Kemira's liabilities in a small energy company owned via Pohjolan Voima as well as organizational restructuring costs in Pulp & Paper and in the Oil & Gas business.

Net finance costs totaled EUR -26.7 million (-34.9), including a gain of EUR 5.6 million arising from bond liability management in March 2021, when EUR 97 million of outstanding notes maturing in 2022 were exchanged for a EUR 200 million issuance of new senior unsecured notes. **Income taxes** were EUR -28.2 million (-43.0), with the reported tax rate being 20% (24%). The reported tax rate declined following a regional business model change. **Net profit** for the period decreased by 17%, mainly due to items affecting comparability.

FINANCIAL POSITION AND CASH FLOW

Cash flow from operating activities in January–December 2021 decreased to EUR 220.2 million (374.7) following a lower net profit for the period and changes in net working capital. During Q3 2021, Kemira paid EUR 22.75 million in compensations and costs to CDC related to a damage claim settlement. During Q1 2021, Kemira's supplementary pension fund in Finland, Neliapila, returned excess capital totaling EUR 3 million to Kemira. Cash flow after investing activities was EUR 57.3 million (173.3).

At the end of the period, interest-bearing liabilities totaled EUR 992.2 million (918.8), including lease liabilities of EUR 136.8 million (121.4). The average interest rate of the Group’s interest-bearing loan portfolio (excluding leases) was 1.7% (1.9%), and the duration was 29 months (20). Fixed-rate loans accounted for 80% (74%) of net interest-bearing liabilities, including lease liabilities.

In March 2021, EUR 97 million of outstanding notes maturing in 2022 were exchanged for a EUR 200 million issuance of new senior unsecured notes. The new bond will mature on March 30, 2028 and it carries a fixed annual interest of 1.0 percent. The Group has a EUR 400 million undrawn committed credit facility, linked to sustainability targets, which was extended in April by one year to 2026 in accordance with the extension option of the loan agreement.

Short-term liabilities maturing in the next 12 months amounted to EUR 215.3 million. On December 31, 2021, cash and cash equivalents totaled EUR 142.4 million (159.5).

At the end of the period, Kemira Group’s net debt was EUR 849.8 million (759.3), including lease liabilities. The equity ratio was 43% (43%), while gearing was 63% (63%).

Kemira is exposed to transaction and translation currency risks. The Group's most significant transaction currency risks arise from the Chinese renminbi, the US dollar, the Swedish krona and the Canadian dollar. At the end of the year, the Chinese renminbi exchange risk against EUR was approximately EUR 67 million, of which 36% was hedged on an average basis. The US dollar-denominated exchange rate risk against EUR had an equivalent value of approximately EUR 64 million, of which 53% was hedged on an average basis. The Swedish krona-denominated exchange rate risk against EUR had an equivalent value of approximately EUR 31 million, of which 62% was hedged on an average basis. The Canadian dollar-denominated exchange rate risk against EUR had an equivalent value of approximately EUR 26 million, of which 51% was hedged on an average basis. In addition, Kemira is exposed to smaller transaction risks against EUR, mainly in relation to the Norwegian krone, Polish zloty, Danish krone, Russian ruble and Thai baht, and against USD mainly in relation to the Brazilian real and Canadian dollar, with the annual exposure in those currencies being approximately EUR 103 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 US dollar and the Canadian dollar. A strengthening of currencies against the euro would increase Kemira’s revenue and EBITDA through a translation effect.

CAPITAL EXPENDITURE

In January–December 2021, capital expenditure excluding acquisitions decreased by 14% to EUR 168.8 million (195.6) due to timing of expansion capex projects. Capital expenditure (capex) can be broken down as follows: expansion capex 15% (37%), improvement capex 29% (23%), and maintenance capex 55% (40%).

RESEARCH AND DEVELOPMENT

In January–December 2021, total research and development expenses were EUR 28.3 million (28.9), 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 as well as 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 differentiated products and applications.

At the end of 2021, Kemira had 382 (367) patent families, including 1,972 (1,726) granted patents, and 996 (964) pending applications. During 2021, Kemira applied for 36 (37) new patents and started 12 new product development projects, all of which were planned to improve resource efficiency. At the same time, Kemira commercialized two new product development projects, both of them improving resource efficiency in the customer phase.

HUMAN RESOURCES

At the end of the period, Kemira Group had 4,926 employees (4,921). Kemira had 766 (771) employees in Finland, 1,750 (1,759) employees elsewhere in EMEA, 1,487 (1,467) in the Americas, and 923 (924) in APAC.

NON-FINANCIAL INFORMATION

DISCLOSURE OF NON-FINANCIAL INFORMATION

Kemira discloses its key non-financial information in this section according to the requirements in the EU Directive and Finnish Accounting Act. More information on the non-financial and sustainability matters is provided in the Annual Review's Overview section and in the Sustainability Report. The non-financial disclosures are based on the Global Reporting Initiative disclosures, which are prepared in accordance with the latest GRI standards and externally assured by an independent third-party. Kemira's most relevant risks are described separately in the risk section on page 16.

OVERVIEW OF KEMIRA'S BUSINESS

Kemira is a global leader in sustainable chemical solutions for water intensive industries and provides best suited products and expertise to improve our customers' product quality, process and resource efficiency. Kemira has two business areas: Pulp & Paper and Industry & Water. Kemira has operations in around 40 countries and had 63 manufacturing facilities at the end of 2021. In Pulp & Paper, Kemira offers chemical solutions for bleaching, packaging and printing and writing products. Main product categories in Pulp & Paper are bleaching chemicals, sizing and strength chemicals, various process chemicals and polymers. In Industry & Water, Kemira offers chemical solutions for municipal and industrial water treatment as well as the energy industry. Main product categories in Industry & Water are coagulants and polymers. More information on Kemira's value creation model can be found on page 9 of the Annual Review.

CORPORATE SUSTAINABILITY PRIORITIES

Kemira has systematic procedures in place to evaluate and address the economic, environmental, and social impacts of 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, and our sustainability work is guided by the UN Sustainable Development Goals (SDGs). Kemira is also committed to operating 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.

Kemira's sustainability work focuses on five themes, which cover the most material topics and their impact: Safety, People, Water, Circularity, and Climate. Kemira measures progress in the priority areas through group-level key performance indicators (KPI) and targets that are approved 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. Kemira also regularly reviews its stakeholders expectations and concerns regarding sustainability. The latest materiality analysis was conducted in 2021. The results are described in more detail on page 7 of Kemira's sustainability report.

MATERIAL TOPICS

Environmental and climate-related matters

Kemira has identified climate, circularity and water as its environmental sustainability focus areas. Kemira provides its customers with solutions that help to improve the resource efficiency of the customers' operations. In 2021 54% of Kemira's revenue came from products that improve customer resource efficiency.

In climate, we continuously strive to reduce our environmental impact. Kemira has committed to reducing its combined Scope 1 and Scope 2 emissions by 30% by 2030, from a 2018 baseline of 936 thousand tons CO2e. Our long-term ambition is to be carbon neutral by 2045 for combined Scope 1 and 2 emissions. Kemira works actively with its suppliers to find ways to reduce scope 3 emissions. In water, we work to mitigate water-related risks and grasp water-related opportunities. We actively follow and aim to continuously improve our freshwater use intensity. Our sustainability target as of 2022 is to reach Leadership level in CDP Water Security rating by 2025. In terms of circularity, we aim to reduce waste and increase the use of renewable raw materials. Our sustainability target is to reduce disposed production waste intensity by 15% by 2030. In 2020, we introduced a new group-level KPI to increase our revenue from biobased products and solutions from EUR 100 million to 500 EUR million by 2030. In conjunction with revenue target, Kemira is working to increase the share of renewable raw materials of its used raw materials. This will allow Kemira to reduce pressure on natural resources, and support our customers in moving away from fossil-based raw materials.

Social and employment-related matters

Kemira has identified people and safety as its social sustainability focus areas. Ensuring workplace safety is a key priority in all our operations. High people, process, and environmental safety performance is fundamental to our business and to our customers. Our target in safety is to improve TRIF (total recordable injury frequency per million working hours for Kemira's employees and contractors) to 1.5 by 2025 and to 1.1 by 2030. Also fostering a strong company culture and commitment to our employees are important success factors in our business. In people, our target is to reach the top 10% cross-industry norm for Diversity & Inclusion by 2025.

Respect for human rights

Our Code of Conduct is the foundation for how we conduct business at 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, the UN Guiding Principles on Business and Human Rights and the United Nations Global Compact, and we also expect our business partners to abide by these principles. 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. In 2021, Kemira re-assessed its Human Rights Impact Assessment.

Anti-corruption and bribery

Kemira's anti-corruption principles 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 full compliance with the Code. We maintain an ethics and compliance Whistleblowing line 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 2021.

Kemira's management approach to non-financial matters

More information in Kemira's Sustainability Report on page 11.

EU TAXONOMY

The European Union's target is to reduce net greenhouse gas emissions to zero by 2050. In order to reduce greenhouse gas emissions and to better engage the private sector in the green transition, the EU has introduced the EU taxonomy, a classification system to define environmentally sustainable business activities. The aim of the taxonomy is to classify economic activities based on their contribution to six objectives 1) climate change mitigation, 2) climate change adaptation, 3) sustainable use and protection of water and marine resources, 4) transition to a circular economy, 5) pollution prevention and control, and 6) protection and restoration of biodiversity and ecosystems.

Three financial indicators, turnover, capital expenditure (CapEx) and operating expenditure (OpEx), need to be reported according to the EU taxonomy.These indicators are defined by the EU taxonomy and the definitions differ from capex and opex used elsewhere in Kemira's financial reporting. In the first phase of the EU taxonomy reporting for financial year 2021, companies are required to disclose what proportion of their turnover, capex and opex are eligible according to the EU taxonomy's first two objectives: climate change mitigation and climate change adaptation.

Taxonomy-eligibility means that an activity is described in the taxonomy, which is an indication that it might have substantial contribution to one of the six environmental objectives of the taxonomy. In the second phase of the EU taxonomy reporting for financial year 2022, companies are required to report what proportion of their eligible turnover, capex and opex is aligned, i.e. environmentally sustainable, according to six objectives of the EU taxonomy criteria. Economic activities are considered to be aligned according to the EU taxonomy when they:

- Make a substantial contribution to one of the six objectives mentioned above and they comply with certain technical screening criteria.
- Do no significant harm (DNSH) to the achievement of any other objective mentioned above.
- Comply with minimum safeguards for occupational safety and human rights.

The taxonomy's first two objectives, climate change mitigation and adaptation, cover economic activities that are the most emission-intensive and / or have the largest ability to contribute to climate change mitigation and adaptation. For the manufacturing sector, which Kemira is considered to be part of, technical screening criteria has been defined for 11 economic activities. These include mainly the manufacturing of basic materials and chemicals such as chlorine, soda ash and hydrogen. The chemical sector is expected to be more broadly included in upcoming objectives 3-6.

Kemira's taxonomy eligibility in 2021 for the first two objectives

Key Performance Indicator	Share of taxonomy-eligible economic activities (%)	Share of taxonomy non-eligible economic activities (%)
Turnover	1	99
Capital expenditure (CapEx) as per definition of the EU Taxonomy	–	100
Operating expenditure (OpEx) as per definition of the EU Taxonomy	–	100

It should be noted that the term "Capital expenditure, capex" may be used elsewhere in Kemira's financial reporting in different contexts and the definitions may differ.Turnover in EU Taxonomy equals revenue in Kemira's financial reporting. Capex as per definition of the EU taxonomy equals Kemira's reported capital expenditure added with additions into right-of-use assets. Opex as per definition of the EU taxonomy equals direct R&D and maintenance expenditure.

In 2021, 1% of Kemira's turnover was eligible according to the EU Taxonomy and it mainly consisted of industrial by-products, such as hydrogen and waste heat that is sold for district heating. The taxonomy currently includes activities which have been seen to substantially contribute to climate change mitigation and adaptation. Kemira mostly produces specialty chemicals that are typically not emission-intensive. Therefore Kemira's main product lines are not included in the EU taxonomy's first two delegated acts and cannot be eligible.

In 2021, 0% of Kemira's capital expenditure and operating expenditure (as defined in the EU taxonomy) was eligible according to the EU taxonomy. As Kemira's eligible turnover consisted of industrial by-products, Kemira's capital or operating expenditure cannot be solely allocated to the industrial by-products nor does Kemira specifically spend capex / opex separately for the industrial by-products. Therefore Kemira's capex / opex eligibility is zero.

For financial year 2021, as is required, Kemira will only report the proportion of taxonomy-eligible activities for the first two environmental objectives. As of financial year 2022, Kemira will also report the proportion of taxonomy-aligned activities for all environmental objectives. Kemira closely follows the development of the upcoming objectives 3-6 and how it will impact the eligibility and alignment of Kemira's economic activities in future reporting. For more information on Kemira's sustainability targets, please refer to page 9.

CORPORATE SUSTAINABILITY PERFORMANCE

Kemira's sustainability work covers economical, environmental and social topics and is guided by the UN Sustainable Development Goals (SDGs). Our focus is on Clean Water and Sanitation (SDG6), Decent Work and Economic Growth (SDG8), Responsible consumption and production (SDG12), and Climate action (SDG13). More information on sustainability at Kemira can be found in the Sustainability report.

SUSTAINABILITY PERFORMANCE 2021

SAFETY

Kemira's safety performance saw a setback compared to the previous years and the TRIF rate was 2.7.

PEOPLE

Kemira measures the employees' perception of diversity and inclusion. In 2021, Kemira was slightly below the top 25% cross industry benchmark. Kemira's long-term goal is to reach the top 10% cross industry benchmark by 2025 and several initiatives were started in 2021 to reach the goal.

CIRCULARITY

Kemira's biobased strategy progressed during the year and the development work with external partnerships continued in 2021 with the first biodegradable coating sales for the paper and board industry taking place during the year. In 2021 Kemira selected ISCC PLUS certification system for the mass-balance accreditation. Kemira produces certified biobased products in ISCC accredited manufacturing facilities in Italy and the UK. Kemira continued work to improve waste intensity and started to collect waste data in a more granular way in 2021. Disposed production waste intensity increased slightly during the year due to the first year of full production at a new manufacturing site. Total hazardous waste declined by 41%.

WATER

Freshwater use intensity in 2021 improved following process improvements and changes in product portfolio towards less water-intensive products. Kemira updated its sustainability target for water as of 2022 and aims to reach the highest, Leadership level in water management by 2025 as measured by CDP Water Security. In 2021, Kemira participated for first time to the CDP Water Security assessment and received a B rating. Kemira also signed the CEO Water Mandate in December 2021.

CLIMATE

Scope 1 and 2 emissions declined by 3%, in line with Kemira's climate target. During 2021, Kemira continued to expand the use of renewable energy and the share of renewable energy increased to 31% of total purchased energy. In addition, Kemira started comprehensive work to better understand its scope 3 emissions and to identify opportunities to reduce emissions in its value chain.

SDG	KPI	UNIT	2021	2020
8 DECENT WORK AND ECONOMIC GROWTH	**SAFETY** **TRIF*** 1.5 by 2025 and 1.1 by 2030 *TRIF = total recordable injury frequency per million hours, Kemira + contractors		2.7	2.2
8 DECENT WORK AND ECONOMIC GROWTH	**PEOPLE** Reach top 10% cross industry norm for Diversity & Inclusion by 2025		Slightly below top 25%	–
12 RESPONSIBLE CONSUMPTION AND PRODUCTION	**CIRCULARITY** Reduce waste intensity** by 15% by 2030 from a 2019 baseline of 4.6 Biobased products > EUR 500 million revenue by 2030 **metric tonnes of routine disposed waste per thousand metric tonnes of production (t/1,000 t)	t/1000t	4.3	4.2
6 CLEAN WATER AND SANITATION	**WATER** Continuously improve freshwater use intensity	m3/t	1.3	1.5
13 CLIMATE ACTION	**CLIMATE** Scopes 1 & 2*** emissions -30% by 2030 compared to 2018 baseline of 930 tCO2e	tCO2e	856	886

***Scope 1: Direct greenhouse gas emissions from Kemira's manufacturing sites, e.g. generation of energy and emissions from manufacturing processes

Scope 2: Indirect greenhouse gas emissions from external generation and purchase of electricity, heating, cooling and steam

SEGMENTS

PULP & PAPER

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

EUR million	2021	2020
Revenue	1,559.6	1,457.6
Operative EBITDA	244.7	260.2
Operative EBITDA, %	15.7	17.9
EBITDA	198.3	240.2
EBITDA, %	12.7	16.5
Operative EBIT	124.3	138.0
Operative EBIT, %	8.0	9.5
EBIT	77.7	118.0
EBIT, %	5.0	8.1
Capital employed*	1,226.9	1,246.7
Operative ROCE*, %	10.1	11.1
ROCE*, %	6.3	9.5
Capital expenditure excl. M&A	88.5	91.9
Capital expenditure incl. M&A	89.5	94.6
Cash flow after investing activities	94.6	162.2

*12-month rolling average

The segment's **revenue** increased by 7%. Revenue in local currencies (excluding divestments and acquisitions) increased by 8% driven by higher sales volumes and sales prices. Sales volumes increased across product groups, particularly in bleaching, process and functional and sizing chemicals.

In **EMEA**, revenue increased by 7% to EUR 816.8 million (762.3) due to higher sales volumes across product groups. Also sales prices increased.

In **the Americas**, revenue increased by 6% to EUR 481.6 million (455.3). Revenue in local currencies, excluding acquisitions and divestments, increased by 10% due to higher sales volumes, particularly in bleaching and process and functional chemicals. Also sales prices increased.

In **APAC**, revenue increased by 9% to EUR 261.2 million (240.0). Revenue in local currencies, excluding acquisitions and divestments, increased by 9% mainly due to higher sales prices. Also sales volumes increased.

Operative EBITDA decreased by 6%. Significantly higher variable costs following increased raw material and energy prices were partly offset by higher sales prices and sales volumes. The operative EBITDA margin declined due to higher raw material and energy prices. **EBITDA** decreased by 17%. The difference between it and operative EBITDA is explained by items affecting comparability, which mainly consisted of a provision caused by the expected underutilization of a single-asset energy company in Pori, Finland majority owned by Kemira via Pohjolan Voima, a damage claim settlement with CDC, a provision related to a site closure and organizational restructuring costs.

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, reduced water and energy use, as well as efficiency of oil sands tailings treatment.

EUR million	2021	2020
Revenue	1,114.8	969.5
Operative EBITDA	180.8	174.8
Operative EBITDA, %	16.2	18.0
EBITDA	174.9	173.0
EBITDA, %	15.7	17.8
Operative EBIT	101.2	99.7
Operative EBIT, %	9.1	10.3
EBIT	92.4	97.8
EBIT, %	8.3	10.1
Capital employed*	767.6	717.5
Operative ROCE*, %	13.2	13.9
ROCE*, %	12.0	13.6
Capital expenditure excl. M&A	80.3	103.6
Capital expenditure incl. M&A	80.3	103.6
Cash flow after investing activities	50.9	69.8

*12-month rolling average

The segment's **revenue** increased by 15%. Revenue in local currencies, excluding acquisitions and divestments, increased by 16%. The increase was driven mainly by higher sales volumes, particularly in the Oil & Gas business. Also sales prices increased. Currencies had a negative impact.

In the water treatment business, revenue increased by 7% particularly due to higher sales volumes sales volumes and sales prices. Also sales prices increased. Revenue in the Oil & Gas business increased by 55% to EUR 245.9 million (158.9) mainly due to higher sales volumes in shale and oil sands tailings. Also sales prices increased.

In **EMEA**, revenue increased by 3% to EUR 558.9 million (543.9). Sales volumes increased in water treatment. Also sales prices increased. Currencies had a positive impact.

In **the Americas**, revenue increased by 30% to EUR 528.6 million (407.1). Revenue in local currencies, excluding acquisitions and divestments, increased by 33%. Sales volumes increased in the Oil & Gas business, particularly in shale. Sales volumes in water treatment also increased. Sales prices increased both in the Oil & Gas business and water treatment.

In **APAC**, revenue increased by 47% to EUR 27.3 million (18.5) due to higher sales volumes in water treatment.

Operative EBITDA increased by 3% as higher sales prices and sales volumes more than compensated for higher variable costs. The operative EBITDA margin declined due to higher raw material prices. **EBITDA** increased by 1% and the difference from operative EBITDA is explained by items affecting comparability, which mainly consisted of organizational restructuring costs and a provision related to a site closure.

PARENT COMPANY'S FINANCIAL PERFORMANCE

Kemira Oyj's revenue increased to EUR 1,572.5 million (1,459.9) in 2021. EBITDA was EUR 70.8 million (126.5). The parent company's financing income and expenses were EUR 26.5 million (-205.9). Financing income and expenses included no impairment losses on non-current assets (-238.6). The net result for the financial year totaled EUR -2.9 million (-199.6). The total capital expenditure was EUR 42.9 million (18.8), excluding investments in subsidiaries.

Kemira Oyj had 502 (2020: 501, 2019: 507) employees on average during 2021.

KEMIRA OYJ'S SHARES AND SHAREHOLDERS

On December 31, 2021, 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 2021, Kemira Oyj had 49,484 registered shareholders (44,311 on December 31, 2020). Non-Finnish shareholders held 28.4% of the shares (28.6% on December 31, 2020), including nominee-registered holdings. Households owned 19.8% of the shares (18.6% on December 31, 2020). Kemira held 2,215,073 treasury shares (2,418,440 on December 31, 2020), representing 1.4% (1.6% on December 31, 2020) of all company shares.

Kemira Oyj's share price increased by 3% from the beginning of the year and closed at EUR 13.33 on the Nasdaq Helsinki at the end of December 2021 (12.94 on December 31, 2020). The shares registered a high of EUR 14.66 and a low of EUR 12.64 in January–December 2021, and the average share price was EUR 13.67. The company's market capitalization, excluding treasury shares, was EUR 2,041 million at the end of December 2021 (1,979 December 31, 2020).

In January–December 2021, Kemira Oyj's share trading turnover on the Nasdaq Helsinki was EUR 787 million (EUR 857 million in January–December 2020). The average daily trading volume was 228,087 shares (301,131 in January–December 2020). The total volume of Kemira Oyj's share trading in January–December 2021 was 72 million shares (93 million shares in January–December 2020), 20% (19% in January–December 2020) of which was executed on other trading platforms (e.g. Turquoise, CBOE DXE). Source: Nasdaq and Kemira.com.

MANAGEMENT SHAREHOLDING

The members of the Board of Directors as well as the President and CEO and his Deputy held 518,636 (507,488) Kemira Oyj shares on December 31, 2021 or 0.33% (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 140,800 shares (125,840) on December 31, 2021. Members of the Management Board, excluding the President and CEO and his Deputy, held a total of 223,111 shares on December 31, 2021 (197,471), representing 0.14% (0.13%) 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***.

	Amount of shares		% of shares	
Owners	**Dec 31, 2021**	**Dec 31, 2020**	**Dec 31, 2021**	**Dec 31, 2020**
Board of Directors	289,471	298,519	0.19 %	0.19 %
President and CEO	140,800	125,840	0.09 %	0.08 %
Deputy CEO	88,365	83,129	0.06 %	0.05 %
Members of the Management Board (excl. CEO and Deputy CEO)	223,111	197,471	0.14 %	0.13 %

OWNERSHIP DECEMBER 31, 2021

	Shares and votes	
Owners	**2021**	**2020**
Corporations	25.4%	25.5%
Financial and insurance corporations	4.6%	5.2%
General government	18.7%	19.0%
Households	19.8%	18.6%
Non-profit institutions	3.0%	3.1%
Non-Finnish shareholders incl. nominee registered	28.4%	28.6%

SHAREHOLDING BY NUMBER OF SHARES HELD DECEMBER 31, 2021

Number of shares	Number of shareholders	% of shareholders	Shares total	% of shares and votes
1 - 100	17,436	35.2%	887,159	0.6%
101 - 500	18,896	38.2%	5,070,894	3.3%
501 - 1,000	6,349	12.8%	4,879,535	3.1%
1,001 - 5,000	5,728	11.6%	11,992,241	7.7%
5,001 - 10,000	624	1.3%	4,476,786	2.9%
10,001 - 50,000	355	0.7%	6,927,666	4.5%
50,001 - 100,000	44	0.1%	3,215,048	2.1%
100,001 - 500,000	36	0.1%	7,260,752	4.7%
500,001 - 1,000,000	6	0.0%	4,583,838	3.0%
1,000,001 -	10	0.0%	106,048,638	68.3%
Total	49,484	100.0%	155,342,557	100.0%

LARGEST SHAREHOLDERS DECEMBER 31, 2021

	Shareholder	Number of shares	% of shares and votes
1	Oras Invest Ltd	32,000,000	20.6%
2	Solidium Oy	15,782,765	10.2%
3	Varma Mutual Pension Insurance Company	4,652,678	3.0%
4	Ilmarinen Mutual Pension Insurance Company	4,050,000	2.6%
5	Nordea Funds	3,602,778	2.3%
6	Elo Mutual Pension Insurance Company	1,787,948	1.2%
7	Veritas Pension Insurance Company Ltd.	1,434,764	0.9%
8	Etola Group Oy	1,000,000	0.6%
9	Laakkonen Mikko Kalervo	750,000	0.5%
10	Nordea Life Assurance Finland Ltd.	741,211	0.5%
11	The State Pension Funds	560,000	0.4%
12	Paasikivi Pekka Johannes	462,000	0.3%
13	OP-Henkivakuutus Ltd.	459,209	0.3%
14	Oppiva Invest Oy	398,400	0.3%
15	Valio Pension Fund	379,450	0.2%
	Kemira Oyj	2,215,073	1.4%
	Nominee registered and foreign shareholders	44,126,192	28.4%
	Others, Total	40,940,089	26.4%
	Total	**155,342,557**	**100.0%**

SHARE KEY FIGURES

	2021	2020	2019	2018	2017
PER SHARE FIGURES					
Earnings per share (EPS), basic, EUR 1)	0.71	0.86	0.72	0.58	0.52
Earnings per share (EPS), diluted, EUR 1)	0.70	0.86	0.72	0.58	0.52
Net cash generated from operating activities per share, EUR 1)	1.44	2.45	2.53	1.38	1.35
Dividend per share, EUR 1) 2)	0.58	0.58	0.56	0.53	0.53
Dividend payout ratio, % 1) 2)	82.2	67.5	77.6	90.7	102.7
Dividend yield, % 1) 2)	4.4	4.5	4.2	5.4	4.6
Equity per share, EUR 1)	8.68	7.80	7.98	7.80	7.61
Price per earnings per share (P/E ratio) 1)	18.88	15.07	18.37	16.85	22.29
Price per equity per share 1)	1.54	1.66	1.66	1.26	1.51
Price per cash flow from operations per share 1)	9.27	5.28	5.24	7.14	8.54
Dividend paid, EUR million 2)	88.8	88.7	85.5	80.8	80.7
SHARE PRICE AND TRADING					
Share price, high, EUR	14.66	14.24	14.99	12.03	12.44
Share price, low, EUR	12.64	8.02	9.77	9.34	10.33
Share price, average, EUR	13.67	11.55	12.56	11.00	11.47
Share price on Dec 31, EUR	13.33	12.94	13.26	9.85	11.50
Number of shares traded (1,000) 3)	57,478	75,885	53,048	43,837	54,169
% on number of shares	38	50	35	29	36
Market capitalization on Dec 31, EUR million 1)	2,041	1,979	2,024	1,502	1,752
NUMBER OF SHARES AND SHARE CAPITAL					
Average number of shares, basic (1,000) 1)	153,092	152,879	152,630	152,484	152,359
Average number of shares, diluted (1,000) 1)	153,785	153,373	153,071	152,768	152,594
Number of shares on Dec 31, basic (1,000) 1)	153,127	152,924	152,649	152,510	152,354
Number of shares on Dec 31, diluted (1,000) 1)	154,068	153,744	153,385	152,927	152,512
Increase (+) / decrease (-) in number of shares outstanding (1,000)	203	275	139	156	-14
Share capital, EUR million	221.8	221.8	221.8	221.8	221.8

1) Number of shares outstanding, excluding the number of treasury shares.
2) The dividend for 2021 is the Board of Directors' proposal to the Annual General Meeting.
3) Shares traded on Nasdaq Helsinki only

Definitions of the key figures is disclosed in the section on the Definitions of key figures.

AGM DECISIONS

ANNUAL GENERAL MEETING

Kemira Oyj's Annual General Meeting, held on March 24, 2021, approved the Board of Directors' proposal for a dividend of EUR 0.58 per share for the financial year 2020. The dividend was paid in two installments. The first installment of EUR 0.29 per share was paid on April 8, 2021. The Annual General Meeting authorized the Board of Directors to decide the record date and the payment date for the second installment of the dividend.

The Board of Directors decided on the record date and the payment date for the second installment of the dividend of EUR 0.29 at its meeting on October 25, 2021. The payment date of the second installment of the dividend was November 4, 2021. Kemira announced the resolution of the Board of Directors with a separate stock exchange release and confirmed the record and payment dates.

The AGM 2021 authorized the Board of Directors to decide upon the repurchase of a maximum of 5,600,000 company's own shares. This corresponds to approximately 3.6% of all shares and votes in the company. The 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 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 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 would be 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 those of 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 on other terms related to the share repurchase. The Share repurchase authorization is valid until the end of the next Annual General Meeting.

The Annual General Meeting authorized the Board of Directors to decide to issue a maximum of 15,600,000 new shares (corresponding to approximately 10% of all company shares and votes) and/or transfer a maximum of 7,800,000 company’s own shares (corresponding to approximately 5% of all company shares and votes) held by the company (“Share issue”). 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 disapplying 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 it 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 plans. 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 shall decide upon other terms related to the share issues. The Share issue authorization is valid until May 31, 2022.

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.

The Annual General Meeting decided that the four shareholders holding the most voting rights on May 31 (instead of August 31) prior to the following Annual General Meeting according to the company’s shareholders’ register maintained by Euroclear Finland Ltd shall each have the right to become a member or to appoint a member, as the case may be, to the Nomination Board.

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 24, 2021, the Annual General Meeting elected seven members to the Board of Directors. The Annual General Meeting re-elected Wolfgang Büchele, Shirley Cunningham, Werner Fuhrmann, Timo Lappalainen and Jari Paasikivi as members of the Board of Directors, and elected Matti Kähkönen and Kristian Pullola as new members to the Board of Directors. Jari Paasikivi was re-elected as the Board's Chairman and Matti Kähkönen was elected as the Vice Chairman. In 2021, Kemira’s Board of Directors met 10 times, with a 100% 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 Matti Kähkönen and Timo Lappalainen as members. In 2021, the Personnel and Remuneration Committee met five times, with a 100% attendance rate. The Audit Committee is chaired by Timo Lappalainen and has Jari Paasikivi and Kristian Pullola as members. In 2021, the Audit Committee met five times, with a 100% attendance rate.

STRUCTURE

There have been no significant acquisitions or divestments during the year that would have impacted the company structure.

SHORT TERM RISKS AND UNCERTAINTIES

PRICE AND AVAILABILITY OF RAW MATERIALS AND COMMODITIES

Profitable growth is a crucial part of Kemira's strategy. A significant and sudden increase in the cost of raw materials, commodities, 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, considerable and/or rapid changes in oil and energy 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 2021, raw material prices increased significantly following the rapid economic rebound from the COVID-19 pandemic, and due to supply chain disruptions seen during the year. Also energy prices increased substantially during the year, particularly during the fourth quarter of 2021.

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 backwards integration into the supply chain. In 2021, Kemira had some raw material availability issues, particularly during the first half of the year. Supply chain issues, which were caused by the rapid economic rebound and unexpected weather conditions, impacted Kemira's suppliers and the availability of certain raw materials. The situation improved towards the end of the year. Continued supply chain disruptions are possible also in 2022 depending on the development of the COVID-19 pandemic.

SUPPLIERS

The continuity of Kemira's business operations is dependent on accurate and good-quality supply of products and services. Kemira currently has 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. The COVID-19 pandemic did not cause significant impacts on Kemira's manufacturing operations in 2021. However, disruptions in the supply chains during 2021 had an impact on the availability of certain raw materials in Kemira purchases. Kemira was able to handle the situation and the impact on Kemira's revenue was not material.

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 to 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, also including (but not limited to) unauthorized IT system access by a 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 an 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 the financial impacts of hazard risks.

CHANGES IN CUSTOMER DEMAND

A significant unforeseen decline in the use of certain chemicals (e.g. chemicals for packaging and board production) or in the demand for customers' products and operations could have a negative impact on Kemira's business. A significant decline in certain raw material and utility prices (e.g. oil, gas, and metals) may shift customers' activities towards areas where fewer 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 provide partial protection against the risk of changed customer demands.

In 2020, Kemira revised its strategy with an increased focus on biobased products to respond to changes in customer demand and expectations. In 2020, Kemira also started several external partnerships in order to innovate and commercialize new biobased products. The partnership development continued throughout 2021. Profitable growth is one key aspect of Kemira's revised strategy, and biobased products are expected to play a significant role in Kemira's growth ambitions. Due to sustainability pressure, there will also be a shift in the Pulp & Paper industry, and it is expected there may be new and/or increased uses of pulp- and fiber-based materials. This is an area Kemira is continuously monitoring.

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 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 that are important to Kemira, could cause business interference or other adverse consequences. Current examples of these risks are related to trade wars. Geopolitical tensions in Eastern Europe and subsequent possible sanctions towards Russia could result in disruptions to energy availability in Europe, which could also impact Kemira. Kemira also sources some raw materials from Russia, Ukraine and Belarus, the supply of which could be disrupted should geopolitical tensions intensify and / or should sanctions be imposed towards Russia.

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. 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. 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, particularly in biobased products. In the long term, completely new types of technology may considerably change the current competitive situation. This risk is managed at both Group and segment levels through continuous monitoring of the competition. The company aims to respond to its competition through the active management of customer relationships and continuous development of its products and services to further differentiate itself from the competitors and to be competitive.

ACQUISITIONS

Acquisitions are one potential way to achieve 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. Acquisitions and/or partnerships may also be needed in order to enter totally new geographic markets or new product markets. However, the integration of acquired businesses, operations, and personnel also involves risks. If integration is unsuccessful, the 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 of 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 disruptive new technologies and products, or to effectively commercialize new products or service concepts may result in non-achievement of growth targets and may negatively impact Kemira's competitive situation.

Innovation- and R&D-related risks are managed through effective R&D portfolio management, in close collaboration between R&D and the two business segments. There is close coordination and cooperation between the 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 is aiming for more stringent project execution. Kemira maintains an 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, in chemical, environmental or transportation laws and regulations may also 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 in 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 regulations 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 its awareness of proposed and upcoming changes of those laws and regulations that 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 they become subject to stricter regulation. Kemira has also increased its 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 this is justified from the perspective of the industry or business. Currently, for example, there are 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 in the future, due to the need for water to be treated more carefully. The EU has, as part of its Green Deal initiative, launched the EU Chemicals Strategy for Sustainability (CSS). Kemira follows closely the development of the strategy and its potential implications on the chemical sector and Kemira.

TALENT MANAGEMENT

To secure competitiveness and profitable 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 competences). Kemira is continuously identifying people with high potential and key competencies for future needs. Through 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 description of Kemira’s risk management principles is available on the company’s website at ***www.kemira.com***. Financial risks are described in the Notes to the Financial Statements for the year 2021.

CLIMATE RELATED RISKS

Kemira has identified certain climate-related risks that could have an impact on Kemira’s operations or customer demand. Increased awareness of and concern about climate change and more sustainable products may for example change customer demands in favor of water treatment technologies with lower chemical consumption. Higher awareness of the impacts of climate change could lead to a more rapid transition to sustainable, fossil-free energy sources, which could lead to higher energy prices and impact the availability of energy. This could have a negative impact on Kemira as parts of Kemira’s manufacturing operations are energy-intensive. A part of Kemira’s raw materials are fossil-based. Kemira has active plans to increase the share of renewable raw materials in its portfolio and reduce the reliance on oil and gas derivatives. Also extreme weather patterns related to climate change, such as hurricanes and floods, could impact Kemira’s supply chain and suppliers as well as Kemira’s own manufacturing sites. Several climate related risks are included in Kemira’s enterprise risk management portfolio and active monitoring and mitigation planning is being done.

IMPACT OF COVID-19 PANDEMIC AND RELATED ECONOMIC SLOWDOWN ON KEMIRA

The COVID-19 pandemic had a limited direct impact on Kemira’s operations and on Kemira's customer demand in 2021. Kemira's end-market demand grew strongly in both segments during the year compared to 2020, which was impacted by the COVID-19 pandemic and economic shutdowns. In Pulp & Paper, demand for chemicals grew in pulp, board and tissue and printing and writing in 2021. In Industry & Water, demand in both municipal water and industrial water treatment grew. In the Oil & Gas business, shale market activity continued to grow throughout 2021. Also demand in oil sands tailings treatment grew.

The global economy rebounded strongly from the COVID-19-related economic shutdowns during 2021. This resulted in significantly higher raw material and energy costs as well as significant supply chain and logistics disruptions and cost pressure, which, together with some shortages in raw material availability, impacted Kemira during 2021. However, Kemira's manufacturing facilities operated without significant disruptions despite supply chain bottlenecks. Higher raw material and energy costs and supply chain bottlenecks may impact Kemira negatively also in the coming quarters in 2022.

The omicron variant of COVID-19 and other, still unknown COVID-19 variants could deteriorate the pandemic situation further and result in additional restrictions on economic activity, which in turn could lead to lower demand also in Kemira's end markets. In addition, a rapid spread of COVID-19 could also lead to significant number of infections in Kemira's personnel, which could have an impact on Kemira's operations.

Kemira has regional crisis management teams to monitor the COVID-19 situation, as the development of the COVID-19 pandemic varies by region. The aim of the crisis management teams is to mitigate the impact on Kemira in order to ensure our own and our customers' business continuity. Regional crisis management teams continued to convene regularly throughout 2021. Business travel remains limited, and Kemira has taken several steps to ensure employee safety at its locations. To mitigate the impact on its supply chain, Kemira reviews alternative suppliers on a continuous basis to ensure smooth operations in all circumstances.

The majority of Kemira's employees who are able to do so have worked remotely since March 2020. Kemira has supported leaders and employees in the adoption of remote working during the COVID-19 pandemic and remote work has been smooth. Kemira has strict safety measures in place for on-site working. Kemira will start a gradual and safe return to offices and towards a hybrid-working model when the COVID-19 situation allows, while also complying with possible social distancing measures and local government regulations.

Throughout 2021, Kemira assessed the impact of the uncertainty caused by the COVID-19 pandemic on its financial position and considered the values of assets and liabilities that contain significant accounting estimates that require judgment or that may have been particularly affected by the COVID-19 pandemic. Based on the analysis, no indications of impairments in asset values were identified during the period e.g. risk of goodwill impairment or credit loss of trade receivables. However, current situation in energy market has been reflected into energy prices used in the valuation of Pohjolan Voima Group shares, increasing the share values by EUR 46.7 million from the year end 2020.

At the end of December 2021 Kemira had ample liquidity and a EUR 400 million undrawn committed credit facility maturing in 2026. Kemira issued a EUR 200 million, 7-year-bond in March 2021 and has no imminent financing needs.

For Kemira's 2022 outlook, including assumptions behind the outlook, please refer to the section "Outlook" on page 22.

DIVIDEND AND DIVIDEND POLICY

On December 31, 2021, Kemira Oyj's distributable funds totaled EUR 475,407,339, of which net profit for the period was EUR -2,851,325. 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 24, 2022 that a dividend of EUR 0.58 per share, totaling EUR 89 million, be paid on the basis of the adopted balance sheet for the financial year that ended on December 31, 2021. The dividend will be paid in two installments. The first installment, of EUR 0.29 per share, will be paid to shareholders who are registered in the company's shareholder register maintained by Euroclear Finland Oy on the record date for the dividend payment: March 28, 2022. The Board of Directors proposes that the first installment of the dividend be paid out on April 7, 2022.The second installment, of EUR 0.29 per share, will be paid in November 2022. The second installment will be paid to shareholders who are 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 its meeting in October 2022. The record date is planned to be October 27, 2022, and the dividend payment date November 3, 2022 at the earliest.

Kemira's dividend policy is to pay a competitive dividend that increases over time.

SETTLEMENT WITH CDC

On July 8, 2021, Kemira announced that Kemira Chemicals Oy, a fully owned subsidiary of Kemira Oyj had reached a settlement with CDC Project 13 SA and CDC Holding SA (together "CDC") in the damage claim litigation in Amsterdam, the Netherlands.

The settlement concerned claims assigned to CDC based on which CDC claimed compensation for alleged damages relating to the alleged old infringement of competition law in the sodium chlorate business during 1994-2000 by Finnish Chemicals Oy. Kemira Oyj acquired Finnish Chemicals Oy (now Kemira Chemicals Oy) in 2005.

Kemira Chemicals Oy agreed to pay compensation and costs to CDC in the amount of EUR 22.75 million. Kemira recorded a provision of EUR 11.5 million in Q4 2019 related to the damage claim. The remaining EUR 11.25 million was recognized as a cost (item affecting comparability) in Q2 2021. The compensation and costs were paid during Q3 2021.

More information on the CDC case can be found in Kemira's Financial Statements for 2020.

EVENTS AFTER THE REVIEW PERIOD

PROPOSALS OF THE NOMINATION BOARD TO THE ANNUAL GENERAL MEETING 2022

January 13, 2022 Kemira announced the proposals of the Nomination Board to the Annual General Meeting 2022

The Nomination Board proposes to the Annual General Meeting of Kemira Oyj that eight members (previously seven) be elected to the Board of Directors and that the present members Wolfgang Büchele, Shirley Cunningham, Werner Fuhrmann, Timo Lappalainen, Matti Kähkönen and Kristian Pullola be re-elected as members of the Board of Directors. The Nomination Board proposes that Annika Paasikivi and Tina Sejersgård Fanø be elected as new members of the Board of Directors. In addition, the Nomination Board proposes that Matti Kähkönen be elected as the Chairman of the Board of Directors and Annika Paasikivi be elected as the Vice Chairman.

All the nominees have given their consent to the position and are independent of the company and the company's significant shareholders except for Annika Paasikivi, who is not independent of significant shareholders. Annika Paasikivi is the President and CEO of Oras Invest Oy and Oras Invest Oy owns over 10% of Kemira Oyj's shares.

Current Chairman of the Board, Jari Paasikivi, has informed that he will no longer be available for re-election the next term of the Board of Directors. Jari Paasikivi has served ten years in the Board of Directors of Kemira Oyj including eight years as the Chairman. The Nomination Board wishes to thank Jari Paasikivi for his long service and significant contribution to Kemira Oyj.

Ms. Annika Paasikivi, M.Sc. Global Politics, University of Southampton and BA, International Business, EBS London, b. 1975 is President and CEO of Oras Invest Oy, Chairman of the Board of Directors of Uponor Oyj, Deputy Chairman of the Board of Directors of Oras Ltd and Member of the Board of Varova Oy. Annika Paasikivi is a Finnish citizen.

Ms. Tina Sejersgård Fanø, M.Sc. in Engineering, Biochemistry, Technical University of Denmark and BA, Philosophy and Educational Science, University of Copenhagen, b. 1969, is Executive Vice President, Agriculture & Industrial Biosolutions of Novozymes A/S and Chairman of the Board of Innovationsfonden and Member of the Board of DLF Seeds & Science A/S. Tina Sejersgård Fanø is a Danish citizen.

With regard to the selection procedure for the members of the Board of Directors, the Nomination Board recommends that shareholders take a position on the proposal as a whole at the Annual General Meeting. This recommendation is based on the fact that Kemira's shareholders' Nomination Board is separate from the Board of Directors, in line with a good Nordic governance model. The Nomination Board, in addition to ensuring that individual nominees for membership of the Board of Directors possess the required competences, is responsible for making sure that the proposed Board of Directors as a whole also has the best possible expertise and experience for the company and that the diversity principles of the company will be met and that the composition of the Board of Directors meets other requirements of the Finnish Corporate Governance Code for listed companies.

The Nomination Board proposes that the remuneration paid to the members of the Board of Directors will be increased as follows (current remuneration in parentheses): for the Chairman EUR 110,000 per year (EUR 92,000), for the Vice Chairman and the Chairman of the Audit Committee EUR 65,000 per year (EUR 55,000) and for the other members EUR 50,000 per year (EUR 44,000). The annual fees were last increased in 2019.

The Nomination Board proposes that a fee payable for each meeting of the Board of Directors and the Board Committees will be paid based on the method and place of the meeting (previously based on the participant's country of residence) as follows: participating remotely or in the member's country of residence EUR 600, for the meeting on the same continent EUR 1,200 and for the meeting to be held in a different continent than the member's country of the residence EUR 2,400. Travel expenses are proposed to 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 with 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, 2022. The meeting fees are proposed to be paid in cash.

The Nomination Board has consisted of the following representatives: Ville Kivelä, Chief Investment Officer of Oras Invest Oy as the Chairman of the Nomination Board; Pauli Anttila, Investment Director, Solidium Oy; Reima Rytsölä, Deputy CEO, Investments, Varma Mutual Pension Insurance Company and Annika Ekman, Head of Direct Equity Investments, 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.

OUTLOOK FOR 2022

Revenue
Kemira's revenue in local currencies, excluding acquisitions and divestments, is expected to increase from 2021 (EUR 2,674.4 million).

Operative EBITDA
Kemira's operative EBITDA is expected to be within a +/- 5% range of the operative EBITDA in 2021 (EUR 425.5 million).

ASSUMPTIONS BEHIND OUTLOOK

There continues to be uncertainty related to COVID-19 and the inflationary environment. However, Kemira’s end-market demand in both segments is expected to grow following forecasted global economic growth. The outlook assumes the COVID-19 pandemic situation to remain under control and not having a significant impact on Kemira’s end-market demand. The outlook also assumes no major disruptions to Kemira’s manufacturing operations or further significant supply chain disruptions. Strong inflationary pressures are expected to continue, particularly in H1 2022.

FINANCIAL TARGETS

Kemira aims for above-market revenue growth with an operative EBITDA margin of 15-18%. The target for gearing is below 75%.

Helsinki, February 10, 2022

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.

Consolidated Income Statement

		Year ended 31 December	
EUR million	**Note**	**2021**	**2020**
Revenue	2.1.	2,674.4	2,427.2
Other operating income	2.2.	5.9	4.0
Operating expenses	2.2.	-2,306.7	-2,017.9
Share of the results of associates	6.2.	-0.5	0.0
EBITDA		373.2	413.2
Depreciation, amortization and impairments	2.4.	-203.1	-197.4
Operating profit (EBIT)		170.1	215.9
Finance income	2.5.	6.8	1.5
Finance expenses	2.5.	-34.1	-34.4
Exchange differences	2.5.	0.6	-1.9
Finance costs, net	2.5.	-26.7	-34.9
Profit before tax		143.3	181.0
Income taxes	2.6.	-28.2	-43.0
Net profit for the period		115.2	138.0
Net profit attributable to			
Equity owners of the parent company		108.1	131.3
Non-controlling interests	6.2.	7.1	6.7
Net profit for the period		115.2	138.0
Earnings per share for net profit attributable to the equity owners of the parent company, EUR			
Basic	2.7.	0.71	0.86
Diluted	2.7.	0.70	0.86

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

Consolidated Comprehensive Income

		Year ended 31 December	
EUR million	**Note**	**2021**	**2020**
Net profit for the period		115.2	138.0
Other comprehensive income			
Items that may be reclassified subsequently to profit or loss			
Exchange differences in translating foreign operations		32.2	-47.1
Cash flow hedges		19.3	-0.8
Items that will not be reclassified subsequently to profit or loss			
Other shares		40.2	-26.3
Remeasurements of defined benefit plans		21.5	-1.2
Other comprehensive income for the period, net of tax	2.8.	113.3	-75.3
Total comprehensive income for the period		228.4	62.6
Total comprehensive income attributable to			
Equity owners of the parent company		221.2	56.7
Non-controlling interests	6.2.	7.2	5.9
Total comprehensive income for the period		228.4	62.6

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**	**2021**	**2020**
ASSETS			
NON-CURRENT ASSETS			
Goodwill	3.1.	514.0	504.1
Other intangible assets	3.2.	66.7	78.0
Property, plant and equipment	3.3.	1,063.0	1,011.4
Right-of-use assets	3.4.	135.8	121.0
Investments in associates	6.2.	4.8	5.3
Other shares	3.5.	260.0	212.3
Deferred tax assets	4.4.	30.5	27.5
Other investments	5.4.	7.3	7.3
Receivables of defined benefit plans	4.5.	73.2	51.1
Total non-current assets		2,155.4	2,018.0
CURRENT ASSETS			
Inventories	4.1.	352.1	242.3
Interest-bearing receivables	5.4.	0.3	0.4
Trade receivables and other receivables	4.2.	475.2	362.0
Current income tax assets		13.9	13.4
Cash and cash equivalents	5.4.	142.4	159.5
Total current assets		983.9	777.7
Total assets		3,139.3	2,795.7

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

		As at 31 December	
EUR million	**Note**	**2021**	**2020**
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		140.9	81.1
Unrestricted equity reserve		196.3	196.3
Translation differences		-53.7	-85.8
Treasury shares		-14.9	-16.3
Retained earnings		580.5	537.1
Total equity attributable to equity owners of the parent company	5.2.	1,328.8	1,192.1
Non-controlling interests	6.2.	13.9	13.2
Total equity		1,342.7	1,205.3
NON-CURRENT LIABILITIES			
Interest-bearing liabilities	5.3.	776.9	724.1
Other liabilities	5.4.	9.4	8.1
Deferred tax liabilities	4.4.	77.1	52.0
Liabilities of defined benefit plans	4.5.	94.1	96.3
Provisions	4.6.	48.0	35.6
Total non-current liabilities		1,005.5	916.1
CURRENT LIABILITIES			
Interest-bearing liabilities	5.3.	215.3	194.7
Trade payables and other liabilities	4.3.	538.3	422.2
Current income tax liabilities		14.3	25.7
Provisions	4.6.	23.1	31.7
Total current liabilities		791.0	674.3
Total liabilities		1,796.5	1,590.4
Total equity and liabilities		3,139.3	2,795.7

Consolidated Statement of Cash Flow

EUR million	Note	2021	2020
CASH FLOW FROM OPERATING ACTIVITIES			
Net profit for the period		115.2	138.0
Adjustments for			
Depreciation, amortization and impairments	2.4.	203.1	197.4
Income taxes	2.6.	28.2	43.0
Finance costs, net	2.5.	26.7	34.9
Share of the results of associates	6.2.	0.5	0.0
Other non-cash items		14.9	23.0
Cash flow before change in net working capital		388.5	436.2
Change in net working capital			
Increase (-) / decrease (+) in inventories		-100.5	2.2
Increase (-) / decrease (+) in trade and other receivables		-77.8	3.4
Increase (+) / decrease (-) in trade payables and other liabilities		98.1	-8.5
Change in net working capital		-80.2	-2.9
Cash flow from operations before financing items and taxes		308.3	433.3
Interests paid		-31.9	-28.8
Interests received		0.9	1.1
Other finance items, net		-13.2	5.6
Dividends received		0.0	0.0
Income taxes paid		-44.0	-36.5
Net cash generated from operating activities		220.2	374.7

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

EUR million	Note	2021	2020
CASH FLOW FROM INVESTING ACTIVITIES			
Capital expenditure in associated company		0.0	-2.6
Capital expenditure in other shares		-1.0	0.0
Capital expenditure in property, plant and equipment and intangible assets		-168.8	-195.6
Decrease (+) / increase (-) in loan receivables		0.2	-5.6
Capital repayments from other shares		3.5	0.0
Proceeds from sale of property, plant and equipment, and intangible assets		3.2	2.5
Net cash used in investing activities		-162.9	-201.4
CASH FLOW FROM FINANCING ACTIVITIES			
Proceeds from non-current interest-bearing liabilities (+)	5.1.	200.0	0.0
Repayments of non-current interest-bearing liabilities (-)	5.1.	-97.3	-55.0
Repayments of non-current non-interest-bearing liabilities (-)		0.0	-10.7
Short-term financing, net increase (+) / decrease (-)	5.1.	-53.9	37.2
Repayments of lease liabilities		-33.1	-30.6
Dividends paid		-95.3	-91.8
Net cash used in financing activities		-79.5	-150.9
Net increase (+) / decrease (-) in cash and cash equivalents		-22.2	22.4
Cash and cash equivalents on Dec 31		142.4	159.5
Exchange gains (+) / losses (-) in cash and cash equivalents		5.1	-6.0
Cash and cash equivalents on Jan 1		159.5	143.1
Net increase (+) / decrease (-) in cash and cash equivalents		-22.2	22.4

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, 2021	221.8	257.9	81.1	196.3	-85.8	-16.3	537.1	1,192.1	13.2	1,205.3
Net profit for the period	—	—	—	—	—	—	108.1	108.1	7.1	115.2
Other shares	—	—	40.2	—	—	—	—	40.2	—	40.2
Exchange differences in translating foreign operations	—	—	—	—	32.1	—	—	32.1	0.1	32.2
Cash flow hedges	—	—	19.3	—	—	—	—	19.3	—	19.3
Remeasurements of defined benefit plans	—	—	—	—	—	—	21.5	21.5	—	21.5
Total other comprehensive income			59.5		32.1		21.5	113.2	0.1	113.3
Total comprehensive income	—	—	59.5	—	32.1	—	129.6	221.2	7.2	228.4
Transactions with owners										
Dividends paid	—	—	—	—	—	—	-88.8	-88.8	-6.5	-95.3
Treasury shares issued to the target group of a share-based incentive plan	—	—	—	—	—	1.3	—	1.3	—	1.3
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	—	—	—	—	—	—	3.3	3.3	—	3.3
Transfers in equity	—	—	0.3	—	—	—	-0.3	0.0	—	0.0
Other items	—	—	—	—	—	—	-0.4	-0.4	—	-0.4
Total transactions with owners	—	—	0.3	—	—	1.4	-86.2	-84.5	-6.5	-91.0
Equity on December 31, 2021	221.8	257.9	140.9	196.3	-53.7	-14.9	580.5	1,328.8	13.9	1,342.7

	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, 2020	221.8	257.9	108.5	196.3	-39.5	-18.1	490.9	1,217.7	13.3	1,231.0
Net profit for the period	—	—	—	—	—	—	131.3	131.3	6.7	138.0
Other shares	—	—	-26.3	—	—	—	—	-26.3	—	-26.3
Exchange differences in translating foreign operations	—	—	—	—	-46.3	—	—	-46.3	-0.8	-47.1
Cash flow hedges	—	—	-0.8	—	—	—	—	-0.8	—	-0.8
Remeasurements of defined benefit plans	—	—	—	—	—	—	-1.2	-1.2	—	-1.2
Total other comprehensive income			-27.1		-46.3		-1.2	-74.5	-0.8	-75.3
Total comprehensive income	—	—	-27.1	—	-46.3	—	130.1	56.7	5.9	62.6
Transactions with owners										
Dividends paid	—	—	—	—	—	—	-85.6	-85.6	-6.1	-91.8
Treasury shares issued to the target group of a share-based incentive plan	—	—	—	—	—	1.8	—	1.8	—	1.8
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	—	—	—	—	—	—	1.6	1.6	—	1.6
Transfers in equity	—	—	-0.2	—	—	—	0.2	0.0	—	0.0
Total transactions with owners	—	—	-0.2	—	—	1.8	-83.8	-82.2	-6.1	-88.4
Equity on December 31, 2020	221.8	257.9	81.1	196.3	-85.8	-16.3	537.1	1,192.1	13.2	1,205.3

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

Notes to the Consolidated Financial Statements

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

GROUP PROFILE

Kemira Oyj is a Finnish public limited liability company, domiciled in Helsinki, and its registered address is Energiakatu 4, FI-00180 Helsinki, Finland. Kemira Oyj's shares are listed on Nasdaq Helsinki Oy. The parent company Kemira Oyj and its subsidiaries together form the Kemira Group. A list of subsidiaries is disclosed in Note 6.2.

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 Board of Directors of Kemira Oyj has approved the Financial Statements for publication at its meeting on February 10, 2022. Under the Finnish Limited Liability Companies Act, the General Meeting of Shareholders is entitled to decide on the adoption of the financial statements. A copy of the Consolidated Financial Statements is available at ***www.kemira.com*** or at Energiakatu 4, FI-00180 Helsinki, Finland.

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, 2021. 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 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 EFFECT IN 2021

The group has applied the following standards and amendments for the first time to its annual reporting period commencing January 1, 2021:

- Amendment to IFRS 16 Leases Covid-19 Related Rent Concessions
- Amendments to IFRS 9, IAS 39, IFRS 7, IFRS 4 and IFRS 16 Interest Rate Benchmark Reform – Phase 2

In accordance with the amendment to IFRS 16 Leases COVID-19 Related Rent Concessions, lease benefits received by a lessee that are a direct result of COVID-19 restrictive actions need not be treated as change in lease contract. During the financial years 2020–2021, the Group has not received any significant such exemptions from its lessors.

The amendments listed above also did not have any impact on the amounts recognized in financial period January 1, – December 31, 2021 and are not expected to significantly affect the next financial period January 1, – December 31, 2022.

NEW, AMENDED IFRS STANDARDS AND IFRIC INTERPRETATIONS NOT YET ADOPTED

New IFRS standards, amendments to standards and IFRIC interpretations effective on or after January 1, 2022 are not expected to have a material impact on the Group.

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 does 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 euros, 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 lists items in the financial statements that include significant accounting estimates and includes the notes related to them. Also included are the accounting policies and the sensitivity analysis applied to the items. The 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

THE ASSESSMENT OF IMPACTS OF THE COVID-19 PANDEMIC IN THE FINANCIAL STATEMENTS

The Group has assessed the impact of the uncertainty caused by the COVID-19 pandemic on its financial position and considered the values of assets and liabilities containing significant accounting estimates that require judgment or that may have been particularly affected by the COVID-19 pandemic.

The Group has performed its annual goodwill impairment testing. The goodwill impairment testing calculation has been taken into account in, for example, the estimated effects of the COVID-19 pandemic on future cash flows. Based on these calculations, no indications of goodwill impairment were identified.

The value of Pohjolan Voima Group's shares was EUR 257 million (211). Current situation in energy market has been reflected into energy price forecasts used in the valuation of Pohjolan Voima Group shares, increasing the share values by EUR 47 million from the year end 2020.

The COVID-19 pandemic has been considered in the assessment of expected credit losses, and the model credit loss percentages have been updated to reflect the current situation. Based on the analysis, no indications of increased credit loss risk of trade receivables.

The discount rates and other assumptions have been updated annually into actuarial reports of defined benefit pension plans to reflect the economic environment. The Group's most significant pension plan is the Neliapila Pension Fund, whose net assets were EUR 73 million (52). Current situation in the financial markets has been reflected into assets of the Neliapila Pension Fund and has increased the value of the assets by EUR 14 million. Other obligations and assets in the Group's defined benefit plans have not changed materially from the year end 2020.

The Group's liquidity position has remained stable. The gearing ratio was 63% (63) and cash and cash equivalents were EUR 142 million (160). The Group's target for gearing is below 75%. In addition, the Group has a EUR 400 million revolving credit facility, which was undrawn on 31 December 2021.

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 and paper producers in innovating and constantly improving their operational efficiency. The segment develops and sells products to meet the needs of its customers, thus ensuring a leading portfolio of products and services for the 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) that 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, operative EBIT, 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 from the equivalent IFRS measures and should instead be read in conjunction with the most directly comparable IFRS measures. Definitions of the key figures is disclosed in the section Definitions of key figures.

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

INCOME STATEMENT ITEMS

2021, EUR million	Pulp & Paper	Industry & Water	Group
Revenue [1]	1,559.6	1,114.8	2,674.4
EBITDA [2]	198.3	174.9	373.2
Depreciation, amortization and impairments [2]	-120.6	-82.5	-203.1
Share of the results of associates	-0.5	0.0	-0.5
Operating profit (EBIT) [2]	77.7	92.4	170.1
Finance costs, net			-26.7
Profit before tax			143.3
Income taxes			-28.2
Net profit for the period			115.2

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

2021, EUR million	Pulp & Paper	Industry & Water	Group
Operative EBITDA	244.7	180.8	425.5
Restructuring and streamlining programs			-12.3
Transaction and integration expenses in acquisitions			-0.1
Divestment of businesses and other disposals			-28.3
Other items			-11.6
Total items affecting comparability	-46.5	-5.9	-52.4
EBITDA	198.3	174.9	373.2
Operative EBIT	124.3	101.2	225.4
Items affecting comparability in EBITDA	-46.5	-5.9	-52.4
Items affecting comparability in depreciation, amortization and impairments	-0.1	-2.9	-3.0
Operating profit (EBIT)	77.7	92.4	170.1

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

BALANCE SHEET ITEMS

2021, EUR million	Pulp & Paper	Industry & Water	Group
Segment assets	1,568.0	1,008.3	2,576.2
Reconciliation to total assets as reported in the Group balance sheet:			
Other shares			260.0
Deferred income tax assets			30.5
Other investments			7.3
Defined benefit pension receivables			73.2
Other assets			49.6
Cash and cash equivalents			142.4
Total assets			3,139.3
Segment liabilities	308.2	196.5	504.8
Reconciliation to total liabilities as reported in the Group balance sheet:			
Interest-bearing non-current financial liabilities			776.9
Interest-bearing current financial liabilities			215.3
Other liabilities			299.6
Total liabilities			1,796.5

OTHER ITEMS

2021, EUR million	Pulp & Paper	Industry & Water	Group
Capital employed by segments on Dec 31	1,259.7	811.8	2,071.5
Capital employed by segments [1]	1,227.4	767.6	1,995.0
Operative ROCE, %	10.1	13.2	11.3
Capital expenditure	89.5	80.3	169.8

1) 12-month rolling average

INCOME STATEMENT ITEMS

2020, EUR million	Pulp & Paper	Industry & Water	Group
Revenue [1]	1,457.6	969.5	2,427.2
EBITDA [2]	240.2	173.0	413.2
Depreciation, amortization and impairments	-122.2	-75.2	-197.4
Operating profit (EBIT) [2]	118.0	97.8	215.9
Finance costs, net			-34.9
Profit before tax			181.0
Income taxes			-43.0
Net profit for the period			138.0

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

2020, EUR million	Pulp & Paper	Industry & Water	Group
Operative EBITDA	260.2	174.8	435.1
Restructuring and streamlining programs			-8.4
Transaction and integration expenses in acquisitions			0.0
Divestment of businesses and other disposals			1.0
Other items			-14.4
Total items affecting comparability	-20.0	-1.8	-21.8
EBITDA	240.2	173.0	413.2
Operative EBIT	138.0	99.7	237.7
Items affecting comparability in EBITDA	-20.0	-1.8	-21.8
Items affecting comparability in depreciation, amortization and impairments	0.0	0.0	0.0
Operating profit (EBIT)	118.0	97.8	215.9

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

BALANCE SHEET ITEMS

2020, EUR million	Pulp & Paper	Industry & Water	Group
Segment assets	1,430.7	876.5	2,307.2
Reconciliation to total assets as reported in the Group balance sheet:			
Other shares			212.3
Deferred income tax assets			27.5
Other investments			7.3
Defined benefit pension receivables			51.1
Other assets			30.8
Cash and cash equivalents			159.5
Total assets			2,795.7
Segment liabilities	228.3	162.1	390.4
Reconciliation to total liabilities as reported in the Group balance sheet:			
Interest-bearing non-current financial liabilities			724.1
Interest-bearing current financial liabilities			194.7
Other liabilities			281.2
Total liabilities			1,590.4

OTHER ITEMS

2020, EUR million	Pulp & Paper	Industry & Water	Group
Capital employed by segments on Dec 31	1,202.3	714.4	1,916.7
Capital employed by segments [1)]	1,246.7	717.5	1,964.9
Operative ROCE, %	11.1	13.9	12.1
Capital expenditure	94.6	103.6	198.2

1) 12-month rolling average

INFORMATION ABOUT GEOGRAPHICAL AREAS:

REVENUE BY GEOGRAPHICAL AREA BASED ON CUSTOMER LOCATION

EUR million	2021	2020
Finland, domicile of the parent company	360.1	370.2
Other Europe, Middle East and Africa	1,014.5	935.0
Americas	1,010.0	862.4
Asia Pacific	289.8	259.5
Total	2,674.4	2,427.2

NON-CURRENT ASSETS BY GEOGRAPHICAL AREA

EUR million	2021	2020
Finland, domicile of the parent company	772.8	725.0
Other Europe, Middle East and Africa	526.7	522.4
Americas	551.3	499.5
Asia Pacific	200.8	192.5
Total	2,051.6	1,939.3

Information about major customers

The Group has several significant customers. No more than 10% of the Group's revenue was accumulated from any single external customer in 2021 or 2020.

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 performance of the segments 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 Group expects to be entitled in exchange for those goods or services. The Group 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.

The Group's revenue consists mainly of contract types that include sales of chemical products as well as services and equipment which are related to sales of these chemical products. In 2021 and 2020, services have not formed a significant part of the Group's revenue.

Revenue recognition occurs at the point when the control of the products is transferred to the customer. Generally, in the Group's sales agreements, control is transferred to the customer based on delivery terms and the revenue is recognized at a point in time.

The Group 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	2021	2020
Gains on the sale of non-current assets	3.0	1.3
Rental income	0.5	0.5
Services	2.3	2.1
Other income from operations	0.2	0.1
Total	5.9	4.0

OPERATING EXPENSES

EUR million	2021	2020
Materials and supplies	1,440.1	1,192.0
Employee benefit expenses	370.5	376.5
External services and other expenses [1) 2)]	307.9	279.6
Freights and delivery expenses	188.3	169.8
Total	2,306.7	2,017.9

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

2) In 2021, other operating expenses included research and development expenses of EUR 28.3 million (28.9) including government grants received. Government grants received for R&D were EUR 0.5 million (0.3). The extent of the grants received reduces the research and development expenses.

EMPLOYEE BENEFIT EXPENSES

EUR million	Note	2021	2020
Wages, salaries and emoluments			
Wages and salaries [3)]		279.3	296.2
Share-based payments	2.3.	8.4	7.0
Total		287.7	303.1
Indirect employee benefit expenses			
Expenses for defined benefit pension plans and employee benefits	4.5.	2.9	3.3
Pension expenses for defined contribution plans		29.2	21.4
Other employee benefit costs [4)]		50.7	48.7
Total		82.8	73.4
Total employee benefit expenses		370.5	376.5

3) Includes emoluments of Kemira Oyj's CEO and the Board of Directors.

4) In 2020, government relief for employee benefit costs of EUR 1.7 million received in China due to the COVID-19 pandemic.

The salaries and fees of Kemira Oyj's CEO and members of the Board of Directors are disclosed in Note 6.1.

NUMBER OF PERSONNEL

	2021	2020
Average number of personnel by geographical area		
Europe, Middle East and Africa	2,545	2,573
Americas	1,475	1,529
Asia Pacific	927	936
Total	4,947	5,038
Personnel in Finland, average	784	790
Personnel outside Finland, average	4,163	4,248
Total	4,947	5,038
Number of personnel on Dec 31	4,926	4,921

AUDITOR'S FEES AND SERVICES

EUR million	2021	2020
Audit fees	1.4	1.4
Tax services	0.1	0.1
Other services	0.1	0.2
Total	1.6	1.7

Ernst & Young Oy is acting as the principal auditor for Kemira Group.

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 depreciation 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

In December 2018, Kemira's Board of Directors of Kemira Oyj decided to establish a long-term incentive plan for 2019–2023. Kemira has a long-term share incentive plan directed towards a group of key employees, which is composed of 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.The Board has decided on the plan’s performance criteria and the targets 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. The restriction period only applies to the one-year performance period.

Share incentive plan	2019	2019-2021	2020	2020-2022	2021-2023
Performance period (calendar year)	2019	2019-2021	2020	2020-2022	2021-2023
Restriction period of shares	2 years	[1]	2 years	[1]	[1]
Issue year of shares	2020	2022	2021	2023	2024
Share price at the grant date	9.90	9.90	13.41	13.41	12.57
Number of transferred shares from the plans	263,175	—	194,097	—	—
Estimated number of shares on December 31, 2021	—	221,128	—	105,023	321,558
Number of participants on December 31, 2021	78	76	82	82	88
Performance criteria	Intrinsic value [2]	Intrinsic value [2]	Intrinsic value [2]	Intrinsic value [2] and organic growth-%	Intrinsic value [2] and organic growth-%

1) A restriction period is not applied to three-year performance periods.
2) The amount of the reward is based on the intrinsic value which is defined as follows: operative EBITDA * 8 - net debt.

Share incentive plans 2022–2026

In December 2021, the Board of Directors of Kemira Oyj decided to establish a long-term share incentive plan directed to a group of key employees in Kemira. The long-term share incentive plan includes three three-year performance periods: years 2022–2024, 2023–2025 and 2024–2026. The Board shall decide on the plan’s performance criteria and on the required performance levels for each criterion at the beginning of each performance period. The Board shall decide on the plan’s participants and share allocations at the beginning of each performance period.

The potential reward is paid partly in Kemira Oyj's shares and partly in cash. The cash portion covers taxes and tax-related costs arising from the reward to the participant. As a rule, no reward will be paid if a participants employment or service ends before the reward payment.

Share incentive plan 2022–2024

Participation in the long-term share incentive plan’s performance period 2022–2024 is directed to approximately 90 people. The reward to be paid from the 2022–2024 performance period, if the criteria are fulfilled, will amount up to a maximum of 643,500 Kemira Oyj shares. In addition, a cash proportion covers the taxes and tax-related costs arising from the reward is included.

THE EFFECT OF SHARE-BASED PAYMENTS ON OPERATING PROFIT

EUR million	Note	2021	2020
Rewards provided in shares		3.9	3.3
Rewards provided in cash		4.5	3.7
Total	2.2.	8.4	7.0

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. The Group's 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 on a straight-line basis over the vesting period, which is the period over which the specified vesting conditions are to be satisfied.

The fair value of the share awards has been determined at the grant date and less the estimated expected dividends that will not be received during the vesting period. The fair value of the rewards is based on the Group's estimate of the number of shares to which the right is expected to vest at the end of the vesting period. An estimate of the number of shares is reviewed at each balance sheet date. The potential effect of revisions to estimates is recognized as a personnel expense in the income statement, with the corresponding fair value adjustment made to equity.

2.4 DEPRECIATION, AMORTIZATION AND IMPAIRMENTS

EUR million	2021	2020
Amortization of intangible assets and depreciation of property, plant and equipment		
Other intangible assets [1]	24.1	28.6
Buildings and constructions	21.5	19.4
Machinery and equipment	114.9	112.2
Other tangible assets	5.6	5.2
Total	166.2	165.4
Depreciations of right-of-use assets		
Land	1.6	1.2
Buildings and constructions	10.1	8.6
Machinery and equipment	21.8	21.4
Other tangible assets	0.6	0.7
Total	34.1	31.9
Impairments of intangible assets and property, plant and equipment [2]		
Goodwill	1.1	0.0
Buildings and constructions	0.4	0.0
Machinery and equipment	1.0	0.0
Other tangible assets	0.4	0.0
Total	2.9	0.0
Total depreciation, amortization and impairments	203.1	197.4

1) Amortization of intangible assets related to business acquisitions amounted to EUR 12.1 million (14.8) during the financial year 2021.
2) Impairment losses related to plant closure in France in 2021.

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 asset's estimated 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	2021	2020
Finance income		
Dividend income	0.0	0.0
Interest income		
Interest income from loans and receivables [1]	6.1	1.1
Interest income from financial assets at fair value through profit or loss	0.7	0.4
Other finance income	0.0	0.1
Total	6.8	1.5
Finance expense		
Interest expenses		
Interest expenses from other liabilities	-19.4	-19.5
Interest expenses from financial liabilities at fair value through profit or loss	-3.6	-3.2
Interest expenses from lease liabilities	-6.2	-6.5
Other finance expenses [2]	-4.8	-5.2
Total	-34.1	-34.4
Exchange differences		
Exchange differences from financial assets and liabilities at fair value through profit or loss	9.2	-9.8
Exchange differences, other	-8.6	7.9
Total	0.6	-1.9
Total finance income and expenses	-26.7	-34.9
Net finance expenses as a percentage of revenue, %	1.0	1.4
Net interest as a percentage of revenue, %	0.8	1.1

EUR million	2021	2020
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]	19.3	-0.8
Total	19.3	-0.8
Exchange differences		
Realized	-10.2	9.1
Unrealized	10.8	-11.1
Total	0.6	-1.9

1) Includes a gain of EUR 5.6 million arising from bond liability management in March 2021, when EUR 97 million of outstanding notes maturing in 2022 were exchanged for a EUR 200 million issuance of new senior unsecured notes.
2) Includes EUR 1.8 million (1.9) of arrangement fees relating to loans in 2021.
3) Consists mostly from changes in fair value of derivatives under hedge accounting treatment.

2.6 INCOME TAXES

EUR million	2021	2020
Current taxes	-30.5	-38.2
Taxes for prior years	-1.9	-0.1
Change in deferred taxes	4.3	-4.7
Total	-28.2	-43.0

RECONCILIATION BETWEEN TAX EXPENSE AND TAX CALCULATED AT DOMESTIC TAX RATE

EUR million	2021	2020
Profit before tax	143.3	181.0
Tax at parent company's tax rate 20%	-28.7	-36.2
Foreign subsidiaries' different tax rate	-3.3	-1.9
Non-deductible expenses and tax-exempt profits	-1.8	-2.3
Share of profit or loss of associates	-0.1	0.0
Tax losses during the period without deferred tax	-0.9	-4.1
Tax for prior years	-1.9	-0.1
Effect of change in tax rates	0.0	0.1
Utilization of prior years' tax losses with no deferred tax	3.5	0.0
Changes in deferred taxes related to prior years	5.1	1.5
Income taxes in the Income Statement	-28.2	-43.0

In 2021, the effective tax rate of the Group was 19.6% (23.8%).

TAX LOSSES AND RELATED DEFERRED TAXES

	Tax losses carried forward		Recognized deferred taxes		Unrecognized deferred taxes	
EUR million	2021	2020	2021	2020	2021	2020
Expiry within 5 years	70.2	100.9	8.9	8.8	7.8	15.6
Expiry after 5 years	2.8	7.5	0.7	2.0	0.0	0.0
No expiry	73.0	86.5	1.6	2.9	16.7	24.8
Total	146.0	195.0	11.2	13.6	24.5	40.4

At the end of 2021, the subsidiaries had EUR 98.1 million (140.2) 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'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 regularly evaluates the positions taken in the tax returns to identify situations where 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

	2021	2020
Earnings per share, basic		
Net profit attributable to equity owners of the parent company, EUR million	108.1	131.3
Weighted average number of shares [1)]	153,092,232	152,878,743
Basic earnings per share, EUR	0.71	0.86
Earnings per share, diluted		
Net profit attributable to equity owners of the parent company, EUR million	108.1	131.3
Weighted average number of shares [1)]	153,092,232	152,878,743
Adjustments:		
Average number of treasury shares it is possible to be issued on the basis of the share-based payments	692,789	494,455
Weighted average number of shares for diluted earnings per share	153,785,021	153,373,198
Diluted earnings per share, EUR	0.70	0.86

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	2021	2020
Items that may be reclassified subsequently to profit or loss		
Exchange differences on translating foreign operations	35.7	-52.1
Cash flow hedges	24.2	-1.0
Items that will not be reclassified subsequently to profit or loss		
Other shares	50.2	-32.9
Remeasurements of defined benefit plans	26.8	-1.4
Other comprehensive income for the period before taxes	136.9	-87.4
Tax effects relating to components of other comprehensive income	-23.8	12.0
Other comprehensive income for the period, net of tax	113.3	-75.3

THE TAX RELATING TO COMPONENTS OF OTHER COMPREHENSIVE INCOME

	2021			2020		
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	35.7	-3.5	32.2	-52.1	5.0	-47.1
Cash flow hedges	24.2	-4.9	19.3	-1.0	0.2	-0.8
Items that will not be reclassified subsequently to profit or loss						
Other shares	50.2	-10.0	40.2	-32.9	6.6	-26.3
Remeasurements of defined benefit plans	26.8	-5.4	21.5	-1.4	0.2	-1.2
Total other comprehensive income	136.9	-23.8	113.3	-87.4	12.0	-75.3

3. CAPITAL EXPENDITURES AND ACQUISITIONS

3.1 GOODWILL

EUR Million	2021	2020
Net book value on Jan 1	504.1	515.8
Acquisition of subsidiaries and business acquisitions	0.0	0.0
Impairments [1)]	-1.1	0.0
Exchange differences	11.1	-11.7
Net book value on Dec 31	514.0	504.1

1) Impairments related to plant closure in France in 2021.

The impact of the COVID-19 pandemic on goodwill and other balance sheet items is described in Note 1. The Group's Accounting Policies for the Consolidated Financial Statements.

Impairment testing of goodwill

Goodwill is allocated to the 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.

	2021		2020	
EUR Million	Net book value	of which goodwill	Net book value	of which goodwill
Pulp & Paper	1,260	357	1,202	350
Industry & Water	812	157	714	154
Total	2,071	514	1,916	504

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 in the subsequent five-year forecast period was assumed to be 1% (2020: 1%) in both cash-generating units 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 both cash-generating units. The pre-tax discount rates used in performing the impairment tests of the Group's reportable segments are presented in the following table.

%	2021	2020
Pulp & Paper	7.5	7.9
Industry & Water	7.5	7.9

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

During the financial years 2021 and 2020, impairment tests have not indicated any impairment, and no impairment loss has been recognized in the income statement.

Sensitivity analysis

In 2021, as part of the impairment testing, the Group carried out sensitivity analysis that assessed 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, an increase of 1 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 the recoverable amount and therefore there would be no impairment losses 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 assesses 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 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 the recoverable amount with the carrying amount for the reportable segments Pulp & Paper and Industry & Water. 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

2021, EUR million	Other intangible assets	Prepayments	Total
Acquisition cost on Jan 1	317.7	3.5	321.2
Additions	9.3	0.6	9.9
Purchases of subsidiaries and business acquisitions	0.0	0.0	0.0
Decreases	-3.2	0.0	-3.2
Reclassifications	0.0	-0.1	-0.1
Exchange rate differences and other changes	6.7	0.1	6.8
Acquisition cost on Dec 31	330.5	4.1	334.6
Accumulated amortization on Jan 1	-243.2		-243.2
Accumulated amortization relating to decreases and transfers	3.2		3.2
Amortization during the financial year	-24.1		-24.1
Impairments	0.0		0.0
Exchange rate differences	-3.8		-3.8
Accumulated amortization on Dec 31	-267.9		-267.9
Net book value on Dec 31	62.6	4.1	66.7

2020, EUR million	Other intangible assets	Prepayments	Total
Acquisition cost on Jan 1	326.0	3.2	329.2
Additions	10.2	0.4	10.6
Purchases of subsidiaries and business acquisitions	0.0	0.0	0.0
Decreases	-15.9	0.0	-15.9
Reclassifications	1.4	0.0	1.4
Exchange rate differences and other changes	-4.0	-0.1	-4.1
Acquisition cost on Dec 31	317.7	3.5	321.2
Accumulated amortization on Jan 1	-233.8		-233.8
Accumulated amortization relating to decreases and transfers	15.9		15.9
Amortization during the financial year	-28.6		-28.6
Impairments	0.0		0.0
Exchange rate differences	3.2		3.2
Accumulated amortization on Dec 31	-243.2		-243.2
Net book value on Dec 31	74.5	3.5	78.0

The Group holds assigned emissions allowances under the EU Emissions Trading System at its Helsingborg site in Sweden and UK Emission Trading System at its Bradford site in the UK. At the Group level, the allowances showed a surplus of 35,386 tons of carbon dioxide in 2021 (a surplus of 106,568 tons). In 2021, 35,000 tons of allowances were sold and the income from them was EUR 2.9 million.

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. On the contrary, cloud-based software as service acquisitions do not, by their nature, meet the characteristics of an intangible asset and are therefore recognized as an expense. 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

2021, EUR million	Land	Buildings and constructions	Machinery and equipment	Other property, plant and equipment	Prepayments and assets under construction [1]	Total
Acquisition cost on Jan 1	49.8	499.2	1,709.5	82.5	100.8	2,441.8
Additions	0.1	43.1	99.4	7.5	8.8	158.8
Acquisitions of subsidiaries and business acquisitions	—	—	—	—	—	—
Decreases	—	-7.8	-47.9	-1.4	—	-57.1
Disposed of subsidiaries	—	—	—	—	—	—
Reclassifications	—	0.2	6.5	—	-6.5	0.1
Exchange rate differences and other changes	0.3	17.1	59.7	4.2	3.6	84.9
Acquisition cost on Dec 31	50.1	551.8	1,827.1	92.7	106.7	2,628.5
Accumulated depreciation on Jan 1	-9.9	-256.2	-1,117.0	-47.3		-1,430.4
Accumulated depreciation related to decreases and transfers	—	7.8	47.7	1.4		57.0
Depreciation during the financial year	—	-21.5	-114.9	-5.6		-142.1
Impairments	—	-0.4	-1.0	-0.4		-1.8
Exchange rate differences	—	-6.6	-38.2	-3.2		-48.1
Accumulated depreciation on Dec 31	-10.0	-277.0	-1,223.4	-55.0		-1,565.4
Net book value on Dec 31	40.2	274.8	603.7	37.7	106.7	1,063.0

1) Prepayment and non-current assets under construction are mainly comprised of plant investments. -

2020, EUR million	Land	Buildings and constructions	Machinery and equipment	Other property, plant and equipment	Prepayments and assets under construction [1]	Total
Acquisition cost on Jan 1	49.8	503.6	1,695.6	77.4	137.7	2,464.0
Additions	0.0	54.2	153.2	10.5	-32.9	185.0
Acquisitions of subsidiaries and business acquisitions [1]	0.0	0.0	0.0	0.0	0.0	0.0
Decreases	0.1	-42.2	-79.7	-2.2	0.0	-124.0
Disposed of subsidiaries	0.0	0.0	0.0	0.0	0.0	0.0
Reclassifications	0.0	2.1	-2.6	0.3	0.0	-0.1
Exchange rate differences and other changes	-0.1	-18.5	-57.0	-3.6	-4.0	-83.2
Acquisition cost on Dec 31	49.8	499.2	1,709.5	82.5	100.8	2,441.8
Accumulated depreciation on Jan 1	-9.9	-284.5	-1,117.9	-46.7		-1,458.9
Accumulated depreciation related to decreases and transfers	-0.1	41.2	79.3	2.2		122.6
Depreciation during the financial year	0.0	-19.4	-112.2	-5.2		-136.8
Impairments	0.0	0.0	0.0	0.0		0.0
Exchange rate differences	0.0	6.4	33.8	2.4		42.7
Accumulated depreciation on Dec 31	-9.9	-256.2	-1,117.0	-47.3		-1,430.4
Net book value on Dec 31	39.9	243.0	592.5	35.2	100.8	1,011.4

1) Prepayment and non-current assets under construction are mainly comprised of plant investments.

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

CHANGE IN RIGHT-OF-USE ASSETS

2021, EUR million	Land	Buildings and constructions	Machinery and equipment	Other property, plant and equipment	Total
Net book value Jan 1	32.5	27.7	59.4	1.5	121.0
Additions	1.0	11.0	29.3	1.3	42.5
Depreciation and impairments	-1.6	-10.1	-21.8	-0.6	-34.1
Reclassifications	0.0	0.0	0.0	0.0	0.0
Exchange rate differences and other changes	1.2	0.9	4.3	0.0	6.4
Net book value Dec 31	33.1	29.5	71.1	2.1	135.8

2020, EUR million	Land	Buildings and constructions	Machinery and equipment	Other property, plant and equipment	Total
Net book value Jan 1	28.7	31.9	73.7	2.0	136.2
Additions	7.0	5.7	11.9	0.3	25.0
Depreciation and impairments	-1.2	-8.6	-21.4	-0.7	-31.9
Reclassifications	-1.5	0.0	0.0	0.0	-1.5
Exchange rate differences and other changes	-0.6	-1.4	-4.8	-0.1	-6.9
Net book value Dec 31	32.5	27.7	59.4	1.5	121.0

Maturity of lease liabilities has been presented in 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.

In 2021, the amount of lease expenses recognized in the income statement for leases of short-term or low-value assets is EUR 4 million (3).

The Group's accounting policies

Leases

At the time of entering into an agreement, the Group 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 the Group, as lessee, the right to control the asset and control its use for a specified period, against consideration. The Group's leases are mainly for land, buildings and transport equipment.

The lease is recognized as a right-of-use asset and a corresponding liability when the leased asset is available to the Group. 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. The Group 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. In building leases, lease and non-lease components are treated separately wherever they can be identified and distinguished from the right-of-use asset. 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. 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

2021, EUR million	The shares of Pohjolan Voima Group	Other non-listed shares	Total
Net book value on Jan 1	210.6	1.7	212.3
Additions [1]	—	1.0	1.0
Decreases [2]	-3.5	—	-3.5
Change in fair value	50.2	—	50.2
Net book value on Dec 31	257.3	2.7	260.0
2020, EUR million			
Net book value on Jan 1	243.4	1.7	245.2
Additions	—	—	—
Decreases	—	—	—
Change in fair value	-32.9	—	-32.9
Net book value on Dec 31	210.6	1.7	212.3

1) Kemira acquired a minority interest in SimAnalytics Oy.
2) Capital repayment of PVO's G5 series shares.

The impacts of the COVID-19 pandemic on the shares of Pohjolan Voima Group and other balance sheet items are described in Note 1. The Group's Accounting Policies for the Consolidated Financial Statements.

SHARES IN THE POHJOLAN VOIMA GROUP

EUR million	Class of shares	Holding, %	Class of assets	2021	2020
Pohjolan Voima Oyj	A	5	hydro power	108.4	89.0
Pohjolan Voima Oyj	B	2	nuclear power	43.3	32.8
Pohjolan Voima Oyj [1]	B2	7	nuclear power	21.3	21.3
Teollisuuden Voima Oyj	A	2	nuclear power	83.4	63.2
Other Pohjolan Voima Oyj	C2, G5, G6, M	several	several	0.8	4.3
Total				257.3	210.6

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 16 December 2021 states that the reactor at the OL3 regular electricity production will start in June 2022. On 21 December 2021, the reactor at the OL3 nuclear power plant was started up for the first time.

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

Discounted cash flow assumptions and sensitives

	2021	2020
Short-term discount rate	3.6%	3.7%
Long-term discount rate	3.7%	3.7%
Electricity price estimate EUR/MWh	42.63 - 48.60	34.26 - 52.35
Forward electricity prices EUR/MWh	37.20 - 82.49	32.20 - 44.25

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 +/- 37 million (+/- 32). 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 -38 million (-34) or approximately EUR 63 million (57).

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 Oyj (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/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 for the Finnish price 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.

4. WORKING CAPITAL AND OTHER BALANCE SHEET ITEMS

NET WORKING CAPITAL

EUR million	Note	2021	2020
Inventories	4.1.	352.1	242.3
Trade receivables and other receivables	4.2.	475.2	362.0
Excluding financing items in other receivables [1]		-35.4	-16.9
Trade payables and other liabilities	4.3.	538.3	422.2
Excluding financing items in other liabilities [1]		-33.5	-31.8
Total		287.2	197.0

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 to IFRS figures.

4.1 INVENTORIES

EUR million	2021	2020
Materials and supplies	111.3	70.5
Finished goods	208.8	157.7
Prepayments	32.0	14.1
Total	352.1	242.3

In 2021, EUR 2.6 million (2.9) 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	2021	2020
Trade and other receivables		
Trade receivables	373.0	288.5
Prepayments	6.9	3.0
Prepaid expenses and accrued income	62.3	42.4
Other receivables	32.9	28.1
Total	475.2	362.0

AGING OF OUTSTANDING TRADE RECEIVABLES

	2021		
EUR million	Receivables, gross amount	Expected credit losses	Receivables, net amount
Not due trade receivables	334.6	-0.3	334.3
Trade receivables 1-90 days overdue	38.1	-0.1	38.0
Trade receivables more than 91 days overdue	3.7	-3.0	0.7
Total	376.4	-3.3	373.0

	2020		
EUR million	Receivables, gross amount	Expected credit losses	Receivables, net amount
Not due trade receivables	258.9	-0.2	258.7
Trade receivables 1-90 days overdue	30.1	-0.4	29.7
Trade receivables more than 91 days overdue	4.6	-4.5	0.1
Total	293.7	-5.2	288.5

During 2020 COVID-19 pandemic caused increased uncertainty to collection of trade receivables within certain customers and expected credit losses were increased. In 2021, these COVID-19 related increases were released. The impact of the COVID-19 pandemic on trade receivables and other balance sheet items are described in Note 1. The Group's Accounting Policies for the Consolidated Financial Statements. In 2021, the impairment loss (+) /gain(-) of trade receivables amounted to EUR -0.7 million (0.3).

In 2021, items that were due in a time period longer than one year included trade receivables of EUR 0.3 million (0.2), prepaid expenses and an accrued income of EUR 10.3 (4.4), other receivables of EUR 0.4 (2.4) and prepayments of EUR 0.4 (0.5)

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 over their expected life.

The expected credit loss rates for the impairment model vary for trade receivables in EMEA, Americas and APAC according to age distribution and geographical area. 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 the 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	2021	2020
Trade payables and other liabilities		
Prepayments received	2.5	7.4
Trade payables	285.5	180.2
Accrued expenses	208.8	215.0
Other non-interest-bearing current liabilities	41.4	19.6
Total	538.3	422.2
Accrued expenses		
Employee benefits	73.9	85.4
Items related to revenue and purchases	104.0	74.1
Interest	7.2	6.6
Exchange rate differences	0.8	16.1
Other	22.9	32.8
Total	208.8	215.0

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, 2021	Recognized in the income statement	Recognized in other comprehensive income	Recognized in equity	Acquired and disposed subsidiaries	Exchange differences and reclassifications	Dec 31, 2021
Deferred tax liabilities							
Depreciations and untaxed reserves	51.6	3.1	0.0	0.0	0.0	2.6	57.3
Other shares	18.0	0.0	10.0	0.0	0.0	0.0	28.0
Defined benefit pensions	10.2	-0.7	5.1	0.0	0.0	0.0	14.6
Fair value adjustments of net assets acquired	1.7	-0.6	0.0	0.0	0.0	0.0	1.1
Other accruals	5.1	-3.2	8.6	0.7	0.0	0.2	11.4
Total	86.5	-1.4	23.8	0.7	0.0	2.7	112.4
Deducted from deferred tax assets	-34.6						-35.3
Deferred tax liabilities in the balance sheet	52.0						77.1
Deferred tax assets							
Provisions	17.9	2.6	0.0	0.0	0.0	-0.1	20.3
Tax losses	13.6	-2.9	0.0	0.0	0.0	0.5	11.2
Defined benefit pensions	11.6	-0.3	-0.4	0.0	0.0	-0.1	10.9
Other accruals	19.0	3.4	0.3	0.0	0.0	0.6	23.3
Total	62.1	2.9	-0.1	0.0	0.0	0.9	65.8
Deducted from deferred tax liabilities	-34.6						-35.3
Deferred tax assets in the balance sheet	27.6						30.5

EUR million	Jan 1, 2020	Recognized in the income statement	Recognized in other comprehensive income	Recognized in equity	Acquired and disposed subsidiaries	Exchange differences and reclassifications	Dec 31, 2020
Deferred tax liabilities							
Depreciations and untaxed reserves	44.3	11.6	0.0	0.0	0.0	-4.3	51.6
Other shares	24.5	0.0	-6.6	0.0	0.0	0.0	18.0
Defined benefit pensions	10.4	0.0	-0.1	0.0	0.0	-0.1	10.2
Fair value adjustments of net assets acquired	2.8	-0.7	0.0	0.0	0.0	-0.4	1.7
Other accruals	9.5	1.9	-5.2	0.3	0.0	-1.5	5.1
Total	91.5	12.7	-11.8	0.3	0.0	-6.1	86.5
Deducted from deferred tax assets	-23.7						-34.6
Deferred tax liabilities in the balance sheet	67.8						52.0
Deferred tax assets							
Provisions	17.7	3.6	0.0	0.0	0.0	-3.4	17.9
Tax losses	12.2	0.6	0.0	0.0	0.0	0.8	13.6
Defined benefit pensions	11.5	-0.5	0.2	0.0	0.0	0.4	11.6
Other accruals	18.0	4.3	0.0	0.0	0.0	-3.4	18.9
Total	59.4	8.0	0.2	0.0	0.0	-5.5	62.1
Deducted from deferred tax liabilities	-23.7						-34.6
Deferred tax assets in the balance sheet	35.7						27.5

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 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. Currently the majority of the members of Pension Fund Neliapila are pensioners. At the end of 2021, the obligations of Pension Fund Neliapila totaled EUR 203.9 million (212.5) and assets of the plan totaled EUR 277.1 million (263.5).

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.

The Board of Directors of Pension Fund Neliapila decided in December 2021 to return the fund's surplus of EUR 10 million to Kemira Group companies. The return of surplus will be paid by Pension Fund Neliapila when an approval is obtained from the Financial Supervisory Authority. The approval is required by the Pension Fund Act. The surplus payment is expected to be paid during the first half of 2022. The return of surplus of the pension plan assets will be recognized as a re-classification to financial assets in the Group's consolidated balance sheet.

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 2021, the defined benefit obligations in Sweden totaled EUR 53.7 million (55.1).

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

EUR million	2021	2020
Present value of defined benefit obligations	312.0	321.6
Fair value of plans' assets	-292.0	-276.4
Surplus (-) / Deficit (+)	20.0	45.1
The effect of asset ceiling	0.8	0.0
Net receivables (-) / liabilities (+) of defined benefit plans recognized in the Balance Sheet	20.9	45.1
Liabilities of defined benefit plans	94.1	96.3
Receivables of defined benefit plans	-73.2	-51.1
Net receivables (-) / liabilities (+) of defined benefit plans recognized in the Balance Sheet	20.9	45.1
AMOUNTS OF DEFINED BENEFIT PLANS RECOGNISED IN THE INCOME STATEMENT		
Service costs	2.9	3.3
Net interest cost [1)]	0.7	0.8
Defined benefit plans' expenses (+) / income (-) in the Income Statement	3.6	4.1

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

The assessment of impact of the COVID-19 pandemic on defined benefit plans and other balance sheet items are described in Note 1. The Group's Accounting Policies for the Consolidated Financial Statements.

DEFINED BENEFIT PLANS RECOGNIZED IN THE OTHER COMPREHENSIVE INCOME

EUR million	2021	2020
Items resulting from remeasurements of defined benefit plans [2]		
Actuarial gains (-) / losses (+) in defined benefit obligations arising from changes in demographic assumptions	0.0	0.1
Actuarial gains (-) / losses (+) in defined benefit obligations arising from changes in financial assumptions [3]	1.2	13.5
Actuarial gains (-) / losses (+) in defined benefit obligations arising from experience based assumptions	1.6	-3.2
Actuarial gains (-) / losses (+) in plan assets [3]	-30.3	-8.2
Effect from asset ceiling	0.8	-0.8
Defined benefit plans' expenses (+) / income (-) in the other comprehensive income	-26.8	1.4

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 2021 and 2020, the actuarial gains and losses are mainly due to return on assets, change in the discount rate and inflation in Pension Fund Neliapila.

CHANGES IN PLAN ASSETS OVER THE PERIOD IN DEFINED BENEFIT PLANS

EUR million	2021	2020
Defined benefit obligation on Jan 1	321.6	323.5
Current service costs	2.8	2.9
Interest costs	1.7	3.1
Actuarial losses (+) / gains (-)	2.8	10.3
Exchange differences on foreign plans	-0.2	1.0
Benefits paid	-16.7	-17.6
Transfers to DC component [4]	—	-1.8
Curtailments and settlements	-0.3	—
Other items	0.4	0.2
Present value of defined benefit obligations on Dec 31	312.0	321.6

4) In Canada, the defined benefit (DB) pension plan has been converted to a defined contribution plan. DB pension obligations have been transferred to an insurance company.

CHANGES IN PLAN ASSETS OVER THE PERIOD IN DEFINED BENEFIT PLANS

EUR million	2021	2020
Fair value on Jan 1	276.4	282.9
Interest income	0.9	2.3
Contributions	0.3	0.3
Return of surplus assets [5]	-3.0	—
Actuarial losses (-) / gains (+)	30.3	8.2
Exchange differences on foreign plans	0.6	-0.7
Benefits paid	-13.4	-14.3
Transfers to DC component [4]	—	-1.8
Other items	-0.2	-0.6
Fair value of plan assets on Dec 31	292.0	276.4

5) In 2021, Pension Fund Neliapila paid to a surplus return of EUR 3 million to Kemira Group companies.

PLAN ASSETS BY ASSET CATEGORY IN DEFINED BENEFIT PLANS

EUR million	2021	2020
Interest rate investments and other assets	176.1	163.4
Shares and share funds	90.0	87.2
Properties occupied by the Group	24.3	24.3
Kemira Oyj's shares	1.5	1.5
Total assets	292.0	276.4

The Finnish Pension Fund Neliapila has most of the defined benefit plan's assets. At the end of 2021, the Pension Fund Neliapila's assets amounted to EUR 277.1 million (263.5), which consisted of interest rate investments and other assets of EUR 163.9 million (154.1), shares and share funds of EUR 87.3 million (83.6), properties of EUR 24.3 million (24.3) and Kemira Oyj's shares of EUR 1.5 million (1.5). 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 31.3 million (10.5).

SIGNIFICANT ACTUARIAL ASSUMPTIONS

%	2021	2020
Discount rate	1.0 - 1.8	0.3 - 3.1
Inflation rate	1.5 - 3.3	1.1 - 3.0
Future salary increases	2.0 - 2.7	1.1 - 2.5
Future pension increases	1.8 - 2.3	1.4 - 2.0

The significant assumptions used in calculating the obligations of the Finnish Pension Fund Neliapila were as follows: discount rate 1.0% (0.3%), inflation rate 2.0% (1.1%), future salary increases 2.0% (1.1%) and future pension increases 2.3% (1.4%).

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 20.2 million (6.9%), if all other assumptions were held constant.

SENSITIVITY ANALYSIS - PENSION FUND NELIAPILA IN FINLAND

	Defined benefit obligation		Impact on defined benefit obligation	
EUR million	2021	2020	2021	2020
Discount rate 1.0% (0.3%)	203.9	212.5		
Discount rate +0.5%	192.6	200.5	-5.6%	-5.7%
Discount rate -0.5%	216.5	225.8	6.1%	6.3%
Future pension increases 2.3% (1.4%)	203.9	212.5		
Future pension increases +0.5%	215.1	224.4	5.5%	5.6%
Future pension increases -0.5%	193.7	201.6	-5.0%	-5.1%

A change in mortality assumption in which life expectancy is increased by one year will increase the defined benefit obligation by EUR 10.1 million (4.9%).

SENSITIVITY ANALYSIS - ITP 2 PENSION PLAN IN SWEDEN

	Defined benefit obligation		Impact on defined benefit obligation	
EUR million	2021	2020	2021	2020
Discount rate 1.7% (1.0%)	53.7	55.1		
Discount rate +0.5%	49.7	50.9	-7.4%	-7.6%
Discount rate -0.5%	58.1	59.8	8.2%	8.6%
Future salary increases 2.7% (2.0%)	53.7	55.1		
Future salary increases +0.5%	55.0	56.4	2.4%	2.4%
Future salary increases -0.5%	52.5	53.9	-2.2%	-2.2%

A change in mortality assumption in which life expectancy is increased by one year will increase the defined benefit obligation by EUR 2.5 million (4.7%).

Expected contributions to the defined benefit plans for the year ending on December 31, 2022, are EUR 3.2 million. In addition, Pension Fund Neliapila is expected to pay a surplus return of EUR 10 million to Kemira Group companies during the first half of 2022.

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	Environmental provisions [1]	Other provisions [2] [3]	Total
Non-current provisions					
On January 1, 2021	0.8	0.4	21.1	13.2	35.6
Exchange rate differences	0.0	0.0	0.2	0.0	0.2
Additional provisions and increases in existing provisions	0.0	0.0	4.0	26.9	31.0
Used during the financial year	-0.1	0.0	-0.4	-0.2	-0.7
Unused provisions reversed	-0.1	-0.5	-1.0	0.0	-1.6
Reclassification	-0.3	0.0	-4.7	-11.5	-16.5
On December 31, 2021	0.4	0.0	19.2	28.4	48.0
Current provisions					
On January 1,2021	3.5	0.2	11.7	16.4	31.7
Exchange rate differences	0.3	0.0	0.1	0.0	0.5
Additional provisions and increases in existing provisions	3.7	0.3	5.5	15.8	25.4
Used during the financial year	-4.8	0.0	-6.8	-35.8	-47.4
Unused provisions reversed	-0.1	-0.1	0.0	-3.0	-3.3
Reclassification	0.2	0.0	4.7	11.5	16.3
On December 31, 2021	2.7	0.4	15.2	4.9	23.1

1) The Group's operations in the chemical industry are governed by numerous international agreements as well as regional and national legislation all over the world. The Group treats its environmental liabilities and risks according to established internal principles and procedures. In 2021, provisions for environmental remediation totaled EUR 34.4 million (32.8). The biggest provisions relate to site closures and reconditioning of the sediment of a lake in Vaasa, Finland.

2) In 2021, Kemira compensated EUR 22.75 million as a damage claim settlement in costs and damages to the CDC. In 2019, Kemira had recognized a provision of EUR 11.5 million related to CDC's claim.

3) In 2021, Kemira recognized a provision for expected liabilities of 29 million euro regarding energy company producing steam in Pori, Finland, owned via Pohjolan Voima. Provision amount is based on the estimated low utilization period.

EUR million	2021	2020
Breakdown of the total amount of provisions		
Non-current provisions	48.0	35.6
Current provisions	23.1	31.7
Total	71.1	67.3

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.

5. CAPITAL STRUCTURE AND FINANCIAL RISKS

5.1 CAPITAL STRUCTURE

EUR million	2021	2020
Equity	1,342.7	1,205.3
Total assets	3,139.3	2,795.7
Gearing, % [1]	63	63
Equity ratio, % [2]	43	43

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	2021	2020
Non-current interest-bearing liabilities	5.3.	776.9	724.1
Current interest-bearing liabilities	5.3.	215.3	194.7
Interest-bearing liabilities		992.2	918.8
Cash and cash equivalents	5.4.	142.4	159.5
Interest-bearing net liabilities		849.8	759.3

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

Kemira aims at above-the-market revenue growth with an operative EBITDA margin of 15–18%. The gearing target is below 75%. The revolving 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 0.58 for 2021 (0.58), corresponding to a dividend payout ratio of 82% (68%). Kemira's dividend policy aims at a competitive dividend that increase over-time.

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 category.

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.

INTEREST-BEARING NET LIABILITIES CONNECTED IN CASH FLOW STATEMENTS

EUR million	Non-current interest-bearing 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, 2021	751.1	167.7	918.8	159.5	759.3
Change in net liabilities with cash flows					
Proceeds from non-current liabilities (+)	200.0		200.0		200.0
Payments of non-current liabilities (-)	-97.3		-97.3		-97.3
Payments of lease liabilities (-)	-33.1		-33.1		-33.1
Proceeds from current liabilities (+) and payments (-)		-53.9	-53.9		-53.9
Change in cash and cash equivalents				-22.2	22.2
Change in net liabilities without cash flows					
Increases in lease liabilities (+)	42.1		42.1		42.1
Effect on change in exchange gains and losses	10.1	13.2	23.3	5.1	18.2
Other changes without cash flows	-8.0	0.1	-7.9	—	-7.9
Net book value on Dec 31, 2021	865.0	127.1	992.2	142.4	849.8

EUR million	Non-current interest-bearing 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, 2020	821.3	133.2	954.6	143.1	811.4
Change in net liabilities with cash flows					
Proceeds from non-current liabilities (+)	—		—		—
Payments of non-current liabilities (-)	-55.0		-55.0		-55.0
Payments of lease liabilities (-)	-30.6		-30.6		-30.6
Proceeds from current liabilities (+) and payments (-)		37.2	37.2		37.2
Change in cash and cash equivalents				22.4	-22.4
Change in net liabilities without cash flows					
Increases in lease liabilities (+)	24.2		24.2		24.2
Effect on change in exchange gains and losses	-10.4	-3.0	-13.4	-6.0	-7.4
Other changes without cash flows	1.6	0.3	1.9	—	1.9
Net book value on Dec 31, 2020	751.1	167.7	918.8	159.5	759.3

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, 2021	152,924	2,418	155,343	221.8	16.3
Treasury shares issued to the participants in the share incentive plan 2020	195	-195	—	—	-1.3
Treasury shares issued to the Board of Directors	11	-11	—	—	-0.1
The shares returned by the participants from the share incentive plans	-3	3	—	—	0.0
December 31, 2021	153,127	2,215	155,343	221.8	14.9
January 1, 2020	152,649	2,693	155,343	221.8	18.1
Treasury shares issued to the participants in the share incentive plan 2019	269	-269	—	—	-1.8
Treasury shares issued to the Board of Directors	14	-14	—	—	-0.1
The shares returned by the participants from the share incentive plans	-8	8	—	—	0.1
December 31, 2020	152,924	2,418	155,343	221.8	16.3

Kemira Oyj has one class of shares. Each share entitles its holder to one vote at the Annual General Meeting. On December 31, 2021, the share capital was EUR 221.8 million and the number of shares was 155,342,557 including 2,215,073 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 2,215,073 (2,418,440) treasury shares on December 31, 2021. The average share price of the treasury shares was EUR 6.73, and they represented 1.4% (1.6%) of the share capital, and the aggregate number of votes conferred by all shares. The aggregate par value of the treasury shares is EUR 3.2 million (3.5).

Share premium

The share premium is a reserve accumulated through subscriptions 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 the reserve will no longer change.

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, 2021, other reserves were EUR 4.0 million (3.8).

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

2021, EUR million	2022	2023	2024	2025	2026	2027-	Book value, total
Loans from financial institutions	—	149.3	—	129.8	—	—	279.1
Bonds	52.8	—	197.3	—	—	191.3	441.4
Lease liabilities	28.7	24.4	17.8	11.8	9.0	45.1	136.8
Other non-current liabilities	—	1.0	—	—	—	—	1.0
Other current liabilities	133.8	—	—	—	—	—	133.8
Total amortizations of interest-bearing liabilities	215.3	174.7	215.1	141.6	9.0	236.4	992.2

2020, EUR million	2021	2022	2023	2024	2025	2026-	Book value, total
Loans from financial institutions	—	—	148.9	—	126.8	—	275.7
Bonds	—	150.0	—	196.7	—	—	346.7
Lease liabilities	27.0	19.9	15.6	10.4	6.9	41.7	121.4
Other non-current liabilities	—	1.3	6.0	—	—	—	7.3
Other current liabilities	167.7	—	—	—	—	—	167.7
Total amortizations of interest-bearing liabilities	194.7	171.2	170.4	207.1	133.7	41.7	918.8

At year-end 2021, the Group's interest-bearing net liabilities were EUR 849.8 million (759.3). For more information, see Note 5.1. Capital structure.

MATURITY OF NON-CURRENT INTEREST-BEARING LIABILITIES BY CURRENCIES

2021 Currency, EUR million	2022	2023	2024	2025	2026	2027-	Book value, total
EUR	60.5	156.0	201.6	92.2	1.9	208.1	720.3
USD	14.6	13.8	9.3	46.7	5.6	13.8	103.8
GBP	0.5	0.5	0.5	0.4	0.1	10.7	12.7
Other	12.6	4.3	3.8	2.4	1.4	3.7	28.2
Total	88.2	174.7	215.1	141.6	9.0	236.4	865.0

2020 Currency, EUR million	2021	2022	2023	2024	2025	2026-	Book value, total
EUR	8.5	155.8	151.8	198.7	91.6	17.0	623.4
USD	13.1	11.4	10.5	6.6	40.9	10.9	93.4
GBP	0.3	0.2	0.1	0.1	0.1	9.9	10.7
Other	5.1	3.7	8.1	1.7	1.1	3.8	23.5
Total	27.0	171.2	170.4	207.1	133.7	41.7	751.1

5.4. FINANCIAL ASSETS AND LIABILITIES BY MEASUREMENT CATEGORIES
FINANCIAL ASSETS

		2021					2020				
			Fair values					Fair values			
EUR million	Note	Book values	Level 1	Level 2	Level 3	Total	Book values	Level 1	Level 2	Level 3	Total
Fair value through profit and loss	5.6.										
Derivatives not qualifying for hedge accounting		1.3	—	1.3	—	1.3	3.5	—	3.5	—	3.5
Fair value through other comprehensive income	5.6.										
Derivatives qualifying for hedge accounting											
Cash flow hedges		32.7	—	32.7	—	32.7	12.2	—	12.2	—	12.2
Other shares	3.5.										
The shares of Pohjolan Voima Group		257.3	—	—	257.3	257.3	210.6	—	—	210.6	210.6
Other non-listed shares		2.7	—	—	2.7	2.7	1.7	—	—	1.7	1.7
Amortized cost											
Other non-current assets [1]		7.3	—	7.3	—	7.3	7.3	—	7.3	—	7.3
Other current receivables [1]		0.3	—	0.3	—	0.3	0.4	—	0.4	—	0.4
Trade receivables [1]	4.2.	373.0	—	373.0	—	373.0	288.5	—	288.5	—	288.5
Cash and cash equivalents											
Cash in hand and at bank accounts		138.7	—	138.7	—	138.7	154.6	—	154.6	—	154.6
Deposits and money market investments [2]		3.7	—	3.7	—	3.7	4.9	—	4.9	—	4.9
Total financial assets		817.0	—	557.0	260.0	817.0	683.7	—	471.4	212.3	683.7

1) In 2021, other non-current assets and Other current receivables include expected credit losses of EUR 0.4 million (0.6) in accordance with the IFRS 9 standard. Trade receivables include expected credit losses of EUR 3.3 million (5.2). 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

		2021					2020				
		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		6.9	—	6.9	—	6.9	4.4	—	4.4	—	4.4
Fair value through other comprehensive income	5.6.										
Derivatives qualifying for hedge accounting											
Cash flow hedges		1.6	—	1.6	—	1.6	5.3	—	5.3	—	5.3
Amortized cost											
Interest-bearing liabilities	5.3.										
Non-current loans from financial institutions		279.1	—	290.5	—	290.5	275.7	—	289.5	—	289.5
Bonds		388.6	—	415.2	—	415.2	346.7	—	366.0	—	366.0
Current portion		52.8	—	54.7	—	54.7	—	—	—	—	—
Non-current leasing liabilities		108.1	—	108.1	—	108.1	94.4	—	94.4	—	94.4
Current portion		28.7	—	28.7	—	28.7	27.0	—	27.0	—	27.0
Other non-current liabilities		1.0	—	1.0	—	1.0	7.3	—	7.7	—	7.7
Current portion		6.7	—	6.9	—	6.9	—	—	—	—	—
Current loans from financial institutions		127.1	—	131.9	—	131.9	167.7	—	175.4	—	175.4
Non-interest-bearing liabilities											
Other non-current liabilities		9.4	—	9.4	—	9.4	8.1	—	8.1	—	8.1
Other current liabilities		23.5	—	23.5	—	23.5	19.6	—	19.6	—	19.6
Trade payables	4.3.	285.5	—	285.5	—	285.5	180.2	—	180.2	—	180.2
Total financial liabilities		1,319.1	—	1,364.1	—	1,364.1	1,136.4	—	1,177.5	—	1,177.5

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

Level 3 specification, financial assets EUR million	2021	2020
Net book value on Jan 1	212.3	245.2
Effect on other comprehensive income	50.2	-32.9
Increases	1.0	—
Decreases	-3.5	—
Net book value on Dec 31	260.0	212.3

The Group's accounting policies

When a financial asset or 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 at bank and in hand, 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 on 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 at bank and in hand, 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 fair value:

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

Level 2: Fair value is determined with valuation techniques. 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 the principles of treasury management. 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 whose 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 Chinese renminbi (CNY), U.S. dollar (USD), Swedish krona (SEK) and Canadian dollar (CAD). At the end of the year, the Chinese renminbi's denominated exchange rate risk against the euro had an equivalent value of approximately EUR 67 million (19), the average hedging rate and hedging ratio being 7.37 and 36% (0%), respectively. The U.S. dollar denominated exchange rate risk was approximately EUR 64 million (86), the average hedging rate and hedging ratio being 1.18 and 53% (41%), respectively. The denominated exchange rate risk of the Swedish krona against the euro had an equivalent value of approximately EUR 31 million (28), the average hedging rate and hedging ratio being 10.21 and 62% (68%), respectively. The Canadian dollar denominated exchange rate risk was approximately EUR 26 million (22), the average hedging rate and hedging ratio being 1.47 and 51% (46%), respectively.

In addition, Kemira is exposed to smaller transaction risks against the euro mainly in relation to the Norwegian krona, Polish zloty, Danish krona, Russian ruble and Thai baht and against the U.S. dollar mainly in relation to the Brazilian real and the Canadian dollar with the annual exposure in those currencies being approximately EUR 103 million.

	2021				2020			
Transaction exposure, the most significant currencies, EUR million	**CNY against EUR**	**USD against EUR**	**SEK against EUR**	**CAD against EUR**	**CNY against EUR**	**USD against EUR**	**SEK against EUR**	**CAD against EUR**
Operative cash flow forecast, net [1]	-67.0	64.3	-30.9	26.4	18.7	85.7	-27.7	22.2
Loans, net	1.0	370.0	-10.7	8.3	1.1	290.1	-12.1	3.8
Derivatives, operative cash flow hedging, net	40.1	-40.6	19.0	-13.5	—	-35.0	18.6	-11.2
Derivatives, hedging of loans, net	-2.7	-142.2	10.7	-8.3	-1.2	-81.5	10.6	-3.8
Total	-28.6	251.6	-11.8	12.9	18.6	259.3	-10.6	11.0

1) Based on a 12-month foreign currency operative cash flow forecast.

At the end of 2021, the foreign currency operative cash flow forecast for 2022 was EUR 331 million of which 54% was hedged (47%). 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 strengthening of the euro against Swedish krona, based on the exchange rates as of December 31, 2021 and without hedging, would increase EBITDA by approximately EUR 3 million, and a 10 percent strengthening of the euro against Chinese renminbi without hedging would increase EBITDA approximately EUR 7 million, whereas a 10 percent strengthening of euro against Canadian Dollar and the U.S. Dollar without hedging would cause a EUR 3 and 6 million negative impact to EBITDA, respectively. A corresponding increase in the exchange rates would have an equal opposite impact.

On the balance sheet date, the market value of currency derivatives included in cash flow hedge accounting was EUR -1.4 million (2.1). Cash flow hedge accounting deals have been done to hedge highly probable currency flows. In 2021, no ineffectiveness in derivatives under hedge accounting was recognized in the Income statement (-0.7).

The most significant translation risk currencies are the U.S. dollar, the Canadian dollar, the Swedish krona and Chinese renminbi.

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 80% (74%) of the Group's entire net debt portfolio including lease liabilities was fixed at the end of 2021. The net financing cost of the Group was 3.4% (4.1%). 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 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 29 months at the end of 2021 (20).

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

2021 Time to interest rate fixing, EUR million	<1 year	1–5 years	> 5 years	Total
Floating net liabilities	170.2	—	—	170.2
Fixed net liabilities [1]	52.8	290.0	200.0	542.8
Total	222.9	290.0	200.0	712.9

2020 Time to interest rate fixing, EUR million	<1 year	1–5 years	> 5 years	Total
Floating net liabilities	197.9	—	—	197.9
Fixed net liabilities [1]	—	440.0	—	440.0
Total	197.9	440.0	—	637.9

1) Excluding lease liabilities

On the balance sheet date, the average interest rate of the loan portfolio was approximately 1.7% (1.9%). If interest rates rose by one percentage point on January 1, 2022, the resulting interest expenses before taxes incurred by the Group over the next 12 months would increase by approximately EUR 0.7 million (0.6). Consequently, a decrease of one percentage point would decrease interest expenses by EUR 0.0 million. During 2022, Kemira will reprice 32% (31%) of the Group's net debt portfolio. On the balance sheet date, the Group had no outstanding interest rate derivatives.

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 its 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. 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 +/- 7.7 million (+/- 6.3). 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 174.9 million (167.1). 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.

No material changes related to Group's credit risk were associated with financing transactions in the year 2021 and these 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. The credit losses related to trade receivables are described in Note 4.2.

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 97.7% 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 48.2 million (40.2) on December 31, 2021. The amounts recognized in the balance sheet are EUR 2.1 million (1.5) in assets and EUR 0.1 million (0.1) in liabilities.

Liquidity and refinancing risks

Kemira's liquidity is secured with cash and cash equivalents, account overdrafts and a revolving credit facility. At the end of 2021, the Group's cash and cash equivalents stood at EUR 142.4 million (159.5), of which cash in bank accounts accounted for EUR 138.7 million (154.6) and bank deposits EUR 3.7 million (4.9). In addition, the Group has a revolving credit facility of EUR 400 million which will mature on April 17, 2026. At the turn of the year 2021/2022, 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 2021, the Group had no commercial papers outstanding on the market (50).

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 136.8 million (121.4) at the end of the year.

According to Group treasury policy, 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 outstanding loans excluding lease liabilities may temporarily be under the 3-year minimum target. The average maturity of debt excluding lease liabilities at the end of 2021 was 3.0 years (2.5).

LOAN REPAYMENTS

2021

Loan type, EUR million [1]	Undrawn	2022	2023	2024	2025	2026	2027-	Total drawn
Loans from financial institutions	—	—	150.0	—	129.8	—	—	279.8
Bonds	—	52.8	—	200.0	—	—	200.0	452.8
Revolving credit facility	400.0	—	—	—	—	—	—	—
Lease liabilities	—	35.9	28.9	21.3	14.6	10.9	73.7	185.3
Commercial paper program	600.0	—	—	—	—	—	—	—
Other interest-bearing non-current liabilities	—	—	1.0	—	—	—	—	1.0
Other interest-bearing current liabilities	—	133.8	—	—	—	—	—	133.8
Total interest-bearing liabilities	1,000.0	222.4	179.9	221.3	144.4	10.9	273.7	1,052.6

2020

Loan type, EUR million [1]	Undrawn	2021	2022	2023	2024	2025	2026-	Total drawn
Loans from financial institutions	—	—	—	150.0	—	126.8	—	276.8
Bonds	—	—	150.0	—	200.0	—	—	350.0
Revolving credit facility	400.0	—	—	—	—	—	—	—
Lease liabilities	—	32.6	24.4	19.3	13.4	9.3	81.3	180.3
Commercial paper program	550.0	50.0	—	—	—	—	—	50.0
Other interest-bearing non-current liabilities	—	—	1.3	6.0	—	—	—	7.3
Other interest-bearing current liabilities	—	117.7	—	—	—	—	—	117.7
Total interest-bearing liabilities	950.0	200.3	175.8	175.3	213.4	136.1	81.3	982.0

1) Loan structure presented by type and maturity using contractual undiscounted payments.

5.6 DERIVATIVE INSTRUMENTS

	Maturity structure					2021	2020
Nominal values, EUR million	**2022**	**2023**	**2024**	**2025**	**2026**	**Total**	**Total**
Currency derivatives							
Forward contracts	496.3	—	—	—	—	496.3	372.3
Inflow	288.8	—	—	—	—	288.8	210.6
of which cash flow hedges	19.7	—	—	—	—	19.7	21.1
Outflow	207.5	—	—	—	—	207.5	161.7
of which cash flow hedges	42.4	—	—	—	—	42.4	43.1
Other derivatives							
Electricity contracts, bought (GWh)	688.0	586.9	272.3	78.8	—	1,626.1	2,325.7
Electricity forward contracts	688.0	586.9	272.3	78.8	—	1,626.1	2,325.7
of which cash flow hedges	688.0	586.9	272.3	78.8	—	1,626.1	2,325.7

The 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.

	2021			2020		
Fair values, EUR million	**Positive**	**Negative**	**Net**	**Positive**	**Negative**	**Net**
Currency derivatives						
Forward contracts	1.4	-8.5	-7.1	6.0	-4.8	1.2
of which cash flow hedges	0.1	-1.6	-1.4	2.5	-0.4	2.1
Other derivatives						
Electricity forward contracts, bought [1]	32.5	0.0	32.5	9.7	-4.9	4.8
of which cash flow hedges	32.5	0.0	32.5	9.7	-4.9	4.8

1) Includes fair value of electricity forward contracts of EUR 7.7 million (3.2) and EUR -0.0 million (-2.8) maturing after the year 2022.

The Group has ISDA or EFET Master netting agreements with the counterparties of derivative contracts. They allow the net settlement of outstanding market value within the scope of the agreement in case of non-payment defined in the agreement. At the end of the reporting period, counterparty risk according to master netting agreements was EUR 32.5 million (7.9) to Kemira and EUR 7.1 million (1.9) to counterparties.

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 selected hedging items only. 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.

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 PAID TO THE CEO, DEPUTY CEO AND MEMBERS OF MANAGEMENT BOARD

EUR	Salaries and other benefits	Bonuses	Share-based payments [1]	2021 Total	2020 Total
CEO Jari Rosendal	724,189 [4]	319,901	493,058	1,537,148	1,713,058
Deputy CEO Jukka Hakkila [2]	187,193	84,181	172,570	443,943	500,506
Other members of Management Board [3]	1,553,372	757,889	1,260,632	3,571,893	3,929,403
Total	2,464,754	1,161,971	1,926,259	5,552,984	6,142,967

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

2) No remuneration was paid to the Deputy CEO based on CEO substitution.

3) Other members of the Management Board on December 31, 2021 are CFO Petri Castrén, CTO Matthew R. Pixton, President Pulp & Paper Kim Poulsen, EVP Operational Excellence Esa-Matti Puputti, President Industry & Water Antti Salminen and EVP Human Resources Eeva Salonen. 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) Includes 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 retirement age of the CEO is 63 years. 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.

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 24, 2021, 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 7, 2021 the 10,920 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 compensation, EUR 5)	2021 Total, EUR	2020 Total, EUR
Jari Paasikivi, Chairman	2,658	36,727	67,273	104,000	106,400
Matti Kähkönen, Vice Chairman (since March 24, 2021)	1,589	21,956	39,644	61,600	—
Wolfgang Büchele	1,271	17,562	38,438	56,000	60,800
Shirley Cunningham	1,271	17,562	50,438	68,000	77,600
Werner Fuhrmann	1,271	17,562	38,438	56,000	53,600
Timo Lappalainen	1,589	21,956	45,044	67,000	69,400
Kristian Pullola (since March 24, 2021)	1,271	17,562	33,038	50,600	—
Kaisa Hietala (until March 24, 2021)	—	—	2,400	2,400	56,000
Kerttu Tuomas (until March 24, 2021)	—	—	2,400	2,400	65,200
Total	10,920	150,887	317,113	468,000	489,000

5) Includes both annual fees and meeting fees.

TRANSACTIONS CARRIED OUT WITH RELATED PARTIES

EUR million	2021	2020
Revenue		
Associated companies	0.0	0.0
Leases, purchases of goods and services		
Associated companies	8.2	0.0
Pension Fund Neliapila	1.2	1.3
Total	9.4	1.3
Receivables		
Associated companies	0.0	0.0
Liabilities		
Associated companies	7.3	—
Pension Fund Neliapila	1.9	1.3

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

Related parties include 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 Oyj's shares representing 0.07% of the company's outstanding shares. Supplementary benefit in Neliapila and surplus return 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 the year-end of 2021 or 2020, 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 INVESTMENTS 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 (Jining) Environmental Engineering Co., Ltd.	Jining	China	100.0	0.0	0.0
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
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 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	Netherlands	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	0.0	0.0
Kemira Rotterdam B.V.	Rotterdam	Netherlands	100.0	0.0	0.0

	City	Country	Kemira Group's holding, %	Kemira Oyj's holding, %	Non-controlling interest's holding, %
Kemira South Africa (Pty) Ltd.	Weltevreden park	South Africa	100.0	0.0	0.0
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	2021	2020
Net book value on Jan 1	5.3	2.8
Additions	0.0	2.6
Decreases	0.0	0.0
Share of the profit/loss for the period	-0.5	0.0
Exchange rate differences	0.0	-0.1
Net book value on Dec 31	4.8	5.3

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	2021	2020
Assets	57.5	38.2
Liabilities	44.2	23.4
Revenue	8.1	0.0
Profit (+) / loss (-) for the period	-1.3	0.0

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

NON-CONTROLLING INTERESTS

EUR million	2021	2020
Net book value on Jan 1	13.2	13.3
Dividends	-6.5	-6.1
Share of the profit for the period	7.1	6.7
Exchange rate differences	0.1	-0.8
Net book value on Dec 31	13.9	13.2

7. OFF-BALANCE SHEET ITEMS

7.1 COMMITMENTS AND CONTINGENT LIABILITIES

COMMITMENTS

EUR million	2021	2020
Assets pledged		
On behalf of own commitments	—	6.2
Guarantees		
On behalf of own commitments	95.1	44.5
On behalf of associates	12.5	12.6
On behalf of others	1.8	2.0
Other obligations		
On behalf of own commitments	0.9	0.9
On behalf of others	16.3	16.3

The most significant off-balance sheet investments commitments

On December 31, 2021, major amounts of contractual commitments for the acquisition of property, plant, and equipment were EUR 22.1 million (17.9) for plant investments.

In addition, the Group has a lease commitment related to the R&D Center to be constructed in Finland with value of EUR 46.5 million.

Litigation

As announced on July 8, 2021, Kemira Chemicals Oy and CDC Project 13 SA and CDC Holding SA (together “CDC”) reached a settlement agreement in a damage litigation at the Court of Amsterdam concerning alleged damages relating to the alleged old infringement of competition law in the sodium chlorate business during 1994-2000. Kemira acquired Kemira Chemicals Oy (formerly Finnish Chemicals Oy) in 2005. Kemira Chemicals Oy paid compensation and costs to CDC thereunder in the amount of EUR 22.75 million in Q3/2021.

Besides, due to its extensive international operations, the Group 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 a 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 significant events after the balance sheet date.

Kemira Oyj's income statement

Thousand EUR	Note	1.1.-31.12.2021	1.1.-31.12.2020
Revenue	2	1,572,450	1,459,942
Change in inventory of finished goods and in work in progress +/-	4	23,328	-11,306
Other operating income	3	1,003	2,216
Materials and services	4	-902,075	-748,729
Personnel expenses	5	-50,947	-52,133
Depreciation, amortization and impairments	6	-25,568	-26,024
Other operating expenses	4	-572,917	-523,477
Operating profit		45,275	100,490
Financial income and expenses	7	26,455	-205,918
Profit before appropriations and taxes		71,730	-105,428
Appropriations	8	-74,702	-94,841
Income taxes	9	121	667
Profit (loss) for the financial year		-2,851	-199,603

Kemira Oyj's balance sheet

Thousand EUR	Note	31.12.2021	31.12.2020
ASSETS			
NON-CURRENT ASSETS			
Intangible assets	10	59,266	42,342
Tangible assets	11	33,471	34,207
Investments	12		
Holdings in Group undertakings		1,049,503	1,228,799
Receivables from Group companies		396,546	618,587
Other shares and holdings		99,608	102,108
Other receivables		6,127	6,127
Total investments		1,644,521	2,032,170
CURRENT ASSETS			
Inventories	13	140,004	99,626
Non-current receivables	14		
Deferred tax assets		16,814	12,877
Loan and other receivables		6,488	3,295
Current receivables	14	623,679	235,352
Cash and cash equivalents		74,107	97,209
Total current assets		861,091	448,359
Total assets		2,505,613	2,480,529

Thousand EUR	Note	31.12.2021	31.12.2020
EQUITY AND LIABILITIES			
CAPITAL AND RESERVES	15		
Share capital		221,762	221,762
Share premium account		257,878	257,878
Fair value reserve		19,387	5,216
Unrestricted equity reserve		199,964	199,964
Retained earnings		278,295	565,261
Profit (loss) for the financial year		-2,851	-199,603
Total equity		974,433	1,050,477
APPROPRIATIONS	16	9,795	5,593
PROVISIONS	17	57,066	38,213
LIABILITIES			
Non-current liabilities	18		
Deferred tax liabilities		5,151	1,304
Other non-current liabilities		677,148	628,670
Current liabilities	19	782,019	756,271
Total liabilities		1,464,318	1,386,245
Total equity and liabilities		2,505,613	2,480,529

Kemira Oyj's cash flow statement

Thousand EUR	2021	2020
CASH FLOWS FROM OPERATING ACTIVITIES		
Net profit for the period	-2,851	-199,603
Adjustments for		
Depreciation according to plan	25,568	26,024
Unrealized exchange differences (net)	27,300	-19,132
Financial income and expenses (+/-)	-26,455	205,918
Income taxes	-121	-667
Other adjustments (+/-)	98,687	104,630
Operating profit before change in working capital	122,128	117,171
Change in working capital		
Increase (-) / decrease (+) in non-interest-bearing current receivables	-58,724	-5,828
Increase (-) / decrease (+) in inventories	-40,378	11,204
Increase (+) / decrease (-) in short-term interest-free debts	227,187	15,648
Change in working capital	128,085	21,023
Cash generated from operations before financial items and taxes	250,213	138,194
Interest and other finance costs paid	-21,491	-18,845
Interest and other finance income received	22,884	17,647
Realized exchange differences (net)	-9,972	8,626
Dividends received	5,876	44,295
Income taxes paid	-2,154	-1,254
Net cash from operating activities	245,356	188,664

Thousand EUR	2021	2020
CASH FLOWS FROM INVESTING ACTIVITIES		
Acquisitions of other investments	-1,000	0
Purchases of intangible assets	-34,459	-8,587
Purchases of tangible assets	-7,447	-10,227
Proceeds from sale of investments	3,500	0
Proceeds from sale of tangible and intangible assets	227	2,403
Increase (-) / decrease (+) in loan receivables	-94,814	-121,198
Net cash used in investing activities	-133,993	-137,609
Cash flows before financing	111,363	51,055
CASH FLOWS FROM FINANCING ACTIVITIES		
Proceeds from non-current liabilities (+)	200,000	0
Repayment of non-current liabilities (-)	-97,500	-10,712
Short-term financing, net increase (+) / decrease (-)	-53,436	147,631
Dividends paid	-88,809	-85,635
Group contribution paid	-94,500	-96,000
Net cash used in financing activities	-134,245	-44,716
Net increase (+) / decrease (-) in cash and cash equivalents	-22,883	6,339
Cash and cash equivalents on Dec 31	74,107	97,209
Exchange gains (+) / losses (-) on cash and cash equivalents	-220	1,528
Cash and cash equivalents on Jan 1	97,209	89,342
Net increase (+) / decrease (-) in cash and cash equivalents	-22,883	6,339

Notes to the parent company financial statements

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

The presentation of shareholder loans has been changed during the financial year to be in line with their presentation in the Group. Earlier they were presented in Loan receivables. Now they are presented in the Investment group Other receivables. The change in presentation has been applied also to comparison year 2020.

Receivables and liabilities from electricity derivative in 2020 have been presented in Current receivables and liabilities. Now, in 2021, the non-current receivable from the electricity derivative of EUR 6,1 million are presented in Non-current receivables. In 2021, there were no non-current liabilities in the electricity derivative. The change in classification has been applied also to comparison information in 2020.

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

The financial risk management 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 entered in to the profit and loss statement. 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 entered in the profit and loss. Changes in the fair value of interest rate derivatives are recorded as 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 2.7 million (2.1), is included in the balance sheet.

OBLIGATORY PROVISIONS

Obligatory provisions are recognized from pensions, personnel-related costs, environmental and restructuring 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 day-to-day bookkeeping, 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 as assessed by the management. The efficient part of changes in the value of the electricity and currency derivatives qualifying for hedge accounting is recorded 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	2021	2020
Revenue by segments		
Pulp & Paper	716,079	678,946
Industry & Water	416,308	411,152
Intercompany revenue	440,062	369,844
Total	1,572,450	1,459,942
Distribution of revenue by geographical area as a percentage of total revenue		
Finland, domicile of the parent company	27	29
Other Europe, Middle East and Africa	59	57
Americas	10	8
Asia Pacific	4	5
Total	100	100

3. OTHER OPERATING INCOME

Thousand EUR	2021	2020
Gains on the sale of property, plant and equipment	77	1,151
Rent income	11	107
Insurance compensation received	11	74
Other income from operations	904	883
Total	1,003	2,216

4. EXPENSES

Thousand EUR	2021	2020
Change in stocks of finished goods and in work in progress	-23,328	11,306
Materials and services		
Materials and supplies		
Purchases during the financial year	903,268	736,734
Change in inventories (increase - / decrease +)	-9,112	3,505
External services	7,918	8,490
Total	902,075	748,729
Other operating expenses		
Rents	10,710	10,362
Intercompany tolling manufacturing charges	226,190	217,166
Other intercompany charges	140,066	128,763
Freights and delivery expenses	115,580	104,117
External services	16,111	18,344
Other operating expenses [1]	64,261	44,725
Total	572,917	523,477
Total expenses	1,451,664	1,283,512

1) In 2021, the operating expenses included a net increase of EUR 18,948 thousand in the obligatory provisions (a change of EUR 0 in personnel expenses and an increase of EUR 18,948 thousand in other expenses). In 2020, the operating expenses included a net increase of EUR 13,292 thousand in the obligatory provisions (a decrease of EUR 568 thousand in personnel expenses and an increase EUR 13,860 thousand in other expenses).

AUDIT FEES AND SERVICES

Thousand EUR	2021	2020
Audit fees	455	480
Tax services	129	79
Other services	51	151
Total	635	710

Ernst & Young Oy acts as the principal auditor for Kemira Oyj.

5. PERSONNEL EXPENSES AND NUMBER OF PERSONNEL

Thousand EUR	2021	2020
Emoluments of the Board of Directors, the CEOs and his Deputy [1)]	2,449	2,703
Other wages and salaries	43,699	42,631
Pension expenses [2)]	3,637	6,355
Other personnel expenses	1,161	445
Total	50,947	52,133

In 2019 , salaries and bonuses totaled EUR 38,033 thousand.

1) In 2021, the emolument of the Kemira Oyj's CEO was EUR 1,537 thousand (1,713) including bonuses and share-based payments of EUR 813 thousand (999). The emolument of the Kemira Oyj's Deputy CEO was EUR 444 thousand (501) including bonuses and share-based payments of EUR 257 thousand (316).

2) In 2021, the pension expenses includes a return of EUR 3.0 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	2021	2020
Pulp & Paper segment	104	103
Industry & Water segment	36	35
Other, of which	364	360
R&D and Technology	172	166
Total	504	498
Average number of personnel	502	501

6. DEPRECIATION, AMORTIZATION AND IMPAIRMENTS

Thousand EUR	2021	2020
Depreciation according to plan and impairment		
Intangible rights	15,466	13,689
Depreciation of goodwill	6	0
Other intangible assets	2,062	3,362
Buildings and constructions	539	613
Machinery and equipment	7,493	8,326
Other tangible assets	0	33
Total	25,568	26,024

7. FINANCE INCOME AND EXPENSES

Thousand EUR	2021	2020
Dividend income		
From Group companies	5,876	44,294
Total	5,876	44,295
Other interest and finance income		
Interest income from Group companies	21,349	16,786
Interest income from others	736	372
Other finance income from Group companies	638	534
Other finance income from others	6	5
Exchange gains from Group companies (net)	37,152	0
Exchange gains from others (net)	0	15,276
Total	59,880	32,973
Total finance income	65,756	77,268
Change in value on non-current assets		
Group companies	0	-240,000
Others	0	1,396
Total	0	-238,604
Interest expenses and other finance expenses		
Interest expenses to Group companies	-217	-694
Interest expenses to others	-16,768	-14,693
Other finance expenses to Group companies	0	-968
Other finance expenses to others	-2,493	-2,446
Exchange losses from Group companies (net)	0	-25,782
Exchange losses from others (net)	-19,823	0
Total	-39,301	-44,582
Total finance expenses	-39,301	-283,186
Total finance income and expenses	26,455	-205,918

Thousand EUR	2021	2020
Exchange gains and losses		
Realized	-9,972	8,626
Unrealized	27,300	-19,132
Total	17,329	-10,506

8. APPROPRIATIONS

Thousand EUR	2021	2020
Change in accumulated depreciation difference (increase - / decrease +)		
Intangible rights	384	-1,259
Other intangible assets	-456	844
Goodwill	-2	0
Buildings and structures	-612	482
Machinery and equipment	-3,512	-418
Other tangible assets	-3	10
Total	-4,202	-341
Group contribution		
Group contributions given	-70,500	-94,500
Total	-70,500	-94,500
Total appropriations	-74,702	-94,841

9. INCOME TAXES

Thousand EUR	2021	2020
Income taxes on ordinary activities	-1,866	-1,029
Income taxes for prior years	-476	343
Change in deferred taxes	3,634	2,440
Other taxes and parafiscal charges	-1,171	-1,088
Total	121	667

10. INTANGIBLE ASSETS

2021, Thousand EUR	Intangible rights	Goodwill	Advance payments and construction in progress	Other intangible assets	Total
Acquisition cost on Jan 1	266,555	7,263	2,274	39,878	315,970
Additions	6,484	25,100	2,874	0	34,459
Decreases	-96	0	0	0	-96
Transfers	2,088	0	-2,088	0	0
Acquisition cost on Dec 31	275,030	32,364	3,061	39,878	350,333
Accumulated amortization on Jan 1	-229,237	-7,263	0	-37,128	-273,628
Accumulated amortization relating to decreases	29	0	0	0	29
Amortization during the financial year	-11,821	-3,584	0	-2,062	-17,467
Accumulated amortization on Dec 31	-241,030	-10,847	0	-39,191	-291,067
Net book value on Dec 31	34,000	21,517	3,061	687	59,266

2020, Thousand EUR	Intangible rights	Goodwill	Advance payments and construction in progress	Other intangible assets	Total
Acquisition cost on Jan 1	260,605	7,263	2,634	39,878	310,380
Additions	6,367	0	2,220	0	8,587
Decreases	-3,007	0	0	0	-3,007
Transfers	2,590	0	-2,580	0	10
Acquisition cost on Dec 31	266,555	7,263	2,274	39,878	315,970
Accumulated amortization on Jan 1	-218,556	-7,263	0	-33,766	-259,584
Accumulated amortization relating to decreases	1,643	0	0	0	1,643
Amortization during the financial year	-12,324	0	0	-3,362	-15,687
Accumulated amortization on Dec 31	-229,237	-7,263	0	-37,128	-273,628
Net book value on Dec 31	37,318	0	2,274	2,750	42,342

11. TANGIBLE ASSETS

2021, 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	1,071	9,959	87,750	343	11,415	110,539
Additions	0	739	5,122	0	1,586	7,447
Decreases	0	-332	-640	0	0	-973
Transfers	0	5,144	5,897	0	-11,041	0
Acquisition cost on Dec 31	1,071	15,509	98,130	343	1,960	117,014
Accumulated depreciation on Jan 1	-110	-6,726	-69,156	-340	0	-76,332
Accumulated depreciation relating to decreases	0	282	298	0	0	580
Depreciation during the financial year	0	-489	-7,301	0	0	-7,790
Accumulated depreciation on Dec 31	-110	-6,933	-76,159	-341	0	-83,543
Net book value at 31 Dec	962	8,576	21,970	3	1,960	33,471

2020, 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	1,051	13,016	83,015	553	8,640	106,276
Additions	0	179	2,558	0	7,490	10,227
Decreases	0	-3,760	-1,984	-210	0	-5,954
Transfers	20	524	4,161	0	-4,716	-10
Acquisition cost on Dec 31	1,071	9,959	87,750	343	11,415	110,539
Accumulated depreciation on Jan 1	-110	-8,921	-62,411	-517	0	-71,959
Accumulated depreciation relating to decreases	0	2,716	1,427	184	0	4,327
Depreciation during the financial year	0	-521	-8,172	-8	0	-8,700
Accumulated depreciation on Dec 31	-110	-6,726	-69,156	-340	0	-76,332
Net book value on Dec 31	962	3,233	18,594	3	11,415	34,207

12. INVESTMENTS

2021, Thousand EUR	Holdings in Group companies	Receivables from Group companies	Other shares and holdings	Other receivables	Total
Net book value on Jan 1	1,228,799	618,587	102,108	6,127	1,955,622
Additions	0	69,106	1,000	0	70,106
Decreases	-179,296	-291,146	-3,500	0	-473,943
Net book value on Dec 31	1,049,503	396,546	99,608	6,127	1,551,785

2020, Thousand EUR	Holdings in Group companies	Receivables from Group companies	Other shares and holdings	Other receivables	Total
Net book value on Jan 1	1,468,799	414,761	100,712	0	1,984,272
Additions	0	211,514	0	6,127	217,641
Decreases	0	-7,688	0	0	-7,688
Revaluations	0	0	1,396	0	1,396
Impairments	-240,000	0	0	0	-240,000
Net book value on Dec 31	1,228,799	618,587	102,108	6,127	1,955,622

13. INVENTORIES

Thousand EUR	2021	2020
Raw materials and consumables	37,573	28,461
Finished goods	90,731	67,403
Advance payments	11,700	3,761
Total	140,004	99,626

14. RECEIVABLES

Thousand EUR	2021	2020
Non-current receivables		
Loan and other receivables		
Loan and other receivables from others	6,488	3,295
Total	6,488	3,295
Deferred tax assets		
From appropriations	473	949
From reservations	10,685	6,556
From foreign currency and electricity hedging	304	0
From revaluations	4,285	4,285
From other deferred tax receivables	1,068	1,086
Total	16,814	12,877
Total non-current receivables	23,302	16,172
Current receivables		
Receivables from Group companies		
Trade receivables	68,501	46,215
Loan receivables	368,724	52,164
Advances paid	18,836	18,836
Other current receivables	42	268
Prepayments and accrued income	12,060	6,529
Total	468,164	124,013

Thousand EUR	2021	2020
Accrued income from others		
Trade receivables	116,386	88,330
Loan receivables	0	6
Advances paid	41	467
Other current receivables	7,078	4,753
Prepayments and accrued income	32,010	17,782
Total	155,515	111,339
Total current receivables	623,679	235,352
Total receivables	646,981	251,524
Accrued income from others		
Interest	-40	-162
Taxes	73	678
Exchange rate differences	21,149	12,001
Other	10,829	5,265
Total	32,010	17,782

15. CAPITAL AND RESERVES

Thousand EUR	2021	2020
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	5,216	5,749
Cash flow hedges	14,170	-532
Fair value reserve on Dec 31	19,387	5,216
Total restricted equity on Dec 31	499,026	484,856
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	365,658	648,985
Dividend distributions	-88,809	-85,635
Share-based incentive plan		
Shares given	1,465	1,965
Shares returned	-19	-55
Retained earnings on Dec 31	278,295	565,261
Profit (loss) for the financial period	-2,851	-199,603
Total unrestricted equity on Dec 31	475,407	565,622
Total capital and reserves on Dec 31	974,433	1,050,477
Total distributable funds on Dec 31	475,407	565,622

Change in treasury shares

Thousand	EUR	Number of shares
Acquisition value / number on Jan 1, 2021	16,279	2,418
Change	-1,369	-203
Acquisition value/number on Dec 31, 2021	14,911	2,215

16. ACCUMULATED APPROPRIATIONS

Thousand EUR	2021	2020
Appropriations		
Accumulated depreciation difference	9,795	5,593
Deferred tax liabilities on accumulated appropriations	1,959	1,119

17. OBLIGATORY PROVISIONS

Thousand EUR	2021	2020
Non-current provisions		
Pension provisions	5,338	5,432
Environmental provisions	15,414	16,182
Restructuring	26,700	0
Total non-current provisions	47,452	21,615
Current provisions		
Environmental provisions	5,462	1,400
Restructuring	4,153	15,198
Total current provisions	9,615	16,598
Total provisions	57,066	38,213
Change in obligatory provisions		
Obligatory provisions on Jan 1	38,213	24,922
Utilised during the year	-12,982	-670
Cancellation of unused reservations	-998	-339
Increase during the year	32,833	14,300
Obligatory provisions on Dec 31	57,066	38,213

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

18. NON-CURRENT LIABILITIES

Thousand EUR	2021	2020
Loans from financial institutions	279,891	276,819
Corporate bonds	397,258	349,130
Other liabilities	0	2,721
Total	677,148	628,670
Maturity later than five years		
Corporate bonds	200,000	0
Total	200,000	0
Deferred tax liabilities		
From foreign currency and electricity hedging	5,151	1,304
Total	5,151	1,304
Total non-current liabilities	682,299	629,974

19. CURRENT LIABILITIES

Thousand EUR	2021	2020
Liabilities to Group companies		
Loan liabilities	5,843	188,620
Prepayments received	0	219
Trade payables	137,067	45,355
Other liabilities	395,643	321,648
Accrued expenses	40	246
Total	538,594	556,087
Liabilities to others		
Corporate Bonds	52,750	0
Commercial papers	0	49,956
Prepayments received	1,536	1,091
Trade payables	121,156	82,870
Other liabilities	7,528	8,469
Accrued expenses	60,455	57,798
Total	243,425	200,184
Total current liabilities	782,019	756,271
Accrued expenses and deferred income		
Personnel expenses	16,565	18,026
Interest expenses and exchange rate differences	13,650	11,955
Cost accruals	26,658	20,171
Other	3,582	7,646
Total	60,455	57,798

20. DERIVATIVES

	2021	2020
Nominal values, thousand EUR	**Total**	**Total**
Currency derivatives		
Forward contracts	520,161	407,665
of which cash flow hedges	62,044	64,271
Other derivatives		
Electricity contracts, bought (MWh)	1,518,286	2,201,498
Electricity forward contracts	1,518,286	2,201,498
of which cash flow hedges	1,518,286	2,201,498

		2021	
Fair values, thousand EUR	**Positive**	**Negative**	**Net**
Currency derivatives			
Forward contracts	2,752	8,554	-5,802
of which cash flow hedges	144	1,577	-1,434
Other derivatives			
Electricity forward contracts, bought [1)]	25,753	—	25,753
of which cash flow hedges	25,753	—	25,753

1) Includes fair value of electricity forward contracts of EUR 6,088 thousand maturing after the year 2022 (3,195 and -2,721).

		2020	
Fair values, thousand EUR	**Positive**	**Negative**	**Net**
Currency derivatives			
Forward contracts	6,624	4,836	1,787
of which cash flow hedges	2,502	365	2,137
Other derivatives			
Electricity forward contracts, bought	8,598	4,618	3,980
of which cash flow hedges	8,598	4,618	3,980

21. COLLATERAL AND CONTINGENT LIABILITIES

Thousand EUR	2021	2020
Given guarantees		
On behalf of own commitments		
Business related delivery-, environmental and other guarantees	15,545	15,131
On behalf of companies belonging to the same Group		
Business and financing guarantees	522,446	451,750
On behalf of associated companies		
Business and financing guarantees	12,467	12,576
On behalf of others		
Guarantees	1,543	1,782
Other obligations		
Loan commitments	16,339	16,339
Rent liabilities		
Maturity within one year	2,221	2,442
Maturity after one year	7,511	6,093
Total	9,732	8,535
Leasing liabilities		
Maturity within one year	2,052	2,145
Maturity after one year	3,354	1,905
Total	5,407	4,050
Pledges given		
On behalf of own commitments	359	240

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 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

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, 2021, Kemira Oyj's distributable funds are EUR 475,407,339 of which the net profit for the period amounts to EUR -2,851,325.

The Board of Directors proposes to the Annual General Meeting to be held on March 24, 2022 that a dividend of EUR 0.58 per share 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 153,127,484 shares are held outside the company, the total dividends paid would amount to EUR 88,813,941. The distributable funds of EUR 386,593,398 to be retained as equity.

There have been no material changes in the company's financial position since December 31, 2021. The liquidity of the company remains good, and the proposed dividend payment does not risk the solvency of the company.

Helsinki, February 10, 2022

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Paasikivi, Jari
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Jari Paasikivi Feb 10, 2022
Chairman

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Matti Kähkönen Feb 10, 2022
Vice Chairman

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Wolfgang Büchele Feb 10, 2022

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Cunningham, Shirley
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Shirley Cunningham Feb 10, 2022

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Werner Fuhrmann Feb 10, 2022

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Lappalainen, Timo
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Timo Lappalainen Feb 10, 2022

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Kristian Pullola Feb 10, 2022

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Rosendal, Jari
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Jari Rosendal Feb 10, 2022
CEO

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 the IFRS 16 Leases standard on January 1, 2019. The comparative figures were not restated on the date of transition to IFRS 16. In 2019, the key figures (except revenue and capital expenditure) of the 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.

	2021	2020	2019	2018	2017
INCOME STATEMENT AND PROFITABILITY					
Revenue, EUR million	2,674	2,427	2,659	2,593	2,486
Operative EBITDA, EUR million	426	435	410	323	311
Operative EBITDA, %	15.9	17.9	15.4	12.5	12.5
EBITDA, EUR million	373	413	382	315	283
EBITDA, %	14.0	17.0	14.4	12.1	11.4
Operative EBIT, EUR million	225	238	224	174	170
Operative EBIT, %	8.4	9.8	8.4	6.7	6.9
Operating profit (EBIT), EUR million	170	216	194	148	141
Operating profit (EBIT), %	6.4	8.9	7.3	5.7	5.7
Finance costs (net), EUR million	27	35	40	25	29
% of revenue	1.0	1.4	1.5	1.0	1.2
Profit before tax, EUR million	143	181	155	123	113
% of revenue	5.4	7.5	5.8	4.8	4.5
Net profit for the period (attributable to equity owners of the parent company), EUR million	108	131	110	89	79
% of revenue	4.0	5.4	4.1	3.4	3.2
Return on investment (ROI), %	7.2	9.1	8.4	7.0	6.5
Return of equity (ROE), %	8.6	10.9	9.2	7.6	6.7
Capital employed, EUR million [1)]	1,995	1,965	1,998	1,781	1,763
Operative return on capital employed (ROCE), % [1)]	11.3	12.1	11.2	9.8	9.7
Return on capital employed (ROCE), % [1)]	8.5	11.0	9.7	8.3	8.0
Research and development expenses, EUR million	28	29	30	30	30
% of revenue	1.1	1.2	1.1	1.2	1.2
Organic growth, %	11	-7	0	7	6

	2021	2020	2019	2018	2017
CASH FLOW					
Net cash generated from operating activities, EUR million	220	375	386	210	205
Proceeds from sale of subsidiaries and property, plant and equipment and intangible assets, EUR million	7	2	8	7	3
Capital expenditure, EUR million	170	198	204	194	190
% of revenue	6.3	8.2	7.7	7.5	7.6
Capital expenditure excl. acquisitions, EUR million	169	196	201	150	190
% of revenue	6.3	8.1	7.6	5.8	7.6
Cash flow after investing activities, EUR million	57	173	190	29	13
BALANCE SHEET AND SOLVENCY					
Non-current assets, EUR million	2,155	2,018	2,090	1,901	1,842
Shareholders' equity (Equity attributable to equity owners of the parent company), EUR million	1,329	1,192	1,218	1,190	1,159
Total equity including non-controlling interests, EUR million	1,343	1,205	1,231	1,203	1,173
Total liabilities, EUR million	1,797	1,590	1,660	1,561	1,502
Total assets, EUR million	3,139	2,796	2,891	2,764	2,675
Net working capital	287	197	211	260	211
Interest-bearing net liabilities, EUR million	850	759	811	741	694
Equity ratio, %	43	43	43	44	44
Gearing, %	63	63	66	62	59
Interest-bearing net liabilities per EBITDA	2.3	1.8	2.1	2.4	2.5

	2021	2020	2019	2018	2017
PERSONNEL					
Personnel at period-end	4,926	4,921	5,062	4,915	4,732
Personnel (average)	4,947	5,038	5,020	4,810	4,781
of whom in Finland	784	790	812	821	822
Wages and salaries, EUR million	288	303	304	278	284
EXCHANGE RATES					
Key exchange rates on Dec 31					
USD	1.133	1.227	1.123	1.145	1.199
CAD	1.439	1.563	1.460	1.561	1.504
SEK	10.250	10.034	10.447	10.255	9.844
CNY	7.195	8.023	7.821	7.875	7.804
BRL	6.310	6.374	4.516	4.444	3.973
PER SHARE FIGURES					
Earnings per share (EPS), basic, EUR [2)]	0.71	0.86	0.72	0.58	0.52
Earnings per share (EPS), diluted, EUR [2)]	0.70	0.86	0.72	0.58	0.52
Net cash generated from operating activities per share, EUR [2)]	1.44	2.45	2.53	1.38	1.35
Dividend per share, EUR [2) 3)]	0.58	0.58	0.56	0.53	0.53
Dividend payout ratio, % [2) 3)]	82.2	67.5	77.6	90.7	102.7
Dividend yield, % [2) 3)]	4.4	4.5	4.2	5.4	4.6
Equity per share, EUR [2)]	8.68	7.80	7.98	7.80	7.61
Price per earnings per share (P/E ratio) [2)]	18.88	15.07	18.37	16.85	22.29
Price per equity per share [2)]	1.54	1.66	1.66	1.26	1.51
Price per cash flow from operations per share [2)]	9.27	5.28	5.24	7.14	8.54
Dividend paid, EUR million [3)]	88.8	88.7	85.5	80.8	80.7

	2021	2020	2019	2018	2017
SHARE PRICE AND TRADING					
Share price, high, EUR	14.66	14.24	14.99	12.03	12.44
Share price, low, EUR	12.64	8.02	9.77	9.34	10.33
Share price, average, EUR	13.67	11.55	12.56	11.00	11.47
Share price on Dec 31, EUR	13.33	12.94	13.26	9.85	11.50
Number of shares traded (1,000) 4)	57,478	75,885	53,048	43,837	54,169
% on number of shares	38	50	35	29	36
Market capitalization on Dec 31, EUR million 2)	2,041	1,979	2,024	1,502	1,752
NUMBER OF SHARES AND SHARE CAPITAL					
Average number of shares, basic (1,000) 2)	153,092	152,879	152,630	152,484	152,359
Average number of shares, diluted (1,000) 2)	153,785	153,373	153,071	152,768	152,594
Number of shares on Dec 31, basic (1,000) 2)	153,127	152,924	152,649	152,510	152,354
Number of shares on Dec 31, diluted (1,000) 2)	154,068	153,744	153,385	152,927	152,512
Increase (+) / decrease (-) in number of shares outstanding (1,000)	203	275	139	156	-14
Share capital, EUR million	221.8	221.8	221.8	221.8	221.8

1) 12-month rolling average
2) Number of shares outstanding, excluding the number of treasury shares.
3) The dividend for 2021 is the Board of Directors' proposal to the Annual General Meeting.
4) Shares traded in Nasdaq Helsinki only

Definition of key figures

FINANCIAL FIGURES

KEY FIGURES		DEFINITION OF KEY FIGURES	PURPOSE OF KEY FIGURES
EBITDA	=	Operating profit (EBIT) + depreciation and amortization + impairments	EBITDA describes the profitability of a business when depreciation, amortization and impairments are added to EBIT. The key figure is used to monitor the development of business results.
OPERATIVE EBITDA	=	Operating profit (EBIT) + depreciation and amortization + impairments +/- items affecting comparability	Operative EBITDA describes the profitability of a business when depreciation, amortization and impairments are added to EBIT. The key figure is used to monitor the development of business results. The key figure is calculated by adjusting the items affecting from EBITDA, which improves the comparability of operating profitability between different periods.
ITEMS AFFECTING COMPARABILITY [1)]	=	Restructuring and streamlining programs + transaction and integration expenses in acquisitions + divestment of businesses and other disposals + other items	Used as a component in the calculation of operative EBITDA and operative EBIT.
EBIT	=	Revenue + other operating income - operating expenses - depreciation and amortization - impairments + share of the results of associates	EBIT is used to monitor the development of business results. The key figure describes the profitability of the business before financial items and taxes.
OPERATIVE EBIT	=	Operating profit (EBIT) +/- items affecting comparability	Operative EBIT is used to monitor the development of business results. The key figure describes the profitability of the business before financial items and taxes. The key figure is calculated by adjusting the items affecting operating comparability from operating profit, which improves the comparability of operating profitability between different periods.
INTEREST-BEARING NET LIABILITIES	=	Interest-bearing liabilities - cash and cash equivalents	Interest-bearing liabilities is used to monitor the Group's gearing.
EQUITY RATIO (%)	= 100 x	$\frac{\text{Total equity}}{\text{Total assets - prepayments received}}$	Equity ratio (%) indicates what proportion of the assets is covered by equity.
GEARING (%)	= 100 x	$\frac{\text{Interest-bearing net liabilities}}{\text{Total equity}}$	Gearing (%) measures the ratio of interest-bearing net liabilities to equity.
RETURN ON INVESTMENTS (ROI) (%)	= 100 x	$\frac{\text{Profit before tax + interest expenses + other financial expenses}}{\text{Total assets - non-interest-bearing liabilities}^{2)}}$	Return on investment (%) measures how efficiently invested capital is used.

KEY FIGURES		DEFINITION OF KEY FIGURES	PURPOSE OF KEY FIGURES
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]	Return on equity (%) is used to measure how effectively the equity owned by the owners of the parent company is used.
RETURN ON CAPITAL EMPLOYED (ROCE) (%)	= 100 x	Operating profit (EBIT) [3] / Capital employed [4]	Return on capital employed (%) is used to measure how efficiently capital is employed.
OPERATIVE RETURN ON CAPITAL EMPLOYED (OPERATIVE ROCE) (%)	= 100 x	Operating profit (EBIT) [3] / Capital employed [4]	Operative return on capital employed (%) is used to measure how efficiently capital is employed.
CASH FLOW AFTER INVESTING ACTIVITIES	=	Net cash generated from operating activities + net cash used in investing activities	Cash flow after investments is a key figure that describes the cash flow from operating activities after investments. This is free cash flow that remains, for example, in the payment of dividends and liabilities.
INTEREST-BEARING NET LIABILITIES / EBITDA	=	Interest-bearing net liabilities / Operating profit (EBIT) + depreciation and amortization + impairments	Interest-bearing net liabilities / EBITDA ratio measures the Group's capital structure. The key figure describes how long it would take to pay interest-bearing net liabilities at the current level of profitability if the EBITDA in its entirety were used to repay the debt.
NET FINANCIAL COST (%)	= 100 x	Finance costs, net - dividend income +/- exchange rate differences / Interest-bearing net liabilities [2]	Net financial cost (%) describes the financial expense structure and the key figure can be compared to the existing average interest rate level.
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	Net working capital is the amount of capital tied up in business operations. It describes the amount of cash needed to run the Group's day-to-day operations.
CAPITAL EMPLOYED	=	Property, plant and equipment + right-of-use assets + intangible assets + net working capital + investments in associates	Capital employed describes the capital committed to the Group's operations (e.g. production facilities), which is a premise for the manufacture of the Group's products for sale. Restricted capital is used as a component in calculating the return on capital employed.
CAPITAL EXPENDITURE	=	Property, plant and equipment + intangible assets + other shares + investments in associates	Investments excluding acquisitions are cash used on the acquisition of non-current assets. The key figure is part of the cash flow statement.
CAPITAL EXPENDITURE EXCL. ACQUISITIONS	=	Property, plant and equipment + intangible assets + other shares + investments in associates - acquisitions	Investments excluding acquisitions are cash used on the acquisition of non-current assets, excluding acquisitions. The key figure is part of the cash flow statement.

KEY FIGURES		DEFINITION OF KEY FIGURES	PURPOSE OF KEY FIGURES
ORGANIC GROWTH (%)	=	Revenue growth in local currencies, excluding acquisitions and divestments	Organic growth describes revenue growth in local currencies excluding acquisitions and divestments.
INTRINSIC VALUE	=	Operative EBITDA x 8 - interest-bearing net liabilities	Intrinsic value is used as a remuneration criteria in the Group's share-based payments incentive plans.

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 figure at the end of the review period.
4) 12-month rolling average

PER SHARE FIGURES

KEY FIGURES		DEFINITION OF KEY 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), basic
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

KEY FIGURES		DEFINITION OF KEY FIGURES
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), basic
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 to IFRS figures

					2021					2020
EUR million	**1-3**	**4-6**	**7-9**	**10-12**	**Total**	**1-3**	**4-6**	**7-9**	**10-12**	**Total**
ITEMS AFFECTING COMPARABILITY IN EBITDA AND EBIT										
Operative EBITDA										
Pulp & Paper	62.9	57.8	63.5	60.5	244.7	60.2	65.6	65.5	68.9	260.2
Industry & Water	41.7	49.5	52.3	37.3	180.8	48.2	40.0	47.6	39.0	174.8
Total	104.6	107.3	115.9	97.8	425.5	108.5	105.7	113.0	107.9	435.1
Total items affecting comparability	-1.6	-16.2	-6.3	-28.3	-52.4	-0.1	-1.9	-3.2	-16.7	-21.8
EBITDA	103.0	91.1	109.5	69.5	373.2	108.4	103.8	109.8	91.2	413.2
Operative EBIT										
Pulp & Paper	33.2	28.1	32.5	30.4	124.3	30.1	35.7	34.8	37.5	138.0
Industry & Water	22.5	30.1	31.9	16.6	101.2	30.7	21.9	27.5	19.5	99.7
Total	55.7	58.2	64.5	47.0	225.4	60.8	57.6	62.3	57.0	237.7
Total items affecting comparability	-1.6	-16.3	-8.0	-29.5	-55.4	-0.1	-1.9	-3.2	-16.7	-21.8
EBIT	54.2	41.9	56.4	17.5	170.1	60.7	55.7	59.1	40.3	215.9
Operative EBITDA	104.6	107.3	115.9	97.8	425.5	108.5	105.7	113.0	107.9	435.1
Restructuring and streamlining programs	-1.4	-4.7	-6.2	-0.1	-12.3	0.0	-1.9	-3.2	-3.4	-8.4
Transaction and integration expenses in acquisition	0.0	0.0	0.0	-0.1	-0.1	0.0	0.0	0.0	0.0	0.0
Divestment of businesses and other disposals	-0.2	0.0	0.0	-28.1	-28.3	0.0	0.0	0.0	1.0	1.0
Other items	0.0	-11.5	-0.1	0.0	-11.6	-0.1	0.0	0.0	-14.3	-14.4
Total items affecting comparability	-1.6	-16.2	-6.3	-28.3	-52.4	-0.1	-1.9	-3.2	-16.7	-21.8
EBITDA	103.0	91.1	109.5	69.5	373.2	108.4	103.8	109.8	91.2	413.2
Operative EBIT	55.7	58.2	64.5	47.0	225.4	60.8	57.6	62.3	57.0	237.7
Total items affecting comparability in EBITDA	-1.6	-16.2	-6.3	-28.3	-52.4	-0.1	-1.9	-3.2	-16.7	-21.8
Items affecting comparability in depreciation, amortization and impairments	0.0	-0.1	-1.7	-1.2	-3.0	0.0	0.0	0.0	0.0	0.0
Operating profit (EBIT)	54.2	41.9	56.4	17.5	170.1	60.7	55.7	59.1	40.3	215.9

EUR million	1-3	4-6	7-9	10-12	2021 Total	1-3	4-6	7-9	10-12	2020 Total
ROCE AND OPERATIVE ROCE										
Operative EBIT	55.7	58.2	64.5	47.0	225.4	60.8	57.6	62.3	57.0	237.7
Operating profit (EBIT)	54.2	41.9	56.4	17.5	170.1	60.7	55.7	59.1	40.3	215.9
Capital employed [1]	1,958.8	1,956.1	1,966.7	1,995.0	1,995.0	1,995.7	1,993.5	1,977.2	1,964.9	1,964.9
Operative ROCE, %	11.9	11.9	12.0	11.3	11.3	11.8	11.6	11.3	12.1	12.1
ROCE, %	10.7	10.0	9.8	8.5	8.5	10.4	10.4	10.0	11.0	11.0
NET WORKING CAPITAL										
Inventories	268.8	280.6	324.3	352.1	352.1	265.2	276.3	256.4	242.3	242.3
Trade receivables and other receivables	378.0	406.8	430.7	475.2	475.2	386.6	340.3	341.4	362.0	362.0
Excluding financing items in other receivables	-9.9	-13.6	-29.1	-35.4	-35.4	-9.1	-6.4	-7.0	-16.9	-16.9
Trade payables and other liabilities	505.0	451.8	510.4	538.3	538.3	456.2	376.5	366.6	422.2	422.2
Excluding financing items in other liabilities	-121.9	-70.0	-72.3	-33.5	-33.5	-49.2	-30.1	-24.8	-31.8	-31.8
Net working capital	253.8	292.0	287.8	287.2	287.2	235.6	263.9	248.9	197.0	197.0
INTEREST-BEARING NET LIABILITIES										
Non-current interest-bearing liabilities	819.1	773.4	778.3	776.9	776.9	738.1	732.0	724.1	724.1	724.1
Current interest-bearing liabilities	160.8	203.1	206.2	215.3	215.3	247.8	245.4	247.6	194.7	194.7
Interest-bearing liabilities	979.9	976.6	984.5	992.2	992.2	985.9	977.4	971.7	918.8	918.8
Cash and cash equivalents	203.0	145.3	184.4	142.4	142.4	169.8	133.6	185.7	159.5	159.5
Interest-bearing net liabilities	776.9	831.3	800.1	849.8	849.8	816.0	843.8	786.1	759.3	759.3

1) 12-month rolling average

Quarterly Earning Performance

EUR million	1-3	4-6	7-9	10-12	2021 Total	1-3	4-6	7-9	10-12	2020 Total
Revenue										
Pulp & Paper	369.5	378.4	391.3	420.4	1,559.6	378.5	357.0	352.2	370.0	1,457.6
Industry & Water	236.6	279.1	301.4	297.8	1,114.8	263.6	225.9	244.4	235.6	969.5
Total	606.1	657.5	692.7	718.2	2,674.4	642.0	582.9	596.7	605.6	2,427.2
EBITDA [1]										
Pulp & Paper	62.2	42.2	62.3	31.6	198.3	60.2	65.7	62.3	52.1	240.2
Industry & Water	40.8	48.9	47.3	37.9	174.9	48.2	38.1	47.6	39.1	173.0
Total	103.0	91.1	109.5	69.5	373.2	108.4	103.8	109.8	91.2	413.2
EBIT [1]										
Pulp & Paper	32.4	12.4	31.2	1.6	77.7	30.1	35.7	31.5	20.7	118.0
Industry & Water	21.7	29.5	25.2	16.0	92.4	30.7	20.0	27.6	19.6	97.8
Total	54.2	41.9	56.4	17.5	170.1	60.7	55.7	59.1	40.3	215.9
Finance costs, net	-1.6	-8.5	-7.8	-8.9	-26.7	-8.9	-9.0	-7.5	-9.6	-34.9
Profit before tax	52.6	33.4	48.7	8.7	143.3	51.9	46.7	51.6	30.7	181.0
Income taxes	-11.8	-8.5	-9.1	1.2	-28.2	-12.3	-11.2	-12.6	-7.0	-43.0
Net profit for the period	40.8	24.9	39.6	9.8	115.2	39.6	35.5	39.0	23.8	138.0
Net profit attributable to										
Equity owners of the parent	39.0	23.0	37.7	8.3	108.1	37.8	34.1	37.3	22.1	131.3
Non-controlling interests	1.8	1.9	1.9	1.5	7.1	1.8	1.5	1.7	1.7	6.7
Net profit for the period	40.8	24.9	39.6	9.8	115.2	39.6	35.5	39.0	23.8	138.0
Earning per share, basic, EUR	0.25	0.15	0.25	0.05	0.71	0.25	0.14	0.24	0.14	0.86
Earning per share, diluted, EUR	0.25	0.15	0.25	0.05	0.70	0.25	0.14	0.24	0.14	0.86

1) Includes items affecting comparability.

Shares and shareholders

SHARES AND SHARE CAPITAL

On December 31, 2021, 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.

SHAREHOLDERS

At the end of December 2021, Kemira Oyj had 49,484 registered shareholders (44,311 on December 31, 2020). Non-Finnish shareholders held 28.4% of the shares (28.6% on December 31, 2020), including nominee-registered holdings. Households owned 19.8% of the shares (18.6% on December 31, 2020). Kemira held 2,215,073 treasury shares (2,418,440 on December 31, 2020), representing 1.4% (1.6% on December 31, 2020) 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 3% from the beginning of the year and closed at EUR 13.33 on the Nasdaq Helsinki at the end of December 2021 (12.94 on December 31, 2020). The shares registered a high of EUR 14.66 and a low of EUR 12.64 in January–December 2021, and the average share price was EUR 13.67. The company's market capitalization, excluding treasury shares, was EUR 2,041 million at the end of December 2021 (1,979 December 31, 2020).

In January–December 2021, Kemira Oyj's share trading turnover on the Nasdaq Helsinki was EUR 787 million (EUR 857 million in January–December 2020). The average daily trading volume was 228,087 shares (301,131 in January–December 2020). The total volume of Kemira Oyj's share trading in January–December 2021 was 72 million shares (93 million shares in January–December 2020), 20% (19% in January–December 2020) of which was executed on other trading platforms (e.g. Turquoise, CBOE DXE). 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, 2021, Kemira Oyj's distributable funds totaled EUR 475,407,339, of which net profit for the period was EUR -2,851,325. 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 24, 2022 that a dividend of EUR 0.58 per share, totaling EUR 89 million, be paid on the basis of the adopted balance sheet for the financial year that ended on December 31, 2021. The dividend will be paid in two installments. The first installment, of EUR 0.29 per share, will be paid to shareholders who are registered in the company's shareholder register maintained by Euroclear Finland Oy on the record date for the dividend payment: March 28, 2022. The Board of Directors proposes that the first installment of the dividend be paid out on April 7, 2022.The second installment, of EUR 0.29 per share, will be paid in November 2022. The second installment will be paid to shareholders who are 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 its meeting in October 2022. The record date is planned to be October 27, 2022, and the dividend payment date November 3, 2022 at the earliest.

Kemira's dividend policy is to pay a competitive dividend that increases over time.

BOARD AUTHORIZATIONS

The Annual General Meeting on March 24, 2021 authorized the Board of Directors to decide upon repurchase of a maximum of 5,600,000 company's own shares ("Share repurchases authorization"). This corresponds to approximately 3.6% of all shares and votes in the company. 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, 2021.

The AGM authorized the Board of Directors to decide to issue a maximum of 15,600,000 new shares (corresponding to approximately 10% of company's all shares and votes) and/or transfer a maximum of 7,800,000 company's own shares (corresponding to approximately 5% of company's all shares and votes) 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, 2022. 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 518,636 (507,488) Kemira Oyj shares on December 31, 2021 or 0.33% (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 140,800 shares (125,840) on December 31, 2021. Members of the Management Board, excluding the President and CEO and his Deputy, held a total of 223,111 shares on December 31, 2021 (197,471), representing 0.14% (0.13%) 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, 2021

	Shareholder	Number of shares	% of shares and votes
1	Oras Invest Ltd	32,000,000	20.6
2	Solidium Oy	15,782,765	10.2
3	Varma Mutual Pension Insurance Company	4,652,678	3.0
4	Ilmarinen Mutual Pension Insurance Company	4,050,000	2.6
5	Nordea Funds	3,602,778	2.3
6	Elo Mutual Pension Insurance Company	1,787,948	1.2
7	Veritas Pension Insurance Company Ltd.	1,434,764	0.9
8	Etola Group Oy	1,000,000	0.6
9	Laakkonen Mikko Kalervo	750,000	0.5
10	Nordea Life Assurance Finland Ltd.	741,211	0.5
11	The State Pension Funds	560,000	0.4
12	Paasikivi Pekka Johannes	462,000	0.3
13	OP-Henkivakuutus Ltd.	459,209	0.3
14	Oppiva Invest Oy	398,400	0.3
15	Valio Pension Fund	379,450	0.2
	Kemira Oyj	2,215,073	1.4
	Nominee registered and foreign shareholders	44,126,192	28.4
	Others, Total	40,940,089	26.4
	Total	**155,342,557**	**100.0**

SHAREHOLDINGS BY NUMBER OF SHARES HELD ON DEC 31, 2021

Number of shares	Number of shareholders	% of shareholders	Shares total	% of shares and votes
1 - 100	17,436	35.2	887,159	0.6
101 - 500	18,896	38.2	5,070,894	3.3
501 - 1,000	6,349	12.8	4,879,535	3.1
1,001 - 5,000	5,728	11.6	11,992,241	7.7
5,001 - 10,000	624	1.3	4,476,786	2.9
10,001 - 50,000	355	0.7	6,927,666	4.5
50,001 - 100,000	44	0.1	3,215,048	2.1
100,001 - 500,000	36	0.1	7,260,752	4.7
500,001 - 1,000,000	6	0.0	4,583,838	3.0
1,000,001 -	10	0.0	106,048,638	68.3
Total	**49,484**	**100.0**	**155,342,557**	**100.0**

Information for investors

FINANCIAL REPORTS IN 2022

Kemira will publish three financial reports in 2022.

April 27, 2022: Interim report for January–March
July 15, 2022: Half-year financial report for January–June
October 25, 2022: 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.

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 under 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 Thursday, March 24, 2022 at 1.00 p.m. EET. A shareholder who on the record date of the Annual General Meeting, March 14, 2022, is registered in the company's shareholders' register maintained by Euroclear Finland Ltd, may participate in the meeting and exercise their rights as shareholders only by voting in advance and by submitting counterproposals and/or questions in advance. Shareholders or their proxy representatives are not permitted to attend the meeting in person. Registered shareholders have the possibility to follow the Annual General Meeting via a live webcast.

Registration for the Annual General Meeting will begin on February 21, 2022 and invitation and registration instructions have been published on February 11, 2022 as a stock exchange release and at Kemira's web site at ***www.kemira.com*** > Investors > Corporate Governance > Annual General Meeting > Annual General Meeting 2022.

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 99.

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, 2021: 155,342,557
Listing date: November 10, 1994

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DRAFT 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 2021. 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. - Analytical procedures over revenue transactions throughout the financial year to identify potential abnormal entries. - 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.

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 2021, the value of goodwill amounted to 514 million euro representing 16 % of the total assets and 38 % 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 and appropriateness of the disclosures given in respect of goodwill and its sensitivity.

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 2021, the value of PVO / TVO shares included in other shares amounted to 257 million euro representing 8 % of the total assets and 19 % 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.

Building a better
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Other Reporting Requirements

Information on our audit engagement

We were first appointed as auditors by the Annual General Meeting on 21 March 2019 and our appointment represents a total period of uninterrupted engagement of three years.

Other information

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

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

In connection with our audit of the financial statements, our responsibility is to read the other information identified above and, in doing so, consider whether the other information is materially inconsistent with the financial statements or our knowledge obtained in the audit, or otherwise appears to be materially misstated. With respect to 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 2022

Ernst & Young Oy
Authorized Public Accountant Firm

Mikko Rytilahti
Authorized Public Accountant