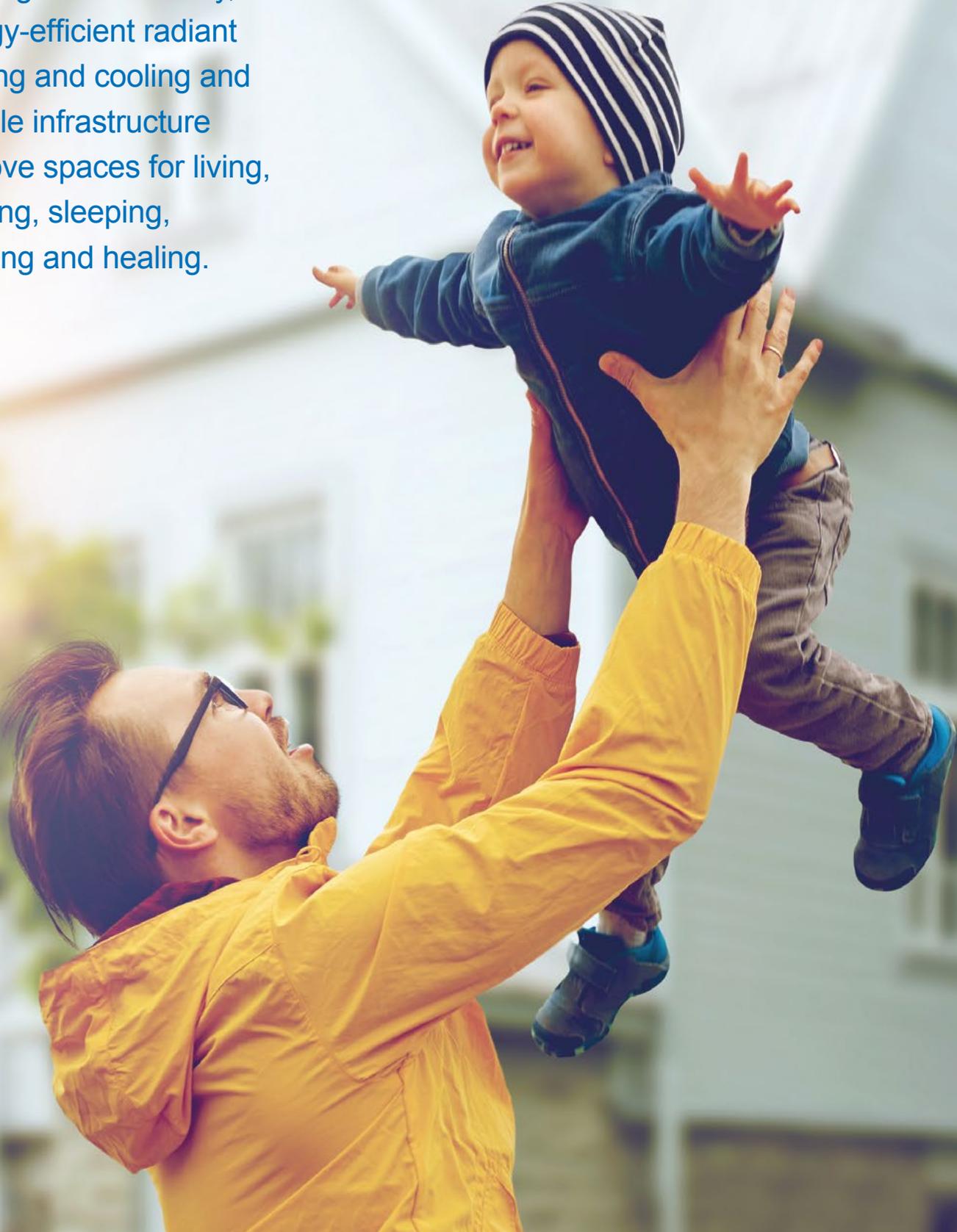


A low-angle, upward-looking photograph of several modern skyscrapers with glass facades, set against a clear blue sky. The perspective creates a sense of height and architectural scale. The buildings are rendered in shades of blue, matching the sky.

uponor

Annual report 2018

Throughout the world, we enrich people's way of life. Our solutions for safe drinking water delivery, energy-efficient radiant heating and cooling and reliable infrastructure improve spaces for living, working, sleeping, learning and healing.



Important dates in 2019

Annual General Meeting

Uponor Corporation's Annual General Meeting will be held on Monday, 18 March 2019 at 15:00 EET at the Helsinki Exhibition and Convention Centre, Messuaukio 1, Helsinki, Finland. More information on page 88.

Financial statements bulletin for 2018

13 February 08:00 EET

Record date for dividend payment

1st instalment: 20 March*

2nd instalment: 12 September*

Interim report: January–March

3 May 08:00 EET

Financial statements for 2018

13 February

Date for dividend payment

1st instalment: 27 March*

2nd instalment: 19 September*

Interim report: January–June

26 July 08:00 EET

Annual General Meeting

18 March 15:00 EET

Interim report: January–September

25 October 08:00 EET

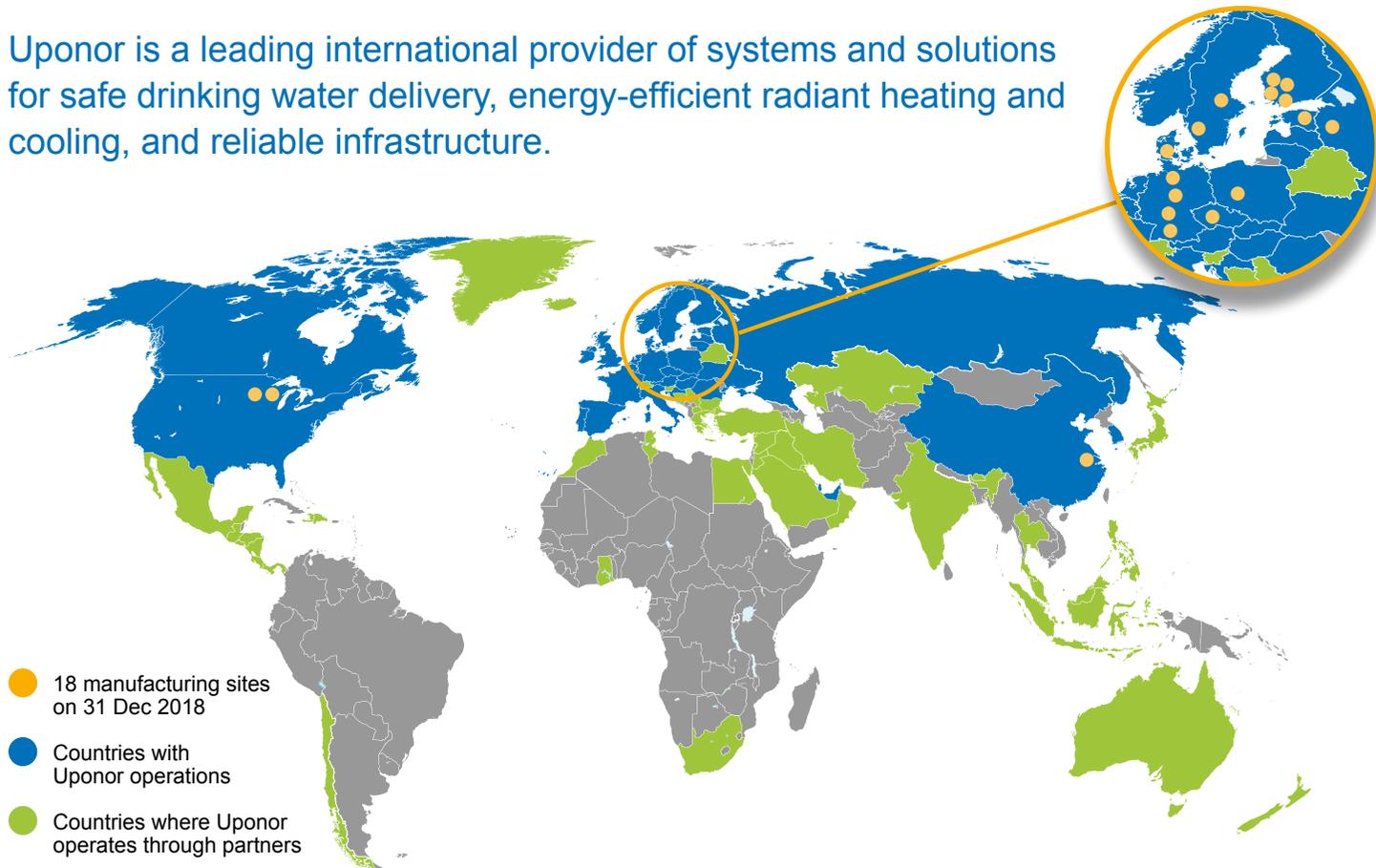
* Proposal of the Board of Directors

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Uponor in brief

Uponor is a leading international provider of systems and solutions for safe drinking water delivery, energy-efficient radiant heating and cooling, and reliable infrastructure.



Uponor operates in three segments: Building Solutions – Europe, Building Solutions – North America, and Uponor Infra. These serve a variety of building markets, including residential, commercial, and industrial and civil engineering. Uponor is listed on Nasdaq Helsinki.

4,100

employees in 30 countries

1.2

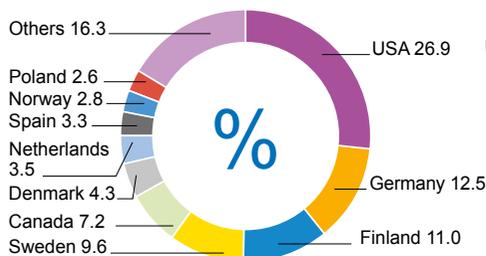
billion euro in net sales in 2018

Products sold in

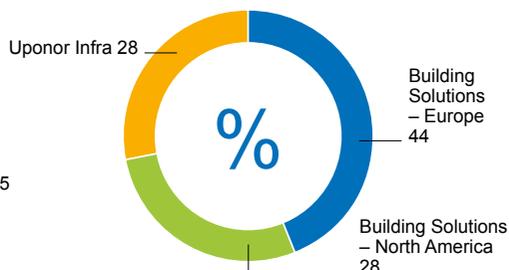
100

countries

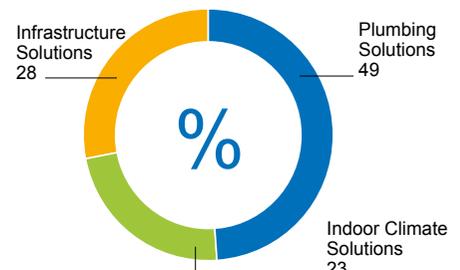
Net sales by country



Net sales by segment

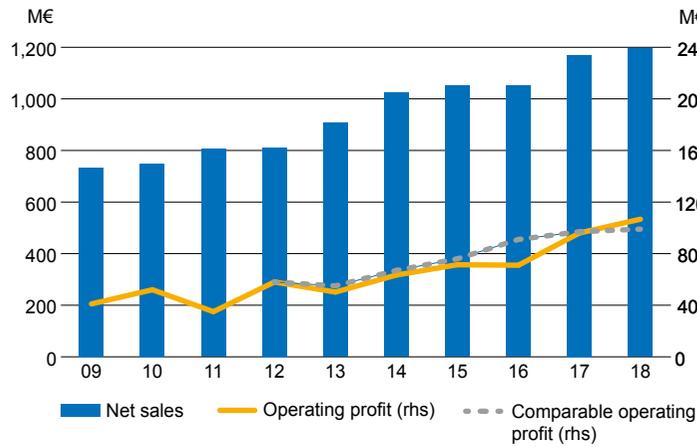


Net sales by business group

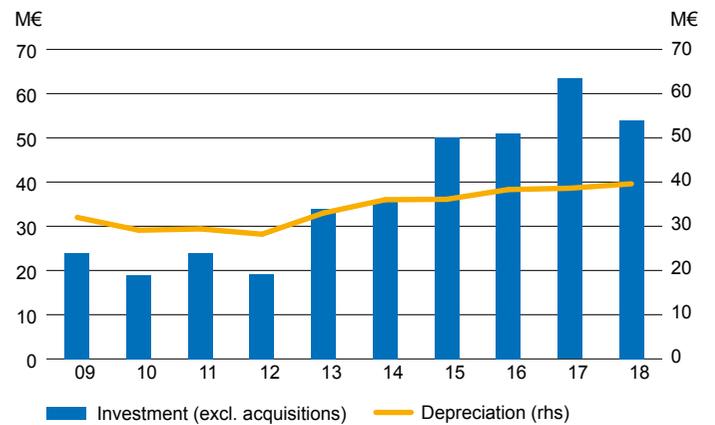


10 years at a glance

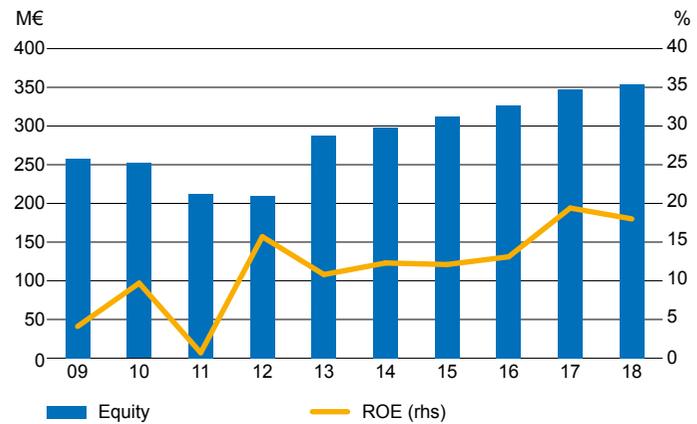
Net sales and operating profit 2009–2018



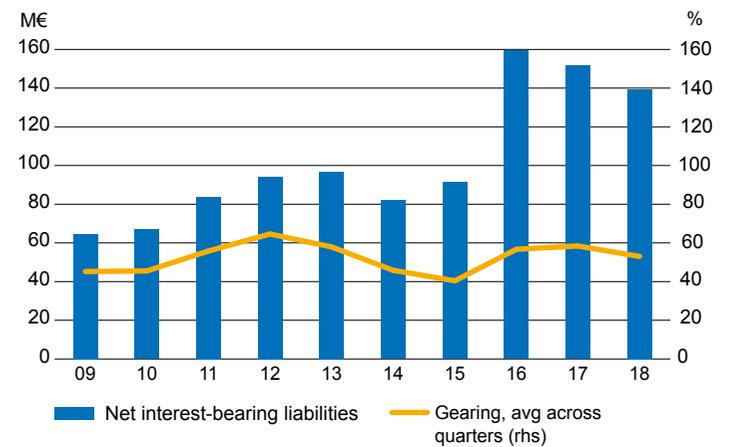
Investment and depreciation 2009–2018



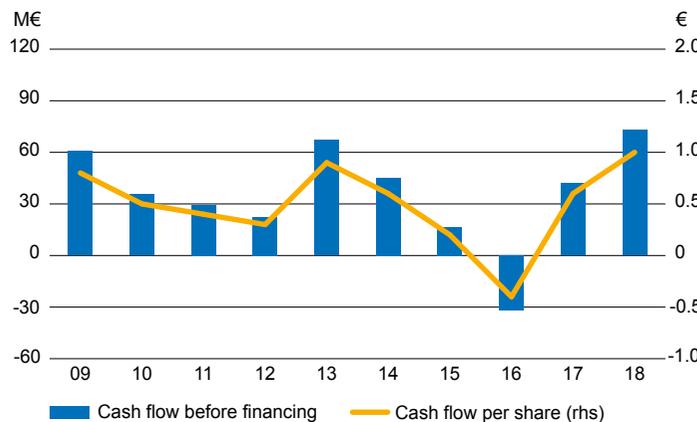
Equity and ROE 2009–2018



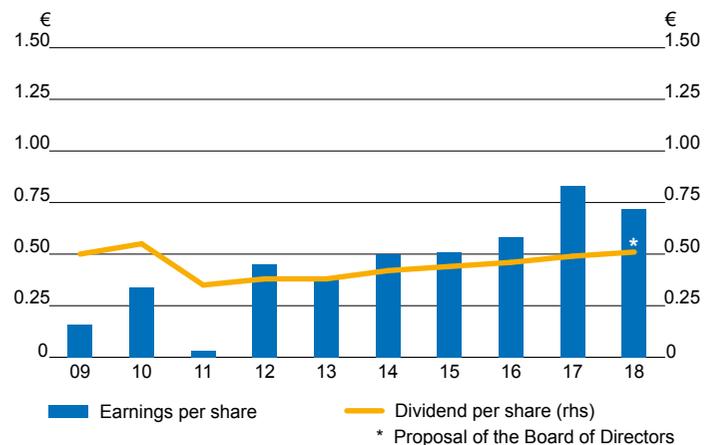
Net interest-bearing liabilities and gearing 2009–2018



Cash flow before financing 2009–2018



EPS and DPS 2009–2018



Our business segments

We operate in three segments: Building Solutions – Europe, Building Solutions – North America, and Uponor Infra. We serve a variety of building markets, including residential, commercial, and industrial and civil engineering.

Building Solutions – Europe

In Europe, we offer products and solutions for safe drinking water delivery and energy-efficient radiant heating and cooling for single and multi-family homes, office and industrial buildings, hotels and sports facilities. In recent years, the segment has concentrated its efforts in smart, hygienic water installations, as well as prefabricated solutions for efficient installation and construction.

The segment's main office is located in Germany, and production facilities are located in several European countries.

Net sales: €524.2 million

Employees (average): 2,073



Building Solutions – North America

Building Solutions – North America offers solutions to residential and commercial spaces in North America: PEX plumbing, radiant heating/cooling, hydronic distribution, pre-insulated pipe and fire sprinkler systems.

The segment's main office and production facility are located in Apple Valley, Minnesota, with another production facility in Hutchinson, Minnesota.

Net sales: €340.5 million

Employees (average): 925



Uponor Infra

Uponor Infra offers infrastructure solutions, namely underground infrastructure for handling water, sewage, gas, air, telecommunications and data, including tailor made constructions and project services. Uponor Infra Technology also provides machinery and production technology for the plastic pipe industry.

Uponor Infra's main offices and production facilities are located in Czech Republic, Denmark, Estonia, Finland, Latvia, Norway, Poland and Sweden.

Net sales: €337.3 million

Employees (average): 999



Our strategy is based on three horizons of profitable growth

The **first horizon** represents our current business, where standard components are delivered through wholesalers. In terms of building solutions, our products are mainly supplied to the residential construction market. For Uponor Infra, the first horizon business model represents systems in stock and standard project sales. In the first horizon, the commoditisation is accelerating and competition getting more intense. Therefore in 2018, we concentrated on improving our competitiveness by reviewing our business and geographical portfolio. As a result, we divested Uponor Infra's North American business and Zent-Frenger GmbH in Germany and we decided to close down our operations in Asia. In 2019, we will continue to improve our operational efficiency and launch new, innovative products to the markets.

The **second horizon** represents the growth of business through expansion into the commercial segment, i.e. multi-family housing and commercial buildings. For Uponor Infra, the commercial segment equals sales of designed solutions. In 2018, Uponor Infra increased sales of designed solutions significantly, and we anticipate the good progress to continue in 2019. In building solutions segments, we streamlined our portfolio of prefabricated elements and increased manufacturing capacity. In addition, we reorganised our sales organisations. In 2019, we will continue to roll-out our portfolio as well as develop our digital presence and customer experience further.

In the **third horizon**, we build options for future growth, which will include our digital solutions and possible service business. We launched Phyn Plus water monitoring system in the North American markets and trained a certified dealer network of 350 professional installers. We also launched Uponor Infra's water monitoring services in European markets. In spring 2019, we will launch Phyn Plus in Europe.

Going forward, we will focus on our core businesses in Europe and North America.

We are committed to addressing the key sustainability issues of our time through product innovations and improving our own operations. In 2018, we worked around updating our sustainability strategy. Going forward, we will focus on four different themes that have been chosen from United Nations' Sustainable Development Goals: clean water and sanitation; responsible consumption and production, climate action and decent work and economic growth. Selected focus areas are those that have impact potential on the business, including major opportunities and are aligned with Uponor's business scope.

Three horizons of profitable growth



Letter to investors

Dear reader

The year 2018 marked many milestones in our history. Not only it was the centennial birthday year of Uponor, but several changes implemented in 2018 will hopefully bear long with us.

First though, looking at our key financial target of profitable growth, we made strides to the right direction, but not long strides enough. Organic net sales growth of 4.9% I would categorise reasonable in an environment of very modest market growth. While our comparable operating profit mathematically improved from the 2017 numbers, this improvement was below our initial plans. These initial plans, however, contained also businesses we divested during 2018 and hence were not contributing for the full year into our reported performance.

Uponor Infra's North American business was considered non-core from the very beginning of our Infra joint venture with KWH Group; it was never synergistically integrated to the Infra business focusing geographically around the Baltic Sea and it was a commodity business with the ups and downs of such a business. Since the formation of the Infra JV, we were seeing more of the downs, and in late 2017, when the season for the ups came, we decided to start a process divesting the business, which then happened at end of August.

Zent-Frenger, a manufacturer of radiant ceilings was acquired in 2012. We were not able to exploit all synergies that were planned and Zent-Frenger's route to market, different to that of Uponor's building solution business, caused not only occasional confusion but also some conflicts in the end, and the exit in October 2018 for a price higher than our investment, was a graceful move to drive focus and simplicity.

In late 2018, we announced that we will cease our operations in Asia, and in that connection close the small manufacturing facility in China, which was opened two years before. There are clearly many facades behind a decision closing the production in one of the world's largest economies, but first and foremost we had to conclude that our offering focusing on premium products made mainly from imported raw materials did not turn out to be, despite test marketing and pre-studies, attractive enough for the very price conscious local markets. Competing in the less differentiated product categories with hundreds of local established manufacturers would have required us to make more investments to the region, where end result would still have been uncertain. Therefore we decided to concentrate on profitable growth in our key geographies, Europe and North America and focus on initiatives which support this target.

You need to dismantle to be able to build, one says. In 2018, we inaugurated the new pipe manufacturing facility in Hutchinson, Minnesota, close to the original Uponor North American manufacturing in Apple Valley, Minnesota. After some 10 expansions, we had reached the perimeters of our site in Apple Valley, and with the new facility

“Looking at our key financial target of profitable growth, we made strides to the right direction, but not long strides enough with organic net sales growth of 4.9%.”

in Hutchinson, we are also able to tap to a different pool of labour in the competitive market with more or less full employment. While the start of the Hutchinson facility caused double manning and redundant costs during the first half of the year, the start in the summer went well and now we are back to normal operations on two sites.

A few years ago we split our growth ambitions into three time and risk bound horizons: 1) we need to defend our strong position in the mainly residential driven distribution business; 2) we want to grow in commercial construction and 3) we have to build options for future growth. All of Uponor is engaged in the first horizon, often internally referred to as our bread-and-butter business. After the 2008 financial crisis we made first serious moves to adapt and offer our solutions to the commercial construction markets, and in the meanwhile, we can record some success in these efforts, as over one third of our European and some half of our North American building solutions business are already directed to the commercial construction markets. In the third horizon the buzzword digital comes also into the play. For our indoor climate solutions we have offered for decades electronics to control the heating or cooling, in the last years these electronics have become connected, offering greater benefits both in terms of energy efficiency and optimisation as well as user experience.

Year 2018 also marked the launch of Phyn Plus, the first product from our joint venture with Belkin, which is a consumer electronics company from California, and Uponor's first truly connected offering giving the consumer a peace-in-mind in terms of identifying water leaks in the home besides giving transparency to the use of water, a vital, but scarce resource on our planet Earth.

Planet Earth, one of the three aspects of the triple bottom line focusing on planet, people and profit – a cornerstone in our approach to sustainability and corporate social responsibility. In 2018, we joined United Nation's Global Compact and also made our prioritisation of United Nation's Sustainable Development Goals, where we focus on clean water and sanitation, decent work and economic growth, responsible consumption and production as well as climate action. Clearly, all 17 sustainable development goals are important, but with these four, we feel we can truly contribute and have a chance of making a difference.

People, our most important asset, if one may use that word, continued to be in the centre of development actions. In 2018, our leadership development portfolio with programmes starting from self-awareness, i.e. leading yourself, to leading people and leading businesses was in full action. In aggregate, almost 100 people participated and considering the multiplier factor of good leaders leading their teams to an effective and efficient execution of strategy, the expectations of the impact are significant. With our growth initiatives, may they be in the first horizon of growth, simply but being more competitive in our traditional residential distribution business, the second horizon with commercial or the third horizon with future solutions such as connected offerings among others, all require changes throughout our company, and the changes needed in our capabilities and competencies are material and mostly dependent on our people.

In connection with the centennial birthday celebrations and documentary film of our 100 year history, I expressed to all Uponorians my expectation that the quantity of change in the past 100 years is of the same magnitude as the change anticipated during the coming 10 years. As we can see from above, speed is increasing and list of change events in 2018 would easily fill this entire annual report. That is not the nature of this document, but more to highlight that we believe we have a clear set direction and work towards it continues every day.

For that work I would like to express my gratitude to all Uponorians for their valuable contribution as well as to our shareholders for trusting their investments into Uponor.

Jyri Luomakoski
President and CEO



How we create value

Operating in an industry with a strong influence on sustainable living, our objective is to enrich people's way of life by offering high quality indoor climate, plumbing and infrastructure solutions that enhance the wellbeing of our customers and the communities we all live and work in. Sustainability plays a key role in fulfilling this objective. We also consider the environmental aspects of our product offering

INPUTS

- **Financial resources**
 - Strong balance sheet, EUR 786.6 million
 - Healthy profitability and cash flow
 - Capital expenditure 4.5% of sales
- **Natural resources that 18 manufacturing facilities use**
 - Raw materials used 151,203 tonnes
 - Total energy consumption 226,863 MWh
 - Water consumption 207,077 m³
- **People**
 - 4,077 employees in 30 countries
 - Total working hours 6,913,280 hours
 - Value-based behaviour demonstrating customer focus and expertise
 - A variety of learning opportunities, unique career paths and leadership development programmes offered to support employee development
- **Partnerships**
 - Industry and trade associations
 - Customer engagement
 - Community engagement
- **Intellectual capital**
 - Uponor brand
 - Research and development, innovations, patents

BUSINESS MODEL



DRIVERS

- **Megatrends**
 - Climate change and scarcity of resources
 - Urbanisation
 - Digitalisation

and continuously aim to reduce the overall environmental impact of our business operations. Through innovation and partnerships, we are committed to long-term value creation and to creating a more sustainable world that delivers the ultimate goal of shared sustained success.

OUTPUTS

- **Products**
 - Indoor climate solutions
 - Plumbing solutions
 - Infrastructure solutions
- **Services**
 - Holistic project services for professionals
 - Design and maintenance services to consumers
 - Software and apps
 - Trainings for professionals
- **Waste in total 20,193 tonnes**
 - Hazardous waste 1.4%
- **Greenhouse gas emissions**
 - Scope 1: 8,469 tonnes and scope 2: 30,849 tonnes



IMPACT

- **Financial impact on stakeholders**
 - Shareholders: dividends paid EUR 35.8 million
 - Product and service suppliers: purchases paid EUR 857.9 million
 - Society: taxes and social costs paid EUR 63.3 million
 - Personnel: salaries and remunerations paid EUR 226.6 million
- **Society**
 - Improved health and wellbeing of customers and employees
 - Different development projects together with different stakeholders
 - Increased experience and knowhow of personnel and partners through different training programmes
- **Environment**
 - Uponor's products create better build environment by saving energy, improving health and increasing comfort

Figures from year 2018.

Sustainability highlights 2018

Conserving water

Smart water monitoring and shut-off device Phyn Plus was launched in North America in 2018 and it will be coming to Europe in 2019. The device alerts homeowners the second a leak is detected, mitigates costly damage through automatic shutoff, and diagnoses potential problems in a home's plumbing system before they become an issue. Phyn Plus also monitors water use to help conserve water and save money. Phyn is a joint venture company of which Uponor owns 50% share.

Safeguarding water quality

With the Europe-wide launch of new heat interface units (HIUs), we are offering an opportunity to build on state-of-the-art technology for on-demand hot water generation and heat distribution. Combi Port enables energy savings of up to 40% compared to traditional centralised systems. The HIUs also minimise the risk of legionella contamination by generating hot water on demand from cold drinking water. Additionally, each HIU is individually designed to meet customer requirements and delivered ready-made and fully tested to a construction site, which saves time and money through easier and up to 30% faster 'plug-and-play' installation.

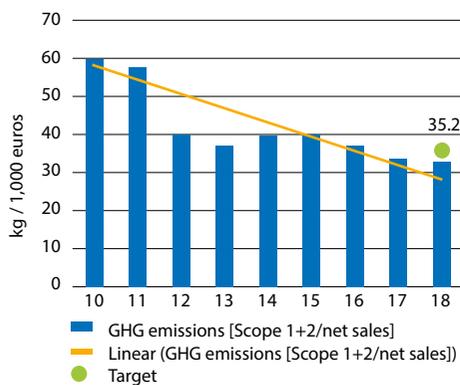
Meeting customer requirements

During summer and autumn 2018, we conducted an online Brand & Customer Satisfaction Survey in the main European markets and North America through an external partner. The survey confirmed that Uponor is appreciated as a high-quality, trustworthy and knowledgeable partner. This is because our product quality, completeness of product portfolio and ease of installation earned high satisfaction ratings. Our sales contacts also achieved good results with their expertise and know-how. Finally, our design and quotation, ordering, logistics, technical support and after-sales services received good satisfaction ratings on average.

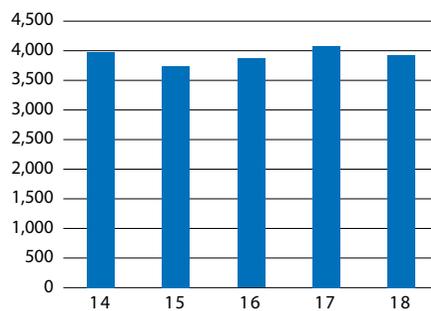
Donations for greater good

We have donated plumbing packages to Habitat for Humanity homes for over ten years and today our North American operations donate Uponor products to more than 50 affiliate homes per year throughout North America. Some of our employees also volunteer to install our products as well as generally prepare the affiliate houses for new homeowners. In 2018, our North American operations launched a new partnership with Plumbers Without Borders. Through the global NGO, our employees and customers are able to join a database of more than 2,000 volunteers to help design and implement plumbing projects that improve health and well-being through better plumbing and sanitation around the world.

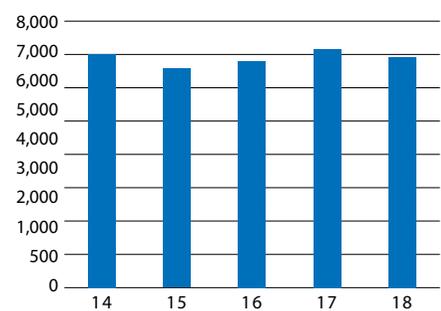
GHG emissions relative to target



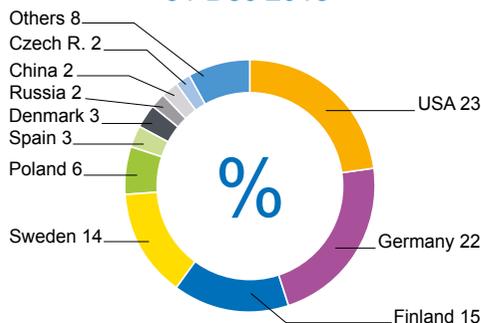
Total headcount (FTE) 31 Dec 2018



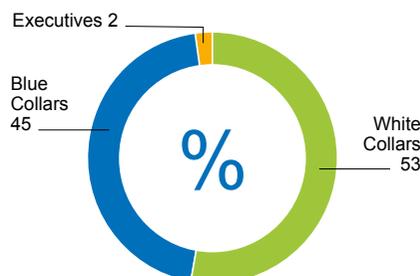
Total working hours (1,000 hours)



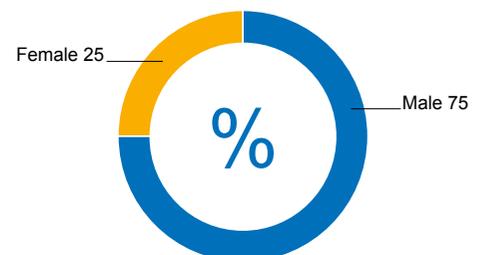
Employment by country (FTE) 31 Dec 2018



Employees by occupation 31 Dec 2018



Employees by gender 31 Dec 2018



Independent Practitioner's Assurance Report

To the Management of Uponor Corporation

We have been engaged by the Management of Uponor Corporation (hereinafter also the Company) to perform a limited assurance engagement on the quantitative environmental and social responsibility disclosures for the reporting period 1 January to 31 December 2018, disclosed in the "How we create value" and "Sustainability highlights 2018" sections of Uponor's annual report 2018 and in the "Non-financial information" section of the Review by the Board of Directors 2018 (hereinafter Sustainability Information).

Management's responsibility

The Management of Uponor Corporation is responsible for preparing the Sustainability Information in accordance with the Reporting criteria as set out in the Company's reporting instructions. The Management of Uponor Corporation is also responsible for such internal control as the management determines is necessary to enable the preparation of the Sustainability Information that is free from material misstatement, whether due to fraud or error.

Practitioner's independence and quality control

We have complied with the independence and other ethical requirements of the *Code of Ethics for Professional Accountants* issued by the International Ethics Standards Board for Accountants, which is founded on fundamental principles of integrity, objectivity, professional competence and due care, confidentiality and professional behaviour.

PricewaterhouseCoopers Oy applies International Standard on Quality Control 1 and accordingly maintains a comprehensive system of quality control including documented policies and procedures regarding compliance with ethical requirements, professional standards and applicable legal and regulatory requirements.

Practitioner's responsibility

Our responsibility is to express a limited assurance conclusion on the Sustainability Information based on the procedures we have performed and the evidence we have obtained. Our assurance report has been prepared in accordance with the terms of our engagement. We do not accept, or assume responsibility to anyone else, except to Uponor Corporation for our work, for this report, or for the conclusions that we have reached.

We conducted our limited assurance engagement in accordance with the International Standard on Assurance Engagements (ISAE) 3000 "Assurance Engagements Other than Audits or Reviews of Historical Financial Information". That standard requires that we plan and perform the engagement to obtain limited assurance about whether the Sustainability Information is free from material misstatement.

In a limited assurance engagement the evidence-gathering procedures are more limited than for a reasonable assurance engagement, and therefore less assurance is obtained than in a reasonable assurance engagement. An assurance engagement involves performing procedures to obtain evidence about the amounts and other disclosures in the Sustainability Information. The procedures selected depend on the practitioner's judgement, including an assessment of the risks of material misstatement of the Sustainability Information.

Our work consisted of, amongst others, the following procedures:

- Interviewing senior management of the Company.
- Visiting the Company's Head Office as well as three sites in Finland, Sweden and the United States of America.
- Conducting one video interview with one site in Germany.
- Interviewing employees responsible for collecting and reporting the Sustainability Information at the Group level and at the site level where our site visits and video interview were conducted.
- Assessing how Group employees apply the Company's reporting instructions and procedures.
- Testing the accuracy and completeness of the information from original documents and systems on a sample basis.
- Testing the consolidation of information and performing recalculations on a sample basis.

Limited assurance conclusion

Based on the procedures we have performed and the evidence we have obtained, nothing has come to our attention that causes us to believe that Uponor Corporation's Sustainability Information for the reporting period ended 31 December 2018 is not properly prepared, in all material respects, in accordance with the Reporting criteria.

When reading our assurance report, the inherent limitations to the accuracy and completeness of sustainability information should be taken into consideration.

Helsinki, 12 February 2019

PricewaterhouseCoopers Oy

Sirpa Juutinen
Partner
Sustainability & Climate Change

Jussi Nokkala
Director
Sustainability & Climate Change

Board of Directors

31 December 2018



Annika Paasikivi

b. 1975, Finnish citizen, B.A, M.Sc. (global politics), President and CEO, Oras Invest Ltd and CEO, Finow Ltd

- Chair of the Board, Uponor Corporation, 13 March 2018–
- Member of the Board, Uponor Corporation, 19 March 2014–
- Member of the Audit Committee
- Chair of the Personnel and Remuneration Committee
- Uponor shareholdings: 41,875



Markus Lengauer

b. 1965, Austrian citizen, M.Sc. (Eng.), Doctorate in Mechanical Engineering, President and CEO, Oras Group

- Deputy Chair of the Board, Uponor Corporation, 13 March 2018–
- Member of the Board, Uponor Corporation, 17 March 2015–
- Member of the Audit Committee
- Uponor shareholdings: 4,828



Pia Aaltonen-Forsell

b. 1974, Finnish citizen, M.Soc.Sc. in Economics, MBA, CFO, Ahlstrom-Munksjö Oyj

- Member of the Board, Uponor Corporation, 20 March 2017–
- Chair of the Audit Committee
- Uponor shareholdings: 2,476



Johan Falk

b. 1971, Swedish citizen, M.Sc. (Eng.), MBA, CEO, OneMed Group

- Member of the Board, Uponor Corporation, 13 March 2018–
- Uponor shareholdings: 1,277



Casimir Lindholm

b. 1971, Finnish citizen, M.Sc. (Econ.), MBA, President and CEO, Eitel AB

- Member of the Board, Uponor Corporation, 13 March 2018–
- Member of the Personnel and Remuneration Committee
- Uponor shareholdings: 1,277



Eva Nygren

b. 1955, Swedish citizen, Architect

- Member of the Board, Uponor Corporation, 15 March 2011–
- Uponor shareholdings: 10,661

Executive Committee

31 December 2018



Jyri Luomakoski

b. 1967, Finnish citizen, MBA, President and CEO

- Employed by Uponor Corporation since 1996
- Member of the Executive Committee since 1 October 1999
- President and CEO, Uponor Corporation, since 27 October 2008
- Uponor shareholdings: 38,685



Minna Blomqvist

b. 1969, Finnish citizen, M.Sc. (Eng), Executive Vice President, Human Resources

- Employed by Uponor since 2017
- Member of the Executive Committee since 1 September 2017
- Uponor shareholdings: 2,000



Sebastian Bondestam

b. 1962, Finnish citizen, M.Sc. (Eng.), President, Uponor Infra

- Employed by Uponor since 2007
- Member of the Executive Committee since 1 April 2007
- Uponor shareholdings: 18,301



Bill Gray

b. 1965, Canadian and British citizen, B.Com. (Finance and Marketing) & B.A., President, Building Solutions – North America

- Employed by Uponor since 2008
- Member of the Executive Committee since 15 February 2012
- Uponor shareholdings: 21,259



Maija Strandberg

b. 1969, Finnish citizen, M.Sc. (Econ), CFO

- Employed by Uponor since 2017
- Member of the Executive Committee since 21 March 2017
- Uponor shareholdings: 0

Further up to date details at <https://investors.uponor.com>

Review by the Board of Directors

Markets

Despite some softening towards the end of the year, construction activity on both sides of the Atlantic was generally healthy in 2018, growing marginally from the strong levels seen in 2017. Consumers on both continents continued to benefit from a strong labour market that in turn drove growth in residential new build projects. Although more cautious than consumers, businesses increased investments in non-residential construction projects, too. As in previous years during this prolonged growth cycle, a pronounced lack of skilled labour continued to challenge builders' ability to take on new projects.

In Uponor's largest Central European market, Germany, residential building permits fell from their post-unification peak, but remained at elevated levels that continued to provide a backlog of multi-family housing projects. Spending on new residential projects grew, while the significantly larger renovation segment was flat compared to the previous year. Non-residential building grew slightly, but was at a similarly low level as in previous years. Growth was stronger in the Netherlands, with spending in both the residential and non-residential segments expanding.

In Southwest Europe, the Spanish construction market continued to make gains from a very low baseline. Construction spending was sustained at elevated levels in France, while the Italian market was again subdued. In the UK, political uncertainties may have contributed to a reduction in investment in non-residential projects, but residential spending remained at 2017 levels.

Construction activity in the Nordic region continued to grow during the beginning of the year, supported by a backlog of projects. However, as the year wore on, a clear deceleration in the number of new multi-family residential projects became evident in Finland and Sweden. In the non-residential segment, Sweden and Norway both experienced a decline in activity, while Finland and Denmark grew slightly.

In North America, the USA posted another year of construction industry growth, albeit at a reduced rate from earlier years. Residential spending grew and home builder confidence remained clearly in expansionary territory, despite moderating towards the end of the year. Meanwhile, businesses continued to invest more in non-residential projects, with nearly every sub-segment contributing to the growth. In Canada, a decrease in residential spending was compensated for by growth in non-residential projects.

With regard to Uponor's infrastructure solutions, demand was stable overall, with softening in some building segments offset by increased government expenditures in, for example, Sweden and Norway. East Central European countries, and especially Poland, benefited from elevated investment levels in both building and civil engineering.

Net sales

Uponor's 2018 net sales amounted to €1,196.3 (1,170.4) million, a growth of 2.2% year-over-year. The negative currency impact totalled €28.1 million, bringing the 2018 full-year organic growth to 7.4% in constant currency terms. The negative net currency effect was mainly due to the USD, SEK, CAD and RUB.

Building Solutions – Europe's net sales amounted to €524.2 (521.7) million, showing a small growth of 0.5% year-over-year. Net sales remained at quite a stable level in most countries, with the biggest growth in Finland and Spain. Net sales declined in Sweden and slightly in Germany.

Building Solutions – North America reported full-year net sales at €340.5 (328.2) million, a growth of 3.7%. In U.S. dollar terms, net sales were \$401.5 (373.2) million, representing growth of 7.6%. The growth came from both the U.S. and Canadian markets.

Uponor Infra's net sales came to €337.3 (323.4) million, which represents a growth of 4.3%, despite the divestment of North American business in August 2018. Most of this growth came from Sweden and Poland.

Within the business groups, the share of plumbing solutions represented 49% (49%), indoor climate solutions 23% (24%), while infrastructure solutions represented 28% (27%) of Group net sales. If the impact of Uponor Infra's North American business is eliminated, the shares are: plumbing solutions 52%, indoor climate solutions 24% and infrastructure solutions 24%.

Measured in terms of reported net sales, and their respective share of Group net sales, the 10 largest countries were as follows (2017 figures in brackets): the USA 26.9% (26.3%), Germany 12.5% (13.2%), Finland 11.0% (10.3%), Sweden 9.6% (9.7%), Canada 7.2% (8.6%), Denmark 4.3% (4.4%), the Netherlands 3.5% (3.5%), Spain 3.3% (3.2%), Norway 2.8% (2.6%), and Poland 2.6% (1.9%).

Net sales by segment for 1 January–31 December 2018:

M€	1–12/2018	1–12/2017	Reported change (%)
Building Solutions – Europe	524.2	521.7	0.5%
Building Solutions – North America	340.5	328.2	3.7%
(Building Solutions – North America (M\$))	401.5	373.2	7.6%
Uponor Infra	337.3	323.4	4.3%
Eliminations	-5.7	-2.9	
Total	1,196.3	1,170.4	2.2%

Results and profitability

The consolidated full-year gross profit ended at €400.8 (394.1) million, a growth of €6.7 million. The gross profit margin came to 33.5% (33.7%). Comparable gross profit came to €400.8 (395.1) million, or 33.5% (33.8%).

Consolidated operating profit came to €106.7 (95.9) million, a clear improvement from the previous year, driven by the disposal gains (€11.7million) from the divestment of Uponor Infra's North American business and (€4.0 million) Zent-Frenger. The operating profit margin ended at 8.9% (8.2%) of net sales.

Comparable operating profit, i.e. excluding any items affecting comparability, reached €99.3 (97.2) million, an increase of 2.1%. Comparable operating profit margin came to 8.3% (8.3%). The total net amount of items affecting comparability was €7.4 (1.3) million, of which a total of €4.3 (2.8) million was reported in Building Solutions – Europe (disposal gain from divestment of Zent-Frenger, restructuring costs and ramp down costs from Asian operations) and €-11.7 (-1.5) million in Uponor Infra (the disposal gain from the divestment of North American business).

Building Solutions – Europe's operating profit was €31.1 (40.0) million. The segment reported a decline in full-year comparable operating profit, which came to €35.4 (42.8) million. The segment's profitability was burdened by the continuing tight competitive situation together with increasing raw material prices. The introduced price increases were not enough to offset the situation, when also operational expenses increased in Virsbo. In addition, the sales mix did not support profitability development.

Building Solutions – North America's operating profit came to €46.6 (49.7) million, or \$54.9 (56.5) in USD. The decline was due to start-up costs for Hutchinson manufacturing facility as well as increased raw material costs and freight rates. During the second half of 2018, the segment introduced price increases and managed to reduce freight rates, but the positive actions were not enough to fully compensate for the weaker first half of the year.

Uponor Infra reported a good improvement in operating profit €35.1 (12.0) million as well as in comparable operating profit which reached €23.4 (10.5) million. The improved profitability was driven by operational improvements in Finland as well as designed solution sales. Uponor Infra's North American business was divested in August 2018.

Uponor's net financial expenses increased to €8.5 (5.4) million, as the comparison period includes a positive impact of €3.6 million from the Finnish Supreme Administrative Court tax resolution. Net currency exchange differences in 2018 totalled €-4.9 (-3.2) million.

The share of the result in associated companies, €-4.7 (-2.3) million, is related to Uponor's 50% share in the joint venture company, Phyn, established in 2016. Uponor increased its ownership from 37.5% to 50% in February 2018, by investing an additional €8.1 million (\$10 million). Sales of the new Phyn Plus smart water monitoring system began in the second quarter in the USA, and it will be launched in European markets in spring 2019.

Profit before taxes was €93.5 (88.2) million. The effective tax rate was 32.4% (25.8). The divestments of Uponor Infra's North American business and Zent-Frenger together with decision to cease operations in Asia and close down the sales office in Australia had one-time impacts of +4.9% pts to effective tax rate. Income taxes totalled €30.3 (22.8) million.

Profit for the period totalled €63.2 (65.4) million. Return on equity reached 18.0% (19.4%).

Return on investment increased to 17.2% (16.3%). Return on investment, adjusted for items affecting comparability, came to 15.9% (16.6).

Earnings per share were €0.72 (0.83). Equity per share was €4.08 (3.83). For other share-specific information, please see the Tables section.

Consolidated cash flow from operations amounted to €79.9 (101.5) million. Uponor received full compensation for the tax claim concerning Uponor Business Solutions Oy, with an impact of €11.4 million, but the net working capital increased. This is due to the comparison period, where North American inventories were on a level too low for sustainable business needs at the end of 2017. In addition, the inventories were at a higher level in Europe in the end of 2018 driven by the new product launches in March 2019. Cash flow before financing came to €72.7 (42.0) million.

Key figures are reported for a five-year period in the key financial figures section.

Investment, research and development, and financing

During recent years Uponor has invested in selected productivity improvements, maintenance and the modernisation of technology in the company's manufacturing operations in addition to new digital innovations.

In 2018, Uponor's largest investments were the new manufacturing facility in Hutchinson, Minnesota and the joint-venture, Phyn, with Belkin International. The expansion investment in Hutchinson was announced on 20 July 2017, and Uponor opened the new manufacturing facility in June 2018. In 2018, Uponor invested €18.2 million (\$21.5 million) to Hutchinson. In 2017, the investment was worth €7.6 million (\$8.6 million). Uponor invested an additional €8.1 million (\$10 million) in Phyn and increased its ownership from 37.5% to 50% in

Operating profit by segment for 1 January–31 December 2018:

M€	1–12/2018	1–12/2017	Reported change (%)
Building Solutions – Europe	31.1	40.0	-22.1%
Building Solutions – North America	46.6	49.7	-6.2%
(Building Solutions – North America (M\$))	54.9	56.5	-2.8%
Uponor Infra	35.1	12.0	191.6%
Others	-5.2	-4.2	
Eliminations	-0.9	-1.6	
Total	106.7	95.9	11.3%

Comparable operating profit by segment for 1 January–31 December 2018:

M€	1–12/2018	1–12/2017	Comparable change (%)
Building Solutions – Europe	35.4	42.8	-17.3%
Building Solutions – North America	46.6	49.7	-6.2%
(Building Solutions – North America (M\$))	54.9	56.5	-2.8%
Uponor Infra	23.4	10.5	122.0%
Others	-5.2	-4.2	
Eliminations	-0.9	-1.6	
Total	99.3	97.2	2.1%

February 2018, bringing Uponor's cumulative investment up to €21.6 million (\$25 million).

In 2018, gross investment in fixed assets totalled €54.0 (63.4) million. Net investments totalled €53.3 (61.8) million.

Research and development costs decreased slightly to €22.5 (23.2) million, or 1.9% (2.0%) of net sales. The main areas for research and development were digitalisation and Internet of Things (IoT) initiatives together with the new-generation indoor climate controls and plumbing fittings, which will be launched in ISH fair in March. In addition, Uponor continued to develop different BIM (Building Information Model) solutions, new pipe extrusion technologies and process as well as improvements to existing platforms.

The main existing long-term funding programme on 31 December 2018 was the 5-year bilateral loan agreement of €100 million, which will mature in July 2022. The loan has replaced the earlier €80 million bond, which matured in June 2018.

In addition to the above-mentioned funding arrangement, Uponor has outstanding, bilateral long-term loans of €50 million and €20 million, both of which will mature in the summer of 2021. As back-up funding arrangements, Uponor has four €50 million committed bilateral revolving credit facilities in force, totalling €200 million and maturing in 2021–2023; none of these were used during the reporting period.

For short-term funding needs, Uponor's main source of funding is its domestic commercial paper programme, totalling €150 million, none of which was outstanding on the balance sheet date. Available cash-pools limits granted by Uponor's key banks amounted to €34.9 million, none of which was in use on the balance sheet date. At the end of the year, Uponor had €38.1 (107.0) million in cash and cash equivalents.

Accounts receivable and credit risks received special attention throughout the year. Most of Uponor's accounts receivable are secured by credit insurance.

Net interest-bearing liabilities decreased to €139.2 (151.5) million. The solvency ratio was 45.1% (40.5%) and gearing came to 39.4% (43.5%), with a four-quarter rolling gearing of 53.0% (58.4%). Average quarterly gearing was 53.0 (58.4), in line with the range of 30–70 set in the company's financial targets.

Events during the period

Uponor celebrated its 100-year anniversary throughout 2018.

In January, Uponor Inc., part of Building Solutions – North America, completed its tenth €16.3 million (\$17.4 million) manufacturing expansion in Apple Valley.

During the same month, Phyn, Uponor's joint venture with Belkin International, Inc., launched its first product Phyn Plus, a smart water monitoring system, at the International Builders' Show (IBS) in Florida and the Consumer Electronics Show (CES) in Las Vegas. The product received two awards at these shows. Phyn Plus became available to customers in the USA in Q2 and will be launched in Europe in spring 2019.

In February, Uponor invested an additional \$10 million in Phyn, bringing its cumulative investment to €21.6 million (\$25 million). With this second round of funding, Uponor established 50 percent ownership in Phyn, the other 50 percent being owned by Belkin.

In the second quarter, Uponor Inc., part of Building Solutions – North America, opened a second manufacturing facility in Hutchinson, Minnesota, and began producing PEX pipe slightly ahead of the planned schedule.

On 29 August, the Finnish Tax Administration gave its decision concerning Uponor Business Solutions Oy's tax case. As a result, taxes, surtaxes and delay interests, recorded by Uponor in 2011, in total approximately €11.4 million as well as statutory interests was paid back to the company.

On 31 August, Uponor announced that Uponor Infra and Wynnchurch Capital, an American private equity firm, have signed a business purchase agreement for Uponor Infra's North American business. The debt and cash free purchase price was CAD 62.5 million (approximately €41 million).

On 5 September, Uponor and Swegon Group AB signed a share purchase agreement for the sale of all outstanding shares in Zent-Frenger GmbH. The debt and cash free purchase price was €16 million. The acquisition was completed at the end of October 2018.

In September, Uponor Infra Oy and Infra Pipe Solutions Ltd signed a Weholite Licensing Agreement for the continuous future manufacture of Weholite pipes and products for the North American market. In addition to Uponor Infra's own production of Weholite, there are licensees in the UK, Iceland, Oman, South Africa, Malaysia, Thailand, Japan, Brazil, France, Turkey, Tanzania and now also in Canada.

On 13 December, Uponor announced that in alignment with its strategy to focus on profitable growth in core businesses throughout Europe and North America, the company has decided to cease operations in Asia during 2019. This includes operations in China, as well as sales offices in South Korea, Hong Kong and Malaysia.

On 19 December, the Board of Directors of Uponor Corporation resolved to continue the key management Performance Share Plan mechanism, originally decided on by the Board in 2014. Approximately 50 Group key managers, including the members of the Executive Committee, belong to the target group covered by the new plan. The

new plan covers the calendar years 2019–2021, 2020–2022 and 2021–2023. The potential reward based on the 2019–2021 plan will be paid in 2022. The purpose of the plan is to continue aligning the objectives of the management and Uponor shareholders in order to increase the value of the company, boost profitable growth and retain key managers.

Personnel and organisation

At the end of the year, the Uponor Group had 3,928 (4,075) employees, in full-time-equivalent (FTE) terms. This is 147 less than at the end of 2017. The decrease in the number of employees was due to the divestments of Uponor Infra's North American business and Zent-Frenger. The average number of employees (FTE) for the year was 4,074 (3,990).

Two changes were seen in the Group's Executive Committee during the year 2018. Fernando Roses, Executive Vice President, Group Technology and Corporate Development, left Uponor in April and his successor, Richard Windischhofer, joined Uponor in January 2019. Jan Peter Tewes, President, Building Solutions – Europe, left Uponor in September and his successor, Karsten Hoppe, joined Uponor in February 2019.

The geographical breakdown of the Group's personnel (FTE) was as follows: the USA 23% (20%), Germany 22% (23%), Finland 15% (15%), Sweden 14% (13%), Poland 6% (6%), Spain 3% (3%), Denmark 3% (3%), Russia 2% (2%), China 2% (2%), Czech Republic 2% (2%) and other countries 8% (9%).

A total of €259.5 (245.7) million was recorded in salaries, other remunerations and employee benefits during the financial period.

Non-financial information

This section describes Uponor's corporate responsibility activities as required in the Chapter 3a of the Finnish Accounting Act on non-financial information.

Uponor's business model and value creation

Operating in an industry with a strong influence on sustainable living, Uponor's objective is to enrich people's way of life by offering high quality indoor climate, plumbing and infrastructure solutions that enhance the wellbeing of Uponor's customers. At Uponor, sustainability plays a key role in fulfilling this objective. Through innovation and partnerships, the company is committed to long-term value creation and developing a more sustainable world.

During 2017, Uponor conducted a materiality analysis among its stakeholders. The analysis together with the UN's Sustainable Development Goals forms the framework for Uponor's sustainability approach. During 2018, Uponor reviewed its sustainability strategy and defined four focus areas: clean water and sanitation, responsible production and consumption, climate action as well as decent work and economic growth. The selected focus areas are those that have the greatest impact potential on the business, including major opportunities, and are aligned with Uponor's business scope. In 2019, Uponor will continue the work and define measurable targets for each focus area.

Uponor is organised into three segments (Building Solutions – Europe, Building Solutions – North America and Uponor Infra)

according to business responsibility and proximity to customers. People, brand, sustainability and technology topics are managed at Group level in order to benefit from the global presence and maximise the return from long-term R&D projects.

More information on Uponor's value creation model can be found in the Annual Report.

Operating principles and due diligence processes

Uponor complies with local laws and regulations, and the company's Code of Conduct, together with other Group policies, form the foundation for its operating principles. In 2018, Uponor also joined the UN Global Compact.

Environment

Uponor considers the environmental aspects of its product offering and continuously aims to reduce the overall impact of its business operations. Uponor has 18 manufacturing sites globally and their key environmental impacts are greenhouse gas emissions, waste and water usage. Uponor's target is to reduce scope 1 and scope 2 greenhouse gas emissions by 20% per net sales by 2020, from 2015 levels.

Uponor pursues an environmental management system according to the standard ISO 14001, and an energy-management system compliant with the standard ISO 50001, to reach its environmental and energy targets systematically. In 2018, 14 manufacturing facilities were ISO 14001 certified and 7 ISO 50001 certified. Uponor's environmental topics are covered by Quality Environmental Management Policy. Internal and external audits are conducted on a yearly-basis to ensure enforcement of the Quality Environmental Management Policy. Based on information provided by suppliers, all Uponor products and systems comply with the requirements of the European REACH regulation. While North America does not have a REACH regulation of its own, Uponor follows the EU regulation throughout the company, when appropriate.

In addition, Uponor is developing innovations related to recyclable packaging systems and alternative resins, among others, to promote circular economy.

Personnel and social matters

Uponor emphasises equal treatment, and promotes safety and well-being of its employees. The health and safety of employees is a management priority and Uponor is striving towards zero accidents. Employee health and safety topics are covered by the Quality Environmental Management Policy.

Uponor's people strategy is based on three main themes: leadership, talent and culture. With the people strategy, the company aims to ensure that it attracts and retains the right talent to support Uponor's business goals under good leadership and a high performance culture.

Uponor conducts a personnel survey every other year to get feedback from its employees on employee-related matters. The next survey is planned for 2019.

Human rights

Uponor respects human rights as defined, for example, in the United Nations' Universal Declaration of Human Rights. Uponor is a responsible employer and supports equal opportunities for its employees. No discrimination is allowed. Uponor does not allow child or forced labour

or any other activities that are against basic labour rights across its value chain.

Uponor has a Supplier Policy, which aims to ensure that suppliers also meet Uponor's ethical, social, environment and quality standards as well as comply with all local laws and regulations.

In 2018, Uponor launched a whistle-blower channel which enables employees to report non-compliant behaviour anonymously.

Anti-corruption and bribery

Uponor has zero tolerance for corruption and bribery. Uponor's Fraud Prevention Policy sets out the company's attitude towards fraud and its intention to prevent it, as well as the responsibilities of all Uponor employees regarding fraud prevention.

The new whistle-blower channel will enable employees to report non-compliant behaviour anonymously.

Results of compliance with the operating principles

Environmental matters

Uponor's joint venture launched a smart water monitoring system with shut-off ability, Phyn Plus, to the US market. Phyn Plus helps customers to monitor their water consumption and detects leakages at an early stage to help save water. In addition, Uponor launched other products which help its customers to reduce energy-consumption, such as Uponor Combi Port. Uponor continues to concentrate on sustainability matters in its R&D.

Uponor continues to strive to reduce its greenhouse gas emissions and waste. In 2018, Uponor's scope 2 GHG emissions lowered driven by increased purchase of certified green electricity and updated emission factors to reflect more accurate location based and market based scope 2 emissions. At the same time scope 1 GHG emissions increased due to an increase in the products manufactured and addition of two new manufacturing facilities to the reporting scope.

The total amount of waste developed rather stably in 2018. Hazardous waste also came back to normal levels after the dismantling of an unused process water installation and nearby contaminated soil, which had been jointly used by Uponor and two businesses divested in the 1990s was completed in 2017.

In 2018, water consumption increased primarily at Hutchinson and Virsbo. Leaks were identified in the chiller towers and production was running on an open system instead of a closed loop during the replacement of chiller fill tanks for couple of months in Hutchinson. All the leaks are fixed and replacement is complete at Hutchinson. Virsbo experienced extraordinarily hot summer that led to an increase in water consumption.

In 2018, in the management system audit, one breach of environmental permits in Denmark was noticed and corrective actions were implemented.

Social and employee related matters

Safety is Uponor's top priority. In 2018, Uponor's lost time injury frequency was 12.7 (8.9). The increase is due to increase in accidents during commuting and business trips. Uponor also aims to improve the health and safety of the installers of its products, for example, with the new prefabricated products, which are lighter to handle than other similar products.

Uponor invested in internal trainings and launched a pilot in supervisor trainings in Finland and Denmark. The aim is to make these trainings compulsory to all supervisors to increase employees' leadership skills.

Uponor has been conducting its personnel survey every other year and 2018 was an off year. The company has started a project to renew its personnel survey concept during 2019.

Human rights

No incidents related to human rights violations were detected in daily management processes, internal audit investigations or through the whistle-blower channel in Uponor's operations.

Anti-corruption and bribery

No incidents related to corruption and bribery were detected by daily management processes, internal audit investigations or through the whistle-blower channel in Uponor's operations.

Main risks related to non-financial themes

Environmental matters

Non-compliance with local legislation and regulations may cause fines as well as reputational and business risk to Uponor.

Uponor mitigates environmental risks by trainings and implementing ISO 14001, ISO 9001 and ISO 50001 processes and certifications in its manufacturing facilities.

Social and employee related matters

Health and safety related issues may cause risk to Uponor. Uponor may also have difficulties in attracting and retaining talent in the organisation.

Uponor mitigates health and safety related risks by internal trainings, near-miss reporting and continuous improvement of internal processes. In addition, Uponor invests in building an attractive corporate culture and employer brand as well as building diverse career paths.

Human rights

Possible violation of human rights and employee rights may impact Uponor's reputation and business opportunities.

Uponor mitigates risks by developing internal trainings and processes as well as supply chain audits. In addition, the internal anonymous whistleblowing channel is in use.

Anti-corruption and bribery

Unethical behaviour by Uponor's employees or partners may negatively impact Uponor's reputation and business opportunities.

Uponor mitigates this risks by a careful recruitment process, internal trainings and monitoring partners. In addition, the internal anonymous whistle-blower channel is in use.

Key non-financial performance indicators

Measure	Unit	2018	2017	2016	2015	2014
Environmental indicators						
Total energy consumption	1,000 MWh	226.9	200.0	199.0	185.0	184.2
- Electricity purchased	1,000 MWh	180.6	157.5	149.6	138.3	130.6
- of which, certified green electricity	1,000 MWh	33.8	20.9	14.5	11.5	11.1
- Self-generated electricity	1,000 MWh	0.0	0.4	0.9	1.1	1.0
- Fossil fuels used	1,000 MWh	46.2	42.5	49.5	47.4	53.6
- Heating	1,000 MWh	30.5	27.9	34.2	32.2	35.9
- of which renewable	%	11.4	16.5	14.7	13.4	12.9
- Own fleet vehicles (including leasing)	1,000 MWh	15.8	14.6	15.2	15.2	17.7
Raw material used	1,000 tonnes	151.2	140.9	132.7	127.1	122.5
Water consumption	1,000 m ³	207.1	155.2	168.4	190.9	190.0
Total GHG emissions (Scope 1)	1,000 tonnes	8.5	7.5	8.7	8.5	9.6
Total GHG emissions (Scope 2)	1,000 tonnes	30.8	32.1	32.2	33.5	31.1
Total waste	1,000 tonnes	20.2	18.8	16.4	16.4	15.1
- Waste recycled	%	97.6	92.4	97.4	97.5	95.3
- Waste to landfills	%	2.4	7.6	2.6	2.5	4.7
Hazardous waste, of total waste	%	1.4	4.5	1.4	1.1	1.1
Social indicators						
Employee turnover	%	13.0	11.2	4.5	5.0	3.3
Workforce accidents		88	64	54	86	74
Incident rate (LTIF)	per million work hours	12.7	8.9	7.8	13.1	10.6

In 2018, 2 new manufacturing facilities were added to reporting scope. The current waste recycle % calculations include waste to energy and waste recycled as materials. Some figures for previous years have changed due to improved accuracy in the data collection and reporting. The data does not include information for the manufacturing facilities in Canada and China, as Uponor Infra's North American business was divested in 2018 and operations in China are planned to cease in 2019. Uponor aims to include all manufacturing facilities in the reporting in 2019. Currently, the data covers 15 manufacturing facilities of 18. Uponor is reporting its scope 2 emissions using location-based methodology, factors from "GHG Protocol/IEA (05/2018) - IEA2017", but for the countries, where Uponor purchases green electricity, market-based factors are in use. The total working hours are calculated based on the combined FTE of all active employees and the average yearly working hours of Uponor's biggest operating countries.

Key risks associated with business

Uponor's financial performance could be affected by a range of strategic, operational, financial and hazard risks.

Strategic risks

Uncertainty in the global economy and financial markets may have a negative impact on Uponor's operations, performance, financial position and sources of capital. Uncertainties will continue in 2019, e.g. Brexit and the possible trade war between the USA and China.

Uponor's key operating areas are Europe and North America, where exposure to political risks is considered to be relatively low in general. The Ukraine crisis continues, thus the sanctions imposed by the USA and EU against Russia, and Russia's counter sanctions, are affecting business conditions in and with Russia. Russia's share of Uponor's net sales was around 1.9% in 2018.

Demand for Uponor's products depends on business cycles in the construction sector. Uponor mitigates this risk by distributing its business to two main geographical areas: Europe and North America. Uponor also has three business areas: plumbing solutions, indoor climate solutions and infrastructure solutions. Uponor's products are used both in new construction projects and renovation projects, and in the latter the demand is usually more stable than in more cyclical new construction.

Increasing competitive pressure through e.g. private labelling creates a risk for Uponor. The company mitigates this with constant R&D investments and increasing its capabilities in the commercial segment, i.e. commercial buildings and multi-family housing.

Since Uponor's net sales are divided among a large number of customers, most of which are distributors (wholesalers); end-market demand for the company's products is distributed across a wide customer base.

Digitalisation, emerging technologies and capabilities related to those areas are needed to build new business opportunities for Uponor. Uponor's ability to attract and retain talent to drive change are key to Uponor's future success. Uponor manages this risk by building its employer brand and helping its current employees to develop, for example, their leadership skills. Uponor also aims to build a suitable partner network, which complements Uponor's own competences.

In most countries, Uponor's operations related to plumbing solutions are regulated by local legislation. For example, Uponor needs national product approval for a large proportion of the products it sells. Therefore, the company closely monitors any laws and regulations related to its products and raw materials under preparation, in order to anticipate their impact on Uponor and its customers. Uponor also participates actively in the work of different branch and trade organisations to influence both local and international policy makers on topics related to energy, health and water.

Operational risks

The prices of raw materials used in the manufacture of plastic pipe systems are susceptible to change, driven by several factors including petrochemical and metal product price fluctuations, supply capacity, and market demand among others. In recent years, Uponor has been able to pass most of the effects of such fluctuations onto its selling prices with a reasonable delay. Whenever feasible, Uponor manages the risk of fluctuations in the price of metals and plastics raw materials through supply agreements with fixed prices, and by means of financial products. Uponor continuously and systematically uses financial instruments to manage price risks associated with electricity prices at the Nordic level.

With respect to components, raw materials and services sourcing, Uponor aims to use supplies and raw materials available from several suppliers, who are also expected to follow all aspects of Uponor's Code of Conduct and framework contracts. Whenever only one raw material supplier is used, Uponor seeks to ensure that the supplier has at least two production plants, which manufacture the goods used by Uponor. Uponor implements systems for material and raw material quality control and supplier accreditation.

Uponor has entered the 'IoT era' by launching new intelligent products. Therefore, Uponor is monitoring multiple cyber risks, such as cyber, data and information threats. Uponor's business processes are managed by using several IT applications, the most important of which are the ERP systems for the company's European and North American operations. A system criticality review and contingency planning are constantly included in the implementation and lifecycle management of major IT systems.

Uponor has adopted a stance of zero tolerance with respect to Health & Safety, Compliance & Laws, and Environmental risks. For Uponor, risks related to climate issues or clean water also represent potential opportunities, which are based on the company's water saving, water hygiene-enhancing and energy-saving products and solutions.

Uponor operates under an ISO 9001 quality management system and an ISO 14001 environmental management system, which ensure consistent quality, as well as enhance production safety, environmental law compliance and productivity while reducing the environmental impact and risks related to Uponor's operations. In Germany, Uponor has implemented a certified Energy Management System based on ISO 50001 for all factories. A further rollout of ISO 50001 to all Uponor production sites is planned by 2020.

In its project business operations, Uponor is seeking to manage risks related to issues such as project-specific timing and costs. As far as possible, such risks are covered in project and supplier agreements. In addition, Uponor actively enhances its employees' project management skills.

Financial risks

Uponor aims to ensure the availability, flexibility and affordability of financing at all times by maintaining sufficient committed credit limit reserves and a well-balanced maturity distribution of loans, as well as by using several reputable and well-rated counterparties and various forms of financing.

The company manages its liquidity through efficient cash management solutions and by applying a risk-averse investment policy, investing solely in low-risk instruments which can be liquidated rapidly and at a clear market price.

Interest rate movements expose Uponor to changes in interest expenses, as well as in the fair values of fixed-rate financial items. The interest rate risk is managed by spreading Group funding across fixed and floating rate instruments.

The international nature of its operations exposes the company to currency risks associated with various currencies. 61.4% of Uponor's net sales are created in currencies other than the euro. Correspondingly, a major part of expenses associated with these net sales are also denominated in the same local currencies, markedly decreasing the associated currency risks. The Group Treasury function is responsible for managing and hedging Group-level net currency flows in external currency markets, mainly by using currency forward contracts and currency options as hedging instruments.

Uponor is also exposed to currency translation risk, which manifests itself in the translation of non-euro-area subsidiaries' equity into euros. According to the company's hedging policy, non-euro-area balance sheet items are not hedged, with the exception of some internal loans, which are classified as net investments and included in hedge accounting. Only reputable and well-rated banks are used as currency hedging counterparties.

Hazard risks

At the end of 2018, Uponor operated 18 manufacturing facilities. The products manufactured in these facilities generate most of the company's net sales. Uponor co-ordinates property damage and business interruption insurance at the Group-level on a centralised basis, in order to achieve extensive insurance coverage neutralising the possible financial damage caused by risks associated with machine breakdowns, fire, among others.

Another major risk is associated with product liability related to products manufactured and sold by Uponor. Product liability is also addressed through centralised insurance programmes at the Group-level.

Various and numerous measures are taken in order to manage the risks associated with property damage and business interruption. These include unit-level Business Contingency Plans, safety training for personnel, adherence to maintenance schedules, and actions taken to maintain the availability of major spare parts.

Uponor is involved in several judicial proceedings in various countries. The year 2018 saw no materialisation of risks, pending litigation or other legal proceedings, or measures taken by the authorities that, based on current information, might have been of material significance to Uponor.

Administration and audit

Uponor's Annual General Meeting was held in Helsinki, Finland, on 13 March 2018. Existing Board members Pia Aaltonen-Forsell, Markus Lengauer, Eva Nygren and Annika Paasikivi were re-elected. Swedish citizen Johan Falk and Finnish citizen Casimir Lindholm were elected as new members, since Jorma Eloranta and Jari Rosendal were unavailable for re-election. The AGM elected Annika Paasikivi as Chair of the Board. Audit firm Deloitte Oy was elected as the auditor of the corporation for the 9th consecutive year. Jukka Vattulainen, Authorised Public Accountant, assumed the role of principal auditor for his third term.

Uponor prepares a separate corporate governance statement and a remuneration statement, which are made available online, after the annual accounts have been published, on Uponor's IR website at <https://investors.uponor.com> > Governance > Corporate governance.

Uponor complies with the Finnish Corporate Governance Code 2015 issued by the Securities Market Association, with the exception of recommendations 13 and 15. According to recommendation 13, the Board of Directors should conduct an annual evaluation of its operations and working methods. During the year 2018, there were several changes in the Board of Directors and the Board concluded that the evaluation shall be made at the beginning of 2019, when more meetings have been conducted with the new composition. Therefore there was no evaluation conducted in the year 2018, but annual evaluations will be conducted in the future. According to recommendation 15, the Board of Directors' committees should have at least three members each. The Personnel and Remuneration Committee, however, has two members instead of the three stated in the recommendation. Uponor considers sufficient expertise to have been secured for the Personnel and Remuneration Committee on the basis of two members, and the Committee may also obtain views from outside the Committee. The Committee acts as a preparatory and assisting body for the Board of Directors, and all essential matters relating to remuneration shall be dealt with by the Board of Directors.

Share capital and shares

In 2018, Uponor's share turnover on Nasdaq Helsinki was 40.8 (35.1) million shares, totalling €499.0 (545.5) million. The share quotation at the end of 2018 was €8.62 (16.78), and the market capitalisation of the shares was €631.0 (1,228.4) million.

At the end of the year, there was a total of 20,341 (19,191) shareholders. Foreign shareholding in Uponor accounted for 23.5% (26.4%) of all shareholding in the company at the end of the reporting period. More detailed information is available in the financial statements.

In 2018, Uponor Corporation's share capital totalled €146,446,888, and the number of shares stood at 73,206,944; there were no changes during the year.

Board authorisations

On 13 March 2018, the Annual General Meeting authorised the Board of Directors to buy back a maximum of 3.5 million of the company's own shares. The authorisation is valid until the end of the next AGM, and for no longer than 18 months. On 24 October 2018, the Board decided to start repurchasing the company's own shares in one or several instalments. The maximum number of shares to be acquired was 200,000. The repurchases were completed on 5 November 2018 and in total 200,000 of Uponor's own shares were acquired.

The Board was also authorised to resolve on issuing a maximum of 7.2 million new shares or transferring the company's own shares, amounting to approximately 9.8 per cent of the total number of shares of the company. The Board of Directors is authorised to decide on all conditions relating to the issuance of shares. This authorisation is valid until the end of the next AGM. On 15 February 2018, the Board decided to transfer the company's own shares as specified in the rules of the LTI plan 2015–2017. A total of 14,365 were transferred to 11 key employees.

Further details regarding the AGM are available at <https://investors.uponor.com/governance/annual-general-meeting/annual-general-meeting-2018>.

Treasury shares

At the end of the year, Uponor held 244,756 of its own shares, representing approximately 0.33% of the company's shares and voting rights.

Management shareholding

At the end of the year the members of the Board of Directors and the President and CEO, along with corporations known to the company and in which they exercise control, held a total of 101,079 Uponor shares (134,288 shares). These shares accounted for 0.14% of all shares and votes in the company.

Share-based incentive programme

The Board of Directors has resolved on several long-term incentive programmes for key management in the last few years. Details of the plans are presented on the company's IR website.

In December 2018, the Board of Directors of Uponor Corporation resolved to continue the key management Performance Share Plan mechanism, originally decided on by the Board in 2014. Approximately 50 Group key managers, including the members of the Executive Committee, belong to the target group covered by the new plan. The new plan covers the calendar years 2019–2021, 2020–2022 and 2021–2023. The potential reward based on the 2019–2021 plan will be paid in 2022, partly in company shares and partly in cash.

The purpose of the incentive programmes is to align the objectives of the management and Uponor shareholders in order to increase the value of the company, boost profitable growth and retain the services of participants over the longer term. The plans offer key managers a competitive reward plan based on achieving the company's strategic profitability and growth targets and provide the opportunity to earn and accumulate Uponor shares.

Short-term outlook

For all of 2018, Uponor's key markets, Europe and North America, remained at a strong level. Political uncertainties remain, which causes difficulties in forecasting the outlook for 2019. E.g. Brexit, the challenges posed by tariff increases and China's economic development can change the situation, perhaps even quickly.

Assuming that economic and political developments in Uponor's key geographies continue undisturbed, Uponor issues the following full-year guidance for 2019:

Excluding the impact of currencies, Uponor expects its net sales to reach the level of the year 2018 net sales excluding the divested Uponor Infra's North American business and Zent-Frenger (€1,107.7 million), and comparable operating profit to improve from the year 2018 comparable operating profit excluding the divested Uponor Infra's North American business and Zent-Frenger (€83.5 million).

Uponor Corporation
Board of Directors

Proposal of the Board of Directors

The distributable funds of the parent company, Uponor Corporation are € 148,489,984.74, of which profit for the period is € 37,091,940.94. The Board of Directors proposes to the Annual General Meeting that

- a dividend of € 0.51 per share will be paid	€37,210,715.88
- the remainder be retained in the shareholders' equity	€111,279,268.86
	€148,489,984.74

The company's financial situation has not changed materially after the closing day. The company's liquidity is good. The Board of Directors' view is that the proposed profit distribution does not risk the company's liquidity.

Vantaa, 13 February 2019

Annika Paasikivi
Chair

Markus Lengauer
Deputy Chair

Pia
Aaltonen-Forsell

Johan Falk

Casimir Lindholm

Eva Nygren

Jyri Luomakoski
President and CEO

Group key financial figures

	2018	2017	2016	2015	2014
Consolidated income statement (continuing operations), M€					
Net sales	1,196.3	1,170.4	1,099.4	1,050.8	1,023.9
Operating expenses	1,063.6	1,038.4	991.0	942.7	926.4
Depreciation and impairments	42.4	39.2	41.6	39.1	36.5
Other operating income	16.4	3.1	4.2	2.4	2.4
Operating profit	106.7	95.9	71.0	71.4	63.4
Comparable operating profit	99.3	97.2	90.7	75.8	67.7
Financial income and expenses	-8.5	-5.4	-10.0	-8.9	-7.4
Profit before taxes	93.5	88.2	60.4	62.8	56.3
Result from continuing operations	63.2	65.4	41.5	37.1	36.3
Profit for the period	63.2	65.4	41.9	36.9	36.0
Consolidated balance sheet, M€					
Non-current assets	310.6	305.2	312.5	274.8	253.7
Goodwill	83.5	93.6	93.7	83.3	83.1
Inventories	147.9	132.7	139.3	112.4	117.4
Cash and cash equivalents	38.1	107.0	16.3	49.2	60.2
Accounts receivable and other receivables	206.5	227.3	205.7	188.1	167.4
Equity attributable to the owners of the parent company	297.6	280.2	263.3	248.0	231.1
Non-controlling interest	56.0	68.2	63.6	63.7	66.8
Provisions	30.2	28.9	28.8	25.0	16.2
Non-current interest-bearing liabilities	175.6	176.6	158.2	91.2	126.3
Current interest-bearing liabilities	1.7	81.9	17.6	48.3	15.9
Non-interest-bearing liabilities	225.5	230.0	236.0	231.6	225.5
Balance sheet total	786.6	865.8	767.5	707.8	681.8
Other key figures					
Operating profit (continuing operations), %	8.9	8.2	6.5	6.8	6.2
Comparable operating profit (continuing operations), %	8.3	8.3	8.2	7.2	6.6
Profit before taxes (continuing operations), %	7.8	7.5	5.5	6.0	5.5
Return on Equity (ROE), %	18.0	19.4	13.1	12.1	12.3
Return on Investment (ROI), %	17.2	16.3	14.1	15.5	14.2
Solvency, %	45.1	40.5	42.8	44.3	43.9
Gearing, %	39.4	43.5	48.8	29.3	27.6
Net interest-bearing liabilities, M€	139.2	151.5	159.5	91.3	82.0
- % of net sales	11.6	12.9	14.5	8.7	8.0
Change in net sales, %	2.2	6.5	4.6	2.6	13.0
Exports from Finland, M€	54.2	45.1	47.6	55.5	55.5
Net sales of foreign subsidiaries, M€	1,049.4	1,037.5	976.3	910.7	870.1
Total net sales of foreign operations, M€	1,064.7	1,049.7	990.1	927.3	888.8
Share of foreign operations, %	89.0	89.7	90.1	88.2	86.8
Personnel at 31 December	3,928	4,075	3,868	3,735	3,982
Average no. of personnel	4,074	3,990	3,869	3,842	4,127
Investments (continuing operations), M€	54.0	63.4	50.7	50.1	35.7
- % of net sales	4.5	5.4	4.6	4.8	3.5

Items affecting comparability and reconciliations to IFRS

	2018	2017	2016	2015	2014
Items affecting comparability					
- restructuring charges	-8.2	-3.4	-19.7	-6.2	-4.3
- capital gains and losses on sale of non-current assets	15.7	2.1	-	1.9	-
- total items affecting comparability in operating profit	7.4	-1.3	-19.7	-4.3	-4.3
Items affecting comparability, total	7.4	-1.3	-19.7	-4.3	-4.3
Comparable gross profit					
- Gross profit	400.8	394.1	376.0	370.2	340.1
- Less: Items affecting comparability in gross profit	-	-1.0	-7.9	-0.8	-
Comparable gross profit	400.8	395.1	383.9	371.0	340.1
% of sales	33.5	33.7	34.9	35.3	33.2
Comparable operating profit					
- Operating profit	106.7	95.9	71.0	71.4	63.4
- Less: Items affecting comparability in operating profit	7.4	-1.3	-19.7	-4.3	-4.3
Comparable operating profit	99.3	97.2	90.7	75.8	67.7
% of sales	8.3	8.3	8.2	7.2	6.6

Share-specific key figures

	2018	2017	2016	2015	2014
Share capital, M€	146.4	146.4	146.4	146.4	146.4
Number of shares at 31 December, in thousands	73,207	73,207	73,207	73,207	73,207
Number of shares outstanding, in thousands					
- at end of year	72,962	73,148	73,138	73,109	73,067
- average	73,123	73,130	73,133	73,106	73,067
Total equity attributable to the owners of the parent company, M€	297.6	280.2	263.3	248.1	231.1
Share trading, M€	499.0	545.5	297.7	384.1	229.3
Share trading, in thousands	40,763	35,077	20,339	27,590	18,843
- of average number of shares, %	55.7	48.0	27.8	37.7	25.8
Market value of share capital, M€	631.0	1,228.4	1,208.6	995.6	841.1
Earnings per share (diluted), €	0.72	0.83	0.58	0.51	0.50
Equity per share, €	4.07	3.83	3.60	3.39	3.16
Dividend, M€	37.2 ¹⁾	35.8	33.6	32.2	30.7
Dividend per share, €	0.51 ¹⁾	0.49	0.46	0.44	0.42
Effective share yield, %	5.9	2.9	2.8	3.2	3.7
Dividend per earnings, %	70.8	59.0	79.3	86.3	84.0
P/E ratio	12.0	20.2	28.5	26.7	23.0
Issue-adjusted share prices, €					
- highest	17.62	17.79	17.35	17.30	14.94
- lowest	8.13	13.30	11.13	10.42	9.11
- average	12.24	15.55	14.64	13.92	12.17

The definitions of key ratios are shown on page 42. Notes to the table: ¹⁾ Proposal of the Board of Directors The average number of shares is adjusted with treasury shares.

Shares and shareholders

The volume of Uponor shares traded on the NASDAQ OMX Helsinki Exchange in 2018 totalled 40,762,755, valued at € 499.0 million. The share closed at € 8.62 and the market capitalisation came to € 631.0 million. The year-end number of shareholders totalled 20,341 of which foreign shareholders accounted for 23.5 (25.8) per cent.

Major shareholders on 31 December 2018

Shareholder	No. of shares	% of shares	% of votes
Oras Invest Ltd	17,506,780	23.9	23.9
Varma Mutual Pension Insurance Company	3,862,072	5.3	5.3
Investment Fund Nordea Nordic Small Cap	3,182,639	4.3	4.3
Ilmarinen Mutual Pension Insurance Company	1,732,000	2.4	2.4
Mandatum Life Insurance Company Limited	1,423,648	1.9	1.9
KEVA	940,833	1.3	1.3
Paasikivi Pekka	846,500	1.2	1.2
The State Pension Fund	655,000	0.9	0.9
Paasikivi Jukka	588,173	0.8	0.8
Paasikivi Pertti	558,888	0.8	0.8
SEB Finlandia Fund	527,923	0.7	0.7
Nordea Bank Abp	505,100	0.7	0.7
Others	40,632,632	55.5	55.8
Total	72,962,188	99.7	100.0
Own shares held by the company	244,756	0.3	-
Grand total	73,206,944	100.0	100.0

Nominee registered shares on 31 December 2018

Nordea Bank AB (publ), Finnish Branch	9,829,665	13.4	13.4
Skandinaviska Enskilda Banken Ab (publ) Helsinki Branch	5,360,423	7.3	7.3
Svenska Handelsbanken AB (publ), Branch Operation in Finland	1,216,255	1.7	1.7
Others	591,302	0.8	0.8
Total	16,997,645	23.2	23.2

The maximum number of votes which may be cast at the Annual General Meeting is 72,962,188 (status on 31 December 2018). At the end of the financial period the company held a total of 244,756 own shares corresponding to the same number of votes. These shares do not entitle to vote in the Annual General Meeting.

The Paasikivi family has shareholdings directly and through Oras Invest Ltd totalling 26.9 (25.1) per cent.

Shareholders by category on 31 December 2018

Category	No. of shares	% of shares
Private non-financial corporations	20,819,039	28.4
Public non-financial corporations	1,936	0.0
Financial and insurance corporations	10,070,763	13.8
General government	7,725,939	10.6
Non-profit institutions	2,533,189	3.5
Households	14,870,862	20.3
Foreign (including nominee registrations)	17,185,216	23.5
Total	73,206,944	100.0

Shareholders by size of holding on 31 December 2018

Shares per shareholder	No. of shares, total	% of share capital	No. of shareholders	% of shareholders
1–100	346,500	0.5	5,948	29.2
101–1,000	4,659,471	6.4	11,377	55.9
1,001–10,000	7,381,076	10.1	2,772	13.6
10,001–100,000	5,475,675	7.5	203	1.0
100,001–1,000,000	11,230,740	15.3	33	0.2
1,000,001–	44,113,482	60.3	8	0.1
Total	73,206,944	100.0	20,341	100.0

Share capital development 2014–2018

	Date	Reason	Change, euro	Share capital, euro	Number of shares
2018	31 Dec			146,446,888	73,206,944
2017	31 Dec			146,446,888	73,206,944
2016	31 Dec			146,446,888	73,206,944
2015	31 Dec			146,446,888	73,206,944
2014	31 Dec			146,446,888	73,206,944

Corporate governance

Pursuant to the Finnish Companies Act and the Articles of Association of Uponor Corporation (hereinafter 'the Company'), the control and management of the Company is divided among the shareholders, the Board of Directors ('the Board') and the Chief Executive Officer ('CEO'). The Company's shares are quoted on Nasdaq Helsinki, and the Company observes its rules and regulations for listed companies.

Furthermore, the Company complies with the Finnish Corporate Governance Code 2015 (www.cgfinland.fi) issued by the Securities Market Association, with the exception of recommendations 13 and 15. According to recommendation 13, the Board of Directors should conduct an annual evaluation of its operations and working methods. During the year 2018, there were several changes in the Board of Directors and the Board concluded, that the evaluation shall be made at the beginning of 2019, when more meetings have been conducted with the new composition. Therefore, there was no evaluation conducted in the year 2018, but annual evaluations will be conducted in future. According to recommendation 15, the committees should have at least three members each. The Personnel and Remuneration Committee has, however, two members instead of three members as stated in the recommendation. Uponor considers that sufficient expertise for the Personnel and Remuneration Committee is secured with two members, and the Committee may also obtain views from outside of the Committee. The Committee acts as a preparatory and assisting body for the Board of Directors, and all essential matters relating to remuneration shall be dealt by the Board of Directors.

General meeting of shareholders

Shareholders exercise their rights in general meetings of shareholders, which constitute the Company's highest decision-making body. Under the Finnish Companies Act, decisions made by general meetings of shareholders include:

- Amendments to the Articles of Association;
- Adoption of the annual accounts;
- Dividend distribution;
- Share issues;
- Buyback and disposal of the Company's shares;
- Share and stock option plans;
- Election of members of the Board and decision on their emoluments; and
- Election of the Company's auditor and decision on audit fees.

Under the Finnish Companies Act, a shareholder has the right to require that an issue to be addressed by the general meeting of shareholders be included on the agenda of the general meeting of shareholders, if (s)he submits his/her demand in writing to the Board well in advance so that the matter can be included in the notice of meeting.

Shareholders who alone or jointly with others hold a minimum of 10 per cent of the Company's shares have the right to demand in writing that an extraordinary general meeting of shareholders be convened for the purpose of dealing with a specific matter.

Shareholders are entitled to exercise their rights at the general meeting of shareholders via an authorised representative, and the shareholder or the representative authorised by the shareholder may use an assistant at the meeting.

Shareholders wishing to participate in and exercise their voting rights at the general meeting of shareholders must notify the Company of their intention to attend the meeting by the date mentioned in the notice of meeting.

Board of Directors

Composition

Pursuant to the Articles of Association, the Board comprises a minimum of five and a maximum of seven members, elected for a one-year term starting at closing of the Annual General Meeting (AGM) at which they were elected and expiring at closing of the following AGM. Board members may be elected or removed only by a resolution adopted by the shareholders in a general meeting. The number of terms a Board member may serve is not limited, nor is there any defined retirement age. The AGM shall elect the Chair of the Board, while the Board elects a Deputy Chair for one year at a time from amongst its members.

In March 2018, the AGM elected the following six members to the Board:

- Ms Pia Aaltonen-Forsell, born 1974, M.Soc.Sc. in Economics, MBA, CFO, Ahlstrom-Munksjö Oyj until 28 February 2019, CFO, Outokumpu Oyj from 1 March 2019, member of the Uponor Board since 2017
- Mr Johan Falk, born 1971, M.Sc. (Eng.), MBA, CEO, OneMed Group, member of the Uponor Board since 2018
- Mr Markus Lengauer, born 1965, Master of Engineering, Doctorate in Mechanical Engineering, President and CEO, Oras Group until 31 December 2018, Board member, Oras Group since 1 January 2019, member of the Uponor Board since 2015
- Mr Casimir Lindholm, born 1971, M.Sc. (Econ.), MBA, President and CEO, Eltel AB, member of the Uponor Board since 2018
- Ms Eva Nygren, born 1955, Architect, member of the Uponor Board since 2011
- Ms Annika Paasikivi, born 1975, B.A, M.Sc. (Global politics), President and CEO, Oras Invest Ltd and CEO, Finow Ltd, member of the Uponor Board since 2014, who was also elected as the Chair of the Board.

For more detailed information on Uponor's Board members, please refer to on page 14 or visit investors.uponor.com.

The Company complies with the recommendations on issues related to Board members, their independence and non-executive position, issued by the Securities Market Association. Based on the evaluation of the Board, all of the current Board members are independent of the Company and all the current Board members, with the exception of Ms Annika Paasikivi and Mr Markus Lengauer, are also independent of major shareholders. According to Finnish legislation, all Board members are required to act in the best interest of the

The attached table shows the total annual remuneration paid to Board members in 2018:

Board of Directors	Audit Committee	Personnel and Remuneration Committee	Remuneration in cash	Remuneration in shares	Remuneration in shares	Remuneration for Board and committee meetings
						Total €
			€	Number of shares	Value, €	
Eloranta, Jorma, Chair until 13 March 2018		Chair until 13 March 2018	-	-	-	1,800
Aaltonen-Forsell, Pia	Chair from 13 March 2018		30,275	1,416	20,399	13,800
Falk, Johan from 13 March 2018			27,309	1,277	18,396	6,600
Lengauer, Markus, Deputy Chair from 13 March 2018	Member		30,275	1,416	20,399	13,800
Lindholm, Casimir from 13 March 2018		Member from 13 March 2018	27,309	1,277	18,396	7,200
Nygren, Eva			27,309	1,277	18,396	9,000
Paasikivi, Annika, Chair from 13 March 2018	Member, Chair until 13 March 2018	Chair from 13 March 2018	53,439	2,498	35,986	19,800
Rosendal, Jari until 13 March 2018	Member until 13 March 2018		-	-	-	1,800
In total			195,916	9,161	131,972	73,800

Company and its subsidiaries (“Group”) as well as shareholders, and to disclose any potential conflicts of interest.

The AGM determines Board remuneration and fees. Based on the 2018 AGM’s decision, the annual Board remuneration is as follows: €90,000 for the Chair, €51,000 for the Deputy Chair, €51,000 for the Chair of the Audit Committee and €46,000 for ordinary members. The AGM further decided that approximately 40 per cent of the annual remuneration be paid in company shares acquired on behalf and in the name of the Board members, and approximately 60 per cent in cash.

The AGM further decided that a separate remuneration per meeting shall be paid to Board members for all meetings, amounting to €600 for meetings held in the country of residence of the member, €1,200 for meetings held elsewhere on the same continent, and €2,400 for meetings held on another continent. The remuneration for telephone meetings shall be the same as for meetings held in the country of residence of the member in question. The AGM also decided, that in addition a remuneration of €600 shall be paid to the Chair of the Board for each Board meeting and to the Chairs of the Board committees for each respective committee meeting.

Travel expenses are compensated for in accordance with the Company travel policy.

The AGM also decided that, in accordance with earlier practice, the company takes out voluntary pension insurance for Board members. Upon retirement, this entitles them to pension according to the Finnish Employees’ Pensions Act (TyEL).

According to Uponor’s policy, remuneration and fees are paid only to non-executive Board members.

The Board members are not involved in the Company’s share-based incentive scheme.

Duties

In accordance with the Finnish Companies Act, the Board of Directors is responsible for the management of the Company and the proper organisation of its activities. The Board’s main duty is to direct the Group’s strategy in such a way that enables, in the long run, the Group to meet the set financial targets and the return to shareholders is secured, while simultaneously taking the expectations of various stakeholders into account. In addition to the statutory duties, the Board takes decisions on all other significant issues.

According to the charter of the Board of the Directors, the Board shall, among other things:

- annually review and determine the rules of procedure of the Board and the Executive Committee (‘ExCom’);
- approve the Group’s values and monitor their implementation;
- approve the Group’s basic strategy and monitor its implementation and updating;
- determine the dividend policy;
- make a proposal to the general meeting of shareholders on the payment of the dividend, including the amount and time of payment;
- approve the annual operational plan and budget based on the strategy, as well as monitor their implementation;
- annually approve the total amount of investments as well as any investments that exceed the approved total annual investment limit;
- approve investments and leasing arrangements whose net present value exceeds the limit specified in the Signing and Authorisation Policy;
- approve acquisitions, joint ventures, partnerships, licensing arrangements and asset divestments that exceed the limits specified in the Signing and Authorisation Policy;
- approve the Group’s general organisational structure;
- appoint and dismiss the President and CEO and determine the terms of his/her service contract;

- l) prepare and approve the President and CEO's annual compensation;
- m) approve the appointment and dismissal of members of ExCom;
- n) approve annual compensation for the members of ExCom;
- o) prepare and approve a succession plan for the President and CEO;
- p) approve succession plans for members of ExCom;
- q) approve the interim reports, the half year financial report, the annual report and the annual financial statements;
- r) meet the external auditor at least once a year in a closed session without the management;
- s) prepare the proposals for general meetings of shareholders;
- t) annually evaluate the performance of the President and CEO and members of the Board as well as that of the Chair;
- u) approve key Group operational policies, such as compensation policy;
- v) deal with other issues raised by the Chair or the President and CEO.

Meetings and decision-making

The Board meets on average 10 times a year. Some meetings may be held as teleconferences. Two of the meetings should take place at different business units. The Board may also meet at any time without the presence of the management and make decisions without holding a meeting. Minutes of a meeting are taken in English for each meeting.

During 2018, the Board held nine meetings in total, two at a business unit and two as teleconference meetings. One non-attendance was recorded (Casimir Lindholm) and two partial non-attendances (Pia Aaltonen-Forsell one and Johan Falk one). Further, the Board made three decisions without having a meeting.

The CEO shall prepare the Board meeting agenda for the review by the Chair. Any Board member may recommend the inclusion of a specific agenda item, such recommendations being accommodated to the extent practicable. Material for Board meetings shall be distributed to the members well in advance of each meeting.

The CEO and the Secretary to the Board shall attend Board meetings on a regular basis, while other members of the corporate management shall attend at the Chair's invitation.

Board members shall have complete access to members of the ExCom and vice versa. Any non-routine communications shall be reported to the CEO.

The Board constitutes a quorum when more than half of the members are present. Decisions shall be made on a simple majority basis, with the Chair casting the deciding vote should the votes be even.

Board diversity principles

When designing the composition of the Board of Directors, the Nomination Board of the company assesses the Board composition from the viewpoint of the company's current and future business needs, while taking into account the diversity of the Board.

The diversity of the Board of Directors will be assessed from various viewpoints. The members of Uponor's Board of Directors shall have sufficient and complementary experience and expertise in the key industries and markets relevant to Uponor's business. In addition, an essential element is the personal characteristics of the members and their diversity.

Expertise	Personal characteristics
<ul style="list-style-type: none"> • Knowledge on the company's value creation drivers • Industry • Relevant markets and technologies • Accounting and finance • Governance 	<ul style="list-style-type: none"> • Professional experience • Education • Gender • Age • Personality

Objective

The company's aim is that the Board of Directors represents diverse expertise in different industries and markets, diverse professional and educational background, diverse age distribution and both genders. Concerning gender diversity the objective is that both genders are represented in the Board by at least two members.

The realisation of the diversity principles is monitored and reported in the company's Corporate Governance Statement.

Board committees

Audit Committee

The Board decided to re-establish the Audit Committee on 13 March 2018, with the same charter as earlier. The members of the Audit Committee are Pia Aaltonen-Forsell, Annika Paasikivi and Markus Lengauer, with Pia Aaltonen-Forsell elected as the committee chair.

According to the charter of the Audit Committee, the Committee shall have the following duties:

- to monitor the reporting process of financial statements and assuring that the reporting process generates correct information, to deal with any exceptional and material items and their handling and to approve important accounting principles;
- to review and oversee the quality and integrity of the annual report and the annual financial statements as well as the interim reports and the half year financial report;
- to monitor the financial and liquidity position of the company and prepare matters and proposals to the Board on a need-to-know basis;
- to monitor the efficiency, plans and processes of the Group's internal control, internal audit and risk management systems;
- to review the Company's corporate governance statement including the description of the main features of the internal control and risk management systems pertaining to the financial reporting process;
- to approve the annual plan and budget, to issue instructions on and to review and monitor the operations, plans and reports of the internal audit function, to receive status reports of the internal audit function in every meeting and to meet with the internal auditor at least twice a year;
- to review the external audit plan and to monitor the statutory audit of the financial statements and consolidated financial statements, to approve the budget of the external audit as well as new assignment above the limit set by the Audit Committee;
- to meet with the external auditor quarterly and to review all material reports from the auditor;

- to evaluate the independence of the statutory auditor or audit firm, particularly the provision of related services to the company to be audited;
- to prepare the proposal for a resolution on the election of the auditor;
- to monitor the Company's compliance with legal and regulatory requirements, including the performance of its ethics and compliance programme; and
- to meet with the management of the company, particularly the CEO and the CFO, but also others responsible for internal control and risk management.

The invitation and materials of the audit committee meetings shall be sent to the board members, who all have the right to attend the meetings.

The Committee held four meetings in 2018, one of which was a teleconference meeting. No non-attendances were recorded.

Personnel and Remuneration Committee

The Board decided to re-establish the Personnel and Remuneration Committee on 13 March 2018, with the same charter as earlier. The members of the Personnel and Remuneration Committee are Annika Paasikivi (chair) and Casimir Lindholm.

The Personnel and Remuneration Committee shall have the following duties (charter):

- preparing the appointments of the President and CEO and the members of the Executive Committee, and the terms and conditions of their employment
- preparing matters to be brought to the Board relating to personnel, evaluation of top management and succession planning as needed
- preparation of matters pertaining to the remuneration and other financial benefits of the President and CEO and other executives
- preparation of matters pertaining to the remuneration schemes of the company
- evaluation of the remuneration of the President and CEO and the other executives as well as seeing to it that the remuneration schemes are appropriate
- reviewing the remuneration statement
- answering questions related to the remuneration statement at the general meeting.

The Personnel and Remuneration Committee held six meetings in 2018, with no non-attendances.

Nomination Board

In March 2012, the AGM resolved to establish a permanent Nomination Board comprising of shareholders or representatives of shareholders to annually prepare the proposals for the election of the members of the Board of Directors and the remuneration of the members of the Board of Directors.

The duties of the Nomination Board shall be to:

- prepare the proposal for the appointment of the members of the Board of Directors to be presented to the general meeting

- prepare the proposal to the general meeting on matters pertaining to the remuneration of the members of the Board of Directors
- look for prospective successors for the members of the Board of Directors
- present the proposals on the members of the Board of Directors and the members' remuneration to the general meeting.

The Nomination Board shall be comprised of the three largest shareholders or representatives of such shareholders, in addition to which the Chair of the Board of Directors shall act as an expert member. The three largest shareholders who on 31 August preceding the general meeting are registered in the shareholders' register of the company, held by Euroclear Finland Ltd., and have the largest share of all the voting rights, shall have the right to appoint the members representing the shareholders. The holdings of a shareholder, held in several funds or registers, who according to the Securities Market Act has an obligation to disclose changes in ownership (notified shareholdings), will be calculated together when counting the voting rights, if the shareholder so requests in writing to the Board of Directors, at the latest on 30 August preceding the general meeting. If a shareholder does not wish to use the right to appoint a member, the right shall pass on to the next biggest shareholder in to the shareholders' register, who otherwise would not have a right to appoint a member. The Nomination Board shall constitute a quorum when a majority of the members are present.

The Nomination Board is convened by the Chair of the Board of Directors and it shall elect a Chair amongst its members.

The Nomination Board shall, as a rule, present its proposal to the Board of Directors of the company by the end of January and, in the minimum, four weeks prior to the general meeting in the same year as the general meeting is being held.

The Board of Directors of Uponor Corporation argues that it is in the interest of the company and its shareholders that the biggest shareholders of the company participate in the preparation of the election and remuneration of the members of the Board of Directors.

In September 2018, the following persons were nominated to the Nomination Board: Jari Paasikivi (Oras Invest Oy), Chair, Henrika Vikman (Nordea Funds Oy) and Reima Rytsölä (Varma Mutual Pension Insurance Company). Chair of the Board Annika Paasikivi acts as an additional expert member.

The Nomination Board held two meetings in 2018. No non-attendances were recorded. Further, the Nomination Board made one decision without having a meeting.

Chief Executive Officer

Mr Jyri Luomakoski, MBA, born 1967, acts as President and CEO of the Company.

Assisted by the Executive Committee, the CEO is in charge of the Group's day-to-day management in accordance with the orders and instructions issued by the Board. It is the CEO's duty to ensure that the Group's accounting procedures comply with the applicable legislation and that the financial management is conducted in a reliable manner. The CEO is also the Chair of the Executive Committee.

In 2018, the base salary paid to the CEO, Mr Jyri Luomakoski, totalled €437,685 in cash and €26,040 as fringe benefits, in total

€463,725. The Company paid the CEO a total of €149,580 based on the short-term incentive plan for the year 2017. Based on the decision of the Board of Directors on 12 February 2019, the CEO was awarded a reward of €177,593 based on the short-term incentive plan 2018. In addition, based on the long-term incentive plan 2015–2017, he was awarded 3,138 shares that were transferred to his book-entry account, in connection with which a money transfer was made to the tax authority, which corresponds to the value of 4,222 shares as income tax and asset transfer tax.

Under the terms of the CEO's written service contract, the contract may be terminated at a six months' notice, either by the CEO or the Company. If the Company terminates the contract, it must pay the CEO, in addition to statutory compensation for the notice period, an amount equivalent to the fixed total salary paid for the 12 months preceding the termination. The Company may also terminate the agreement with immediate effect, by paying an indemnification equivalent to the CEO's fixed total salary for 18 months. Retirement age for the CEO will be determined in accordance with the Employees' Pensions Act (TyEL), however, both the Company and the CEO may require the CEO's retirement at the age of 63 years. The company has also taken a defined contribution pension insurance for the CEO, into which the company annually pays €40,000. The Company has further concluded a pension arrangement based on a capitalisation agreement for the benefit of the CEO, into which the company annually pays €50,000.

President of Uponor Infra Oy and member of the Executive Committee, Mr Sebastian Bondestam acted in 2018 as the deputy to the managing director of the parent company. The company has taken a defined contribution pension plan for Mr Sebastian Bondestam, deputy to the managing director, according to which he shall be entitled to a contribution of 8,66 per cent of the annual base salary including fringe benefits for the year 2018. The Board shall decide on the percentage of the defined contribution separately for each year.

Executive Committee

Duties

The Executive Committee is mainly responsible for formulating and implementing the Group's strategy. It also discusses and decides on significant operational issues, while each of its members is responsible for the Group's day-to-day management with respect to his/her field of responsibility.

The ExCom shall, among other things, attend to the following:

- a) the Group's strategy and its implementation throughout the Group;
- b) budgets, business plans and their implementation;
- c) significant organisational changes and any changes in employment conditions affecting large numbers of employees such as:
 - the composition of area/regional management teams,
 - major structural changes within the organisation,
 - all major redundancy programmes,
- d) the appointment or removal of Senior Officers and Unit Managers belonging to the reporting chain of any ExCom member;
- e) annual salary and incentive structures of the management (excluding those of ExCom members);

- f) investments and leasing arrangements with net present value of leases being in the limits specified in the Signing and Authorisation Policy;
- g) acquisitions, joint ventures, partnerships and licensing arrangements and, should these exceed the limit specified in the Signing and Authorisation Policy, the ExCom shall submit a proposal to the Board;
- h) incorporation or dissolution of legal entities;
- i) asset divestments - including real estate, legal units and shares in the limits specified in the Signing and Authorisation Policy;
- j) performance by region/unit including analysis of market trends and the competitive environment, as well as significant corrective actions (to be discussed in each meeting);
- k) R&D and new business development priorities and resources;
- l) items related to the Group's brand architecture;
- m) legal disputes and claims of a significant nature including matters at regional/unit level;
- n) other matters, upon the Board's request.

ExCom prepares proposals to the Board on matters which require a resolution of the Board.

Membership

The ExCom comprises of the CEO and the number of executives determined by the Board, with the CEO acting as the Chair. For more information on ExCom members and their responsibilities, please refer to page 15 or visit our website at investors.uponor.com.

Meetings and decision-making

The ExCom meets 8–12 times a year, with informal records being kept of its meetings. In 2018, the ExCom held ten meetings.

The target is to achieve a unanimous view among the members of the ExCom on the issues under discussion. The decisions shall be confirmed by the Chair.

Board and CEO evaluation

The Board conducts an evaluation of the CEO's performance with respect to, for example, strategic planning, management skills and financial performance, based on a special evaluation form. In addition, the Board conducts a separate evaluation of its performance and that of the Chair. Normally these evaluations are conducted annually, but during 2018 no evaluation was conducted due to several changes in the Board composition. From 2019 onwards, annual evaluations will be conducted again.

Compensation

The Group's compensation system consists of the basic salary, fringe benefits and a short-term incentive plan, which is subject to an individual employee's position. The superior of an employee's immediate supervisor is responsible for approving an individual employee's compensation.

On 11 December 2015, the Board of Directors approved the establishment of a new long-term share-based incentive plan, which covered a maximum of 25–30 members of the Group's key manage-

ment. The plan covers the years 2016–2018. On 12 December 2016, the Board of Directors approved the establishment of a new long-term share-based incentive plan, which covered a maximum of 25–30 members of the Group's key management. The plan covers the years 2017–2019. On 13 December 2017, the Board of Directors approved the establishment of a continuation to the long-term share-based incentive plan, which covered a maximum of 50 members of the Group's key management. The plan covers the years 2018–2020. Further, on 19 December 2018, the Board of Directors approved the establishment of a continuation to the long-term share-based incentive plan, which covered a maximum of 50 members of the Group's key management. The plan covers the years 2019–2021.

The purpose of the plans is to retain key management, as well as to motivate and reward the management for good performance that supports the company's profitability and the implementation of the company's strategy. The plans also encourage the key management to further acquire and own Uponor's shares, which will contribute to aligning the interests of the management, the company and the shareholders.

A Group employee is not entitled to a separate fee for a board membership within a Group company.

The Board determines the CEO's employment terms and conditions and annual compensation, and approves ExCom members' annual compensation, based on the CEO's proposal.

Internal control, risk management, internal audit and external audit

Internal control

The Board is responsible for the principles of internal control in Uponor. Uponor's internal control is defined as a process influenced by the Board, the management and all the individual employees of the Group. The objective of internal control is to ensure that the management has a reasonable assurance that:

- operations are effective, efficient and aligned with the strategy;
- financial reporting and management information is reliable, comprehensive and timely; and
- the Group is in compliance with applicable laws and regulations.

Uponor's internal control framework strives to balance the business needs and the control perspective. The aim of the internal control framework is thus to:

- focus on the most business-relevant risks and issues from the strategic alignment and operational effectiveness point of view;
- promote ethical values, good corporate governance and risk management practices;
- ensure compliance with laws, regulations and Uponor's internal policies; and
- assure production of reliable financial reporting to support internal decision-making and to serve the needs of external stakeholders.

The base for the internal control environment and integrity of the employees is set in Uponor's Code of Conduct and values.

Uponor's aim is to embed control in the daily operations. Effective internal control requires that duties are properly segregated to different employees and potential conflicts of interests are identified

and eliminated. Examples of existing control mechanisms include group policies, accounting and reporting instructions and regular management business review meetings. Additionally, as an example, responsibilities for communication with external parties, such as customers, suppliers, regulators and shareholders are clearly set.

Ongoing monitoring occurs locally in each organisational unit during the course of daily operations. On Group level, the responsibility lies within the Finance and Administration function.

Whether separate evaluations are needed, their scope and frequency, will depend primarily on an assessment of risks and the effectiveness of ongoing monitoring procedures. Internal control deficiencies shall be reported upstream, with serious matters to be reported to the top management and the Board. Any separate evaluations are performed by the internal audit function and may be initiated by the Board or by the management.

Risk management

Risk management is a systematic way of protecting business assets and income against losses in order to achieve the Company's targets without unnecessary interruption. Risk management also includes risk-taking. That means utilisation of opportunities, taking into account the risk-reward ratio in each case.

The objective of risk management is to enable the Company to implement its strategy, to ensure it achieves its financial targets and to protect it from operative incidents, which might prevent it from achieving its targets. A further objective is to ensure the continuity of the operations even in an exceptional business environment.

The main risk areas of the Company have been identified and assessed. Group risk identification and assessment process is conducted twice a year, during second and fourth quarters. Each ExCom member has been allocated his/her own area of responsibility with regard to the identified risks, including the management and proper organisation of those risk areas throughout the Group.

Group Risk Management Team, comprising the CFO, President, Uponor Infra, EVP, Group Technology and Corporate Development, General Counsel and Vice President, Treasury and Risk Management, is responsible for the monitoring of Group-level risks and mitigation actions, and for informing the ExCom and the Board.

Vice President, Treasury and Risk Management is responsible for providing support to the ExCom in developing risk policies and guidelines, as well as for establishing assessment, monitoring and reporting procedures. He/she provides support to the Regions/areas, units and functions by providing assistance and training. He/she is also responsible for establishing and maintaining the company's global insurance programmes.

A summary of risks associated with business is available on pages 21-22 in the section "Review by the Board of Directors" or on our investor website at investors.uponor.com.

Financial Risk Management related notes can be found on pages 70-72 in the section "Notes to the consolidated financial statements" or on our investor website at investors.uponor.com.

Internal audit

Internal audit is an integrated part of Uponor's internal control framework. It supports the Board and the management in following up the effectiveness of internal control and corporate governance.

Internal Audit shall focus on the key risk areas of business. To achieve its objectives, it carries out independent audits of business units and subsidiaries, process reviews, and targeted audits on specific areas, to give the ExCom and the Board assurance that effective controls are in place. Moreover, Internal Audit performs reviews to ensure compliance with internal company policies, guidelines and laws and regulations.

Internal auditing is an independent, objective assurance and consulting activity designed to add value to and improve the Company's operations. It helps the Company accomplish its objectives by bringing a systematic, disciplined approach to evaluate and improve the effectiveness of risk management, control and governance processes.

The purpose, authority, and responsibilities of Internal Audit are defined in the Internal Audit Charter approved by the Audit Committee, to which Internal Audit is subordinated. The annual audit plan is approved by the Audit Committee. A summary of the most significant audit findings is presented to the Audit Committee four times a year. Internal Audit has the obligation and authority to report on any significant audit findings both to the ExCom and to the Audit Committee. Internal Audit has unrestricted access to the Board, and to all Uponor's records, personnel, and physical properties relevant to the performance of its engagement.

In 2018, internal audit focused on group-wide process reviews. Furthermore Uponor's foreign subsidiaries were part of the audit scheme. The audits of subsidiaries concentrated on compliance with group policies, changes in business operations as well as review of business processes, risks and controls.

Administratively, Internal Audit reports to the Chief Financial Officer (CFO). As of 1 January 2014, Uponor has outsourced its internal audit function to Ernst & Young Oy.

External audit

Assisted by the Audit Committee, the Board prepares a proposal on the external auditor and presents it to the AGM for election. The external auditor must be a corporation of authorised public accountants accredited by the Finnish Patent and Registration Office. In co-operation with the auditor, the corporate management organises the audit of the Group's subsidiary companies, as required by applicable local legislation. Auditors of these subsidiary companies report directly to the legal unit they have audited, submitting a copy of each report to the Group's financial administration for inclusion in the Company's audit log.

The 2018 AGM appointed audit firm Deloitte Oy as the Company's auditor for the financial year 2018, with Jukka Vattulainen, Authorised Public Accountant, acting as the principal auditor.

Fees paid to the external auditor for the statutory audit services totalled €923,000 and for audit related and other services €38,000, in total €961,000 for the year 2018.

Insider administration

Uponor Corporation complies with applicable EU regulations, especially the Market Abuse Regulation (596/2014, "MAR"), and any regulation and guidance given by the European Securities Markets Authority ("ESMA"). Further, the company observes Finnish legislation, especially

the Securities Markets Act (746/2012, as amended) and the Finnish Penal Code (39/1889, as amended), including the insider and other guidelines of Nasdaq Helsinki Ltd. and the standards and guidance of the Finnish Financial Supervisory Authority ("FIN-FSA") and other authorities. Uponor also has its own insider policy.

Managers, as defined by MAR, include the members of the Board of Directors and senior executives in the following positions: the president and CEO, the CFO, and other members of the Executive Committee as determined by the President and CEO from time to time. As of 3 July 2016, such managers include the president of Building Solutions – Europe, the president of Building Solutions – North America, and the president of Uponor Infra. MAR requires that each manager and his/her closely associated persons notify the company and FIN-FSA of their transactions in the financial instruments of or linked to the company conducted on his/her own account. These notifications shall be made promptly and no later than three business days after the date of transaction (T+3). Uponor will issue stock exchange releases to disclose information on transactions by managers and their closely associated persons, as specified in MAR.

Since 3 July 2016, Uponor no longer maintains a list of permanent insiders. Instead, all persons involved with insider projects will be listed as project-specific insiders. Project-specific lists will be established and maintained for each project or event constituting inside information, based on a separate decision. All persons working for Uponor, representatives of external entities, shareholders and authorities who have information concerning an insider project or have access to project-specific inside information, as well as persons who are working for the implementation of an insider project, will be entered in a project-specific insider list.

Preparation of periodic disclosure (annual and half-year financial statements, interim reports, financial statements bulletins) or regular access to unpublished financial information is not regarded as an insider project. However, due to the sensitive nature of unpublished information on the company's financial results, the persons determined by the company, based on their position or access rights, to have authorised access to unpublished financial result information are added to a list of Financial Information Recipients.

Uponor applies an absolute trading prohibition (a 'closed window' principle) during a period beginning 30 calendar days before the announcement of each of the periodic financial reports and the year-end report (the financial statements bulletin) and ending at the end of the trading day following the day of publication of such a report. At the minimum, a closed period commences at the end of the reporting period in question. The closed window principle applies to the managers (as defined by MAR) as well as the Financial Information Recipients.

Uponor's internal insider policy is published on the group intranet. All group employees are required to act in accordance with these rules.

The attached table shows the shares owned by the management – including the management as defined by MAR in 2018 (including any holdings of corporations controlled by them).

Shares held by management in 2018 (including also management as defined by MAR)

The Board of Directors

Name	Position	Date	Shares
		1 Jan	37,455
Eloranta, Jorma	Chair of the Board (until 13 March)	13 Mar	37,455
		1 Jan	1,060
Aaltonen-Forsell, Pia	Board member	31 Dec	2,476
		13 Mar	0
Falk, Johan	Board member (from 13 March)	31 Dec	1,277
		1 Jan	3,412
Lengauer Markus	Deputy Chair of the Board	31 Dec	4,828
		13 Mar	0
Lindholm, Casimir	Board member (from 13 March)	31 Dec	1,277
		1 Jan	9,384
Nygren, Eva	Board member	31 Dec	10,661
		1 Jan	39,377
Paasikivi, Annika	Chair of the Board (from 13 March)	31 Dec	41,875
		1 Jan	8,053
Rosendal, Jari	Board member (until 13 March)	13 Mar	8,053

The Executive Committee

Name	Position	Date	Shares
		1 Jan	0
Blomqvist, Minna	ExCom member	31 Dec	2,000
		1 Jan	16,889
Bondestam, Sebastian	ExCom member	31 Dec	18,301
		1 Jan	19,317
Gray, Bill	ExCom member	31 Dec	21,259
		1 Jan	35,547
Luomakoski, Jyri	President and CEO	31 Dec	38,685
		1 Jan	17,788
Roses, Fernando	ExCom member (until 13 April)	13 Apr	19,381
		1 Jan	0
Strandberg, Maija	ExCom member	31 Dec	0
		1 Jan	13,519
Tewes, Jan Peter	ExCom member (until 30 Sept)	30 Sept	15,575

Consolidated statement of comprehensive income

M€	Note	2018	%	2017	%
Net sales	2	1,196.3	100.0	1,170.4	100.0
Cost of goods sold		795.5	66.5	776.3	66.3
Gross profit		400.8	33.5	394.1	33.7
Other operating income	4	16.4	1.4	3.1	0.3
Dispatching and warehousing expenses		33.7	2.8	33.2	2.8
Sales and marketing expenses		191.3	16.0	190.3	16.3
Administration expenses		60.0	5.0	53.4	4.6
Other operating expenses	4	25.5	2.1	24.4	2.1
Expenses		310.5	26.0	301.3	25.7
Operating profit	2	106.7	8.9	95.9	8.2
Financial income	7	14.4	1.2	14.7	1.3
Financial expenses	7	22.9	1.9	20.1	1.7
Share of result in associated companies and joint ventures		-4.7	-0.4	-2.3	-0.2
Profit before taxes		93.5	7.8	88.2	7.5
Income taxes	8	30.3	2.5	22.8	1.9
Profit for the period		63.2	5.3	65.4	5.6
Other comprehensive income					
Items that will not be reclassified subsequently to profit or loss:					
Re-measurements on defined benefit pensions, net of taxes		-1.1		-0.4	
Items that may be reclassified subsequently to profit or loss:					
Translation differences		1.2		-13.2	
Cash flow hedges, net of taxes		1.6		1.2	
Net investment hedges		-0.7		1.7	
Other comprehensive income for the period, net of taxes		1.0		-10.7	
Total comprehensive income for the period		64.2		54.7	
Profit for the period attributable to					
Equity holders of parent company		52.8		60.5	
Non-controlling interest		10.4		4.9	
Total comprehensive income for the period attributable to					
Equity holders of parent company		54.0		50.1	
Non-controlling interest		10.2		4.6	
Earnings per share, €	9	0.72		0.83	
Diluted earnings per share, €		0.72		0.83	

Consolidated balance sheet

M€	Note	31 Dec 2018	%	31 Dec 2017	%
ASSETS					
Non-current assets					
Intangible assets					
Intangible rights		10.5		14.2	
Goodwill		83.5		93.6	
Customer relationship value		3.8		5.9	
Technology		0.5		0.7	
Other intangible assets		2.5		1.6	
Investment in progress		0.2		0.0	
Total intangible assets	10	101.0	12.8	116.0	13.4
Tangible assets					
Land and water areas		13.8		14.3	
Buildings and structures		76.3		77.8	
Machinery and equipment		122.1		112.0	
Other tangible assets		16.2		16.6	
Construction work in progress		29.9		31.5	
Total tangible assets	11	258.3	32.8	252.2	29.1
Securities and long-term investments					
Investments in associated companies and joint ventures	13	13.7		9.5	
Other shares and holdings		0.2		0.2	
Non-current receivables	14	11.8		10.5	
Total securities and long-term investments		25.7	3.3	20.2	2.3
Deferred tax assets	19	9.1	1.2	10.4	1.2
Total non-current assets		394.1	50.1	398.8	46.1
Current assets					
Inventories	15	147.9	18.8	132.7	15.3
Current receivables					
Accounts receivables		168.5		171.8	
Current income tax receivables		8.2		19.5	
Accruals		2.0		3.4	
Other receivables		27.8		32.6	
Total current receivables	16	206.5	26.3	227.3	26.3
Cash and cash equivalents	17	38.1	4.8	107.0	12.4
Total current assets		392.5	49.9	467.0	53.9
Total assets		786.6	100.0	865.8	100.0

M€	Note	31 Dec 2018	%	31 Dec 2017	%
SHAREHOLDERS' EQUITY AND LIABILITIES					
Equity attributable to the owners of the parent company					
	18				
Share capital		146.4		146.4	
Share premium		50.2		50.2	
Other reserves		3.3		1.7	
Translation reserve		-9.7		-10.4	
Retained earnings		54.6		31.8	
Profit for the period		52.8		60.5	
Total equity attributable to the owners of the parent company		297.6	37.8	280.2	32.4
Non-controlling interest	30	56.0		68.2	
Total equity		353.6	45.0	348.4	40.2
Liabilities					
Non-current liabilities					
Interest-bearing liabilities	22	175.6		176.6	
Employee benefit obligations	20	19.6		24.3	
Provisions	21	5.2		7.1	
Deferred tax liabilities	19	12.3		7.9	
Other non-current liabilities		0.0		0.1	
Total non-current liabilities		212.7	27.0	216.0	24.9
Current liabilities					
Interest bearing liabilities	22	1.7		81.9	
Accounts payable		72.0		77.0	
Current income tax liability		6.1		5.8	
Provisions	21	25.0		21.8	
Other current liabilities	23	115.5		114.9	
Total current liabilities		220.3	28.0	301.4	34.8
Total liabilities		433.0	55.0	517.4	59.8
Total shareholders' equity and liabilities		786.6	100.0	865.8	100.0

Consolidated cash flow statement

M€	Note	1 Jan–31 Dec 2018	1 Jan–31 Dec 2017	M€	Note	1 Jan–31 Dec 2018	1 Jan–31 Dec 2017
Cash flow from operations				Cash flow from investments			
Net cash from operations				Cash flow from investments			
Profit for the period		63.2	65.4	Proceeds from disposal of subsidiaries and businesses	3	53.8	-
Adjustments for:				Acquisition of joint ventures		-8.1	-
Depreciation		42.4	39.2	Purchase of fixed assets		-54.0	-63.4
Dividend income		0.0	0.0	Proceeds from sale of fixed assets		0.9	3.7
Income taxes		30.3	22.8	Dividends received		0.2	0.2
Interest income		-0.6	-0.2	Loan granted and repayments		0.0	0.0
Interest expense		3.4	3.8	Cash flow from investments		-7.2	-59.5
Sales gains/losses from the sale of businesses and fixed assets		-15.9	-2.3	Cash flow before financing		72.7	42.0
Share of profit in associated companies		4.7	2.3	Cash flow from financing			
Other cash flow adjustments		-5.0	10.8	Borrowings of debt		0.2	159.5
Net cash from operations		122.5	141.8	Repayments of debt		-80.1	-59.6
Change in net working capital				Change in other short term debt		-0.4	-16.2
Receivables		-16.1	-18.2	Dividends paid		-35.8	-33.6
Inventories		-25.0	1.5	Purchase of own shares		-1.9	-
Non-interest-bearing liabilities		13.0	9.5	Repayment of capital to Infra Oy's non-controlling interest		-22.4	-
Change in net working capital		-28.1	-7.2	Payment of finance lease liabilities		-1.0	-1.1
Income taxes paid		-12.3	-29.5	Cash flow from financing		-141.4	49.0
Interests paid		-2.8	-3.8	Conversion differences for cash and cash equivalents		-0.2	-0.3
Interests received		0.6	0.2	Change in cash and cash equivalents		-68.9	90.7
Cash flow from operations		79.9	101.5	Cash and cash equivalents at 1 January		107.0	16.3
				Cash and cash equivalents at 31 December		38.1	107.0
				Changes according to balance sheet	17	-68.9	90.7

Consolidated statement of changes in shareholders' equity

	Number of shares outstanding (1,000)	Share capital	Share premium	Other reserves	Unrestricted equity	Hedge reserve	Treasury shares	Trans-lation reserve	Retained earnings	Equity attributable to the owners of the parent company	Non-Controlling interest	Total equity
Balance at 1 January 2018	73,148	146.4	50.2	1.7	0.1	-0.1	-0.4	-10.4	92.7	280.2	68.2	348.4
Effect of IFRS 2 amendment									1.0	1.0		1.0
Balance at 1 January 2018	73,148	146.4	50.2	1.7	0.1	-0.1	-0.4	-10.4	93.7	281.2	68.2	349.4
Profit for the period									52.8	52.8	10.4	63.2
Other comprehensive income for the period						1.6		0.7	-1.1	1.2	-0.2	1.0
Dividend paid									-35.8	-35.8		-35.8
Share based incentive plan	14						0.1		0.0	0.1		0.1
Acquisition of own shares	-200						-1.9			-1.9		-1.9
Repayment of capital to Infra Oy's non-controlling interest											-22.4	-22.4
Balance at 31 December 2018	72,962	146.4	50.2	1.7	0.1	1.5	-2.2	-9.7	109.6	297.6	56.0	353.6
Balance at 1 January 2017	73,138	146.4	50.2	1.7	0.1	-1.3	-0.5	0.9	65.8	263.3	63.6	326.9
Profit for the period									60.5	60.5	4.9	65.4
Other comprehensive income for the period						1.2		-11.3	-0.3	-10.4	-0.3	-10.7
Dividend paid									-33.6	-33.6		-33.6
Share based incentive plan	10						0.1		0.3	0.4		0.4
Balance at 31 December 2017	73,148	146.4	50.2	1.7	0.1	-0.1	-0.4	-10.4	92.7	280.2	68.2	348.4

For further information see note 18.

Definitions of key ratios

Return on Equity (ROE), %	=	$\frac{\text{Profit before taxes} - \text{taxes}}{\text{Total equity, average}} \times 100$
Return on Investment (ROI), %	=	$\frac{\text{Profit before taxes} + \text{interest and other financing costs}}{\text{Balance sheet total} - \text{non-interest-bearing liabilities, average}} \times 100$
Solvency, %	=	$\frac{\text{Total equity}}{\text{Balance sheet total} - \text{advance payments received}} \times 100$
Gearing, %	=	$\frac{\text{Net interest-bearing liabilities}}{\text{Total equity}} \times 100$
Net interest-bearing liabilities	=	Interest-bearing liabilities – cash, bank receivables and financial assets excluding restricted cash
Earnings per share (EPS)	=	$\frac{\text{Profit for the period attributable to equity holders of parent company}}{\text{Average number of shares adjusted for share issue in financial period excluding treasury shares}}$
Equity per share ratio	=	$\frac{\text{Equity attributable to the owners of the parent company}}{\text{Number of shares adjusted for share issue at end of year}}$
Dividend per share ratio	=	$\frac{\text{Dividend per share}}{\text{Earnings per share}} \times 100$
Effective dividend yield	=	$\frac{\text{Dividend per share}}{\text{Share price at end of financial period}} \times 100$
Price-Earnings ratio (P/E)	=	$\frac{\text{Share price at end of financial period}}{\text{Earnings per share}}$
Market value of shares	=	Number of shares at end of financial period x last trading price
Average share price	=	$\frac{\text{Total value of shares traded €}}{\text{Total number of shares traded}}$
Gross profit margin	=	$\frac{\text{Gross profit}}{\text{Net sales}} \times 100$
Operating profit margin	=	$\frac{\text{Operating profit}}{\text{Net sales}} \times 100$
Comparable gross profit margin	=	$\frac{\text{Gross profit} - \text{items affecting comparability}^*)}{\text{Net sales}} \times 100$
Comparable operating profit margin	=	$\frac{\text{Operating profit} - \text{items affecting comparability}^*)}{\text{Net sales}} \times 100$

*) Items affecting comparability are exceptional transactions that are not related to normal business operations. The most common items affecting comparability are capital gains and losses, inefficiencies in production related to plant closures, additional write-downs, or reversals of write-downs, expenses due to accidents and disasters, provisions for planned restructurings, environmental matters, penalties, and changes in legislation and legal proceedings. The Group's management exercises its discretion when taking decisions regarding the classification of items affecting comparability.

Notes to the consolidated financial statements

1. Accounting principles

Company profile

Uponor is an international industrial group providing building and municipal infrastructure solutions. Uponor Group's segment structure consists of the following three reporting segments: Building Solutions – Europe, Building Solutions – North America and Uponor Infra. Its segment business risks and profitability factors differ from each other with respect to the market and business environment as well as offering, services and customers. Group management, control and reporting structures are organised according to the business segments.

Uponor Group's parent company is Uponor Corporation, domiciled in Helsinki in the Republic of Finland. Its registered address is:

Uponor Corporation
P.O. Box 37 (street address: Äyritie 20)
FI-01511 Vantaa
Finland
Business ID: 0148731-6
Tel. +358 (0)20 129 211

The Financial Statements will also be available on the company website at <http://investors.uponor.com> and can be ordered from Uponor Corporation at the above-mentioned address.

At its meeting of 13 February 2019, Uponor Corporation's Board of Directors approved the publication of these financial statements. According to the Finnish Limited Liability Companies Act, the shareholders have the opportunity to approve or reject the financial statements at the Annual General Meeting to be held after their publication. Furthermore, the Annual General Meeting can decide on the modification of the financial statements.

Basis of preparation

Uponor Group's consolidated financial statements have been prepared in compliance with the International Financial Reporting Standards (IFRS), including International Accounting Standards (IAS) and their SIC and IFRIC interpretations valid on 31 December 2018. In the Finnish Accounting Act and ordinances based on the provisions of the Act, IFRS refer to the standards and their interpretations adopted in accordance with the procedures as set in regulation (EC) No 1606/2002 of the European Parliament and of the European Council. The consolidated financial statements also include additional information required by the Finnish Accounting Act and the Limited Liability Companies Act. The consolidated financial statements are presented in millions of euros (M€) and are based on the historical cost convention, unless otherwise specified in the accounting principles section below.

Use of estimates

The preparation of consolidated financial statements under IFRS requires the use of estimates and assumptions affecting the reported amounts of assets and liabilities and the disclosure of contingent assets and liabilities on the date of the financial statements, as well as the

reported amounts of income and expenses during the report period. Although these estimates are based on the management's best view of current events and actions, the actual results may ultimately differ from these estimates. In addition, judgement is required in the application of accounting policies.

Consolidation principles

The consolidated financial statements include the parent company, Uponor Corporation, and all companies in which the parent company holds more than half of the voting rights, either directly or through its subsidiaries. Subsidiaries include those companies in which Uponor Corporation has direct or indirect control of over 50 per cent of the voting rights or otherwise has power to govern the financial and operating policies, with the purpose of gaining financial benefit from their operations. Subsidiaries acquired or established during the year are included from the date the Group obtained control. Divested companies have been included up to their date of sale.

Intra-Group shareholdings are eliminated using the acquisition cost method. Accordingly, the assets and liabilities of an acquired company are measured at fair value on the date of acquisition. The excess of the acquisition cost over the fair value of the net assets has been recorded as goodwill. Based on the First-Time-Adoption of IFRS 1, any company acquisitions made prior to the IFRS transition date (1 January 2004) are not adjusted for IFRS, but book value according to Finnish Accounting Standards (FAS) is applied to goodwill amounts. Intra-Group transactions, receivables, liabilities, unrealised gains and dividends between Group companies are eliminated in the consolidated financial statements.

Associated companies are entities over which the Group has 20–50 per cent of the voting rights, or over which the Group otherwise exercises a major influence. Joint ventures are arrangements in which the Group has a joint control with another entity. Holdings in associated companies and joint ventures over which the Group does not have over 50 per cent ownership of the voting rights or over which the Group does not exercise a major influence are included in the consolidated financial statements using the equity method. Accordingly, the share of post-acquisition profits and losses are recognised in the income statement to the extent of the Group's holding in the associated companies and joint ventures. When the Group's share of losses exceeds the carrying amount it is reduced to nil and any recognition of further losses ceases unless the Group has an obligation to fulfil the associated company's or joint ventures' obligations. Joint ventures over which the Group has over 50 per cent ownership of the voting rights or over which the Group otherwise exercises a major influence are included in the consolidated financial statements using the acquisition cost method.

Foreign currency translations and exchange rate differences

Each company translates its foreign currency transactions into its own functional currency, using the rate of exchange prevailing on the transaction date. Outstanding monetary receivables and payables in foreign currencies are stated using the exchange rates on the balance

sheet date. Exchange rate gains and losses on actual business operations are treated as sales adjustment items or adjustment items to materials and services. Exchange rate gains and losses on financial transactions are entered as exchange rate differences in financial income and expenses.

In the consolidated financial statements, the income statements of the Group's foreign subsidiaries are converted into euros using the average exchange rates quoted for the reporting period. All balance sheet items are converted into euros using the exchange rates quoted on the reporting date. The resulting conversion difference and other conversion differences resulting from the conversion of subsidiaries' equity are shown as a separate item under equity. In addition, in the consolidated financial statements, exchange rate differences in the loans granted by the parent company to foreign subsidiaries in replacement of their equity are treated as translation differences. Realised translation differences in relation to the divestment of subsidiaries and the redemption of material shares in subsidiaries are recognised as income or expenses in the consolidated statement of comprehensive income.

Key exchange rates for the euro	At end of period		Average	
	2018	2017	2018	2017
USD	1.1450	1.1993	1.1793	1.1370
SEK	10.2548	9.8438	10.2937	9.6464
CAD	1.5605	1.5039	1.5329	1.4725
DKK	7.4673	7.4449	7.4534	7.4390
NOK	9.9483	9.8403	9.6268	9.3717
PLN	4.3014	4.1770	4.2684	4.2427

Non-current assets held for sale and discontinued operations

Non-current assets held for sale and assets related to discontinued operations are formed once the company, according to a single co-ordinated plan, decides to dispose of a separate significant business unit, whose net assets, liabilities and financial results can be separated operationally and for financial reporting purposes (cash generating unit). Non-current assets held for sale are shown separately in the consolidated balance sheet. Profit or loss from a discontinued operation and gains or losses on its disposal are shown separately in the consolidated statement of comprehensive income. Assets related to non-current assets held for sale and discontinued operations are assessed at book value or, if it is the lower of the two, at fair value. Depreciation from these assets has been discontinued upon the date of classifying assets as non-current assets held for sale and discontinued operations. The Group has no assets classified as non-current assets held for sale or discontinued operations at the end of the financial or a comparable period.

Revenue from contracts with customers

Uponor Group has applied for the first time IFRS 15 Revenue from Contracts with Customers for the period ending 31.12.2018.

IFRS 15 establishes a single comprehensive model for entities to use in accounting for revenue arising from contracts with customers. The core principle of IFRS 15 is that an entity should recognise revenue to depict the transfer of promised goods or services to customers with an amount that reflects the consideration to which the entity expects to

be entitled in exchange for those goods or services. Under IFRS 15, an entity recognises revenue when (or as) a performance obligation is satisfied, i.e., when 'control' of the good or service underlying the particular performance obligations is transferred to the customer. The principles in IFRS 15 are applied using the following five steps:

1. Identify the contract(s) with a customer
2. Identify the performance obligation in the contract
3. Determine the transaction price
4. Allocate the transaction price to the performance obligations in the contract
5. Recognise revenue

This accounting policy highlights the impacts of the new standard on the Group's revenue recognition as well as gives the necessary information for the user of the financial statements to understand the performance obligations, timing of revenue recognition and significant judgments made by the management.

The standard requires entities to exercise judgement, taking into consideration all the relevant facts and circumstances when applying each step of the model to contracts with customers. The standard also specifies the accounting for the incremental costs of obtaining a contract and the costs directly related to fulfilling a contract.

Significant management's judgement has been applied in the following areas:

- Identifying performance obligations in project business
- Assessing the right to payment for performance completed date in project business
- Timing of revenue recognition (sale of goods and rendering of services)
- Right of return (sale of goods)
- Determination of the amount of variable consideration (sale of goods and rendering of services)

These significant management's judgements have been further elaborated in this disclosure.

Uponor Group is in the business of providing systems and solutions for safe drinking water delivery, energy-efficient radiant heating and cooling, and reliable infrastructure. The revenue streams can be divided into two groups: sale of goods and rendering of services including project business. The Group is acting as principal in all the customer contracts as the Group provides the goods and services itself to a customer and controls the specified goods and services before they are transferred to a customer.

Sale of goods

The sale of goods includes products such as pipes, chambers and water tanks. Each good provided to the customer is distinct from the other products provided to the customer and therefore, each good is considered as a separate performance obligation.

The Group recognises the revenue for the goods at a point in time. When determining the timing of revenue recognition, the Group analyses the delivery terms and customer acceptance clauses in order to define the exact timing of the control being transferred. Certain products have a right of return, but the Group has assessed that the returns are unlikely and therefore, they are considered immaterial.

The invoicing frequency is linked to the delivery e.g. invoicing takes place when the goods have been delivered.

Rendering of services including project business

The Group has project deliveries in which Uponor is committed to deliver a complete set of goods and services to the customer, which include e.g. planning and design, overall project management and integration services. When the product provided by Uponor includes both goods and services, the Group accounts for the goods and services in the contract as a single performance obligation.

In case a licensing agreement is needed for the good to be fully operating, the good and the license are accounted for as separate performance obligations, as the customer can benefit from the good on its own or together with other readily available resources.

The Group recognises revenue for rendering of services including project business over time, given that the Group's performance does not create an asset with an alternative use to the Group, the Group has an enforceable right to payment for performance completed to date or the Group's performance creates or enhances an asset that the customer controls as the asset is created or enhanced. Regarding rendering of services including project business, the Group has concluded to have an enforceable right to payment for performance completed to date. The Group applies the input method to recognise revenue for contracts in the project business. The method is used when the outcome of the project can be estimated reliably. The input method is defined as the proportion of the individual project cost incurred to date from the total estimated project costs. In rendering of services including project business, the payment frequency is linked with the milestones of the project.

Variable consideration

The amount of consideration that the Group is entitled to may vary due to items of variable consideration. Relevant variable consideration for the Group includes rebates, returns, refunds, penalties and marketing fees.

Sale of goods may typically include variable considerations such as bonuses, returns and marketing support. The bonuses are fixed in nature and the Group accrues for bonuses on a monthly basis. Returns are recognised as refund liability when Uponor does not expect to be entitled to payment for the products delivered or services rendered. Regarding marketing support, when there is a clear linkage between the payments made and the marketing services received, the marketing support is expensed as marketing fees.

Rendering of services included in the project business may typically include variable consideration e.g. penalties for delay and customer claims. Customer claims and penalties are accounted for as revenue adjustments and the amount of variable consideration to be constrained is estimated regularly.

The Group estimates the amount of variable consideration at the contract inception. The amount of variable consideration is estimated by using either the expected value method or the most likely amount method depending on which method better predicts the amount of consideration to which the Group will be entitled. The Group selects and applies one method consistently for similar types of contracts when estimating the variable consideration amount.

When estimating the amount of variable consideration in the transaction price, the Group considers whether the amount of variable consideration is constrained. In sale of goods, the application of the constraint does not have a significant impact in terms of revenue recognition as variable considerations in the sale of goods are immaterial. In rendering

services including project business, the amount of variable considerations is immaterial and the likelihood is very minor.

Other topics

Warranties. The Group generally provides warranties for general repairs of defects that exist at the time of sale, as required by law. Warranties are thus assurance-type warranties and are accounted for under IAS 37 Provisions, Contingent Liabilities and Contingent Assets.

Cost to obtain a contract. In general, there are no costs that the Group incurs in obtaining a contract to provide goods and services to customers in sale of goods and in rendering services including project business.

Refund liabilities. A refund liability is the obligation to refund some or all the consideration received (or receivable) from the customer and it is measured at the amount that the Group ultimately expects it will have to return to the customer. At the end of each reporting period, the Group updates its assessment on the amount of refund liabilities.

Significant financing component. The Group's contracts with customers do not include significant financing components either in sale of goods or in rendering of services including project business.

Non-cash consideration. The Group's contracts with customers do not include non-cash consideration either in sale of goods or in rendering of services, including project business.

Contract balances

Contract assets and trade receivables. A contract asset is the right to consideration in exchange for goods or services transferred to the customer. If the Group performs by transferring goods or services to the customer before the customer pays consideration, like in the project business or before payment is due, a contract asset is recognised for the earned consideration that is conditional. In case the Group's right to an amount of consideration is unconditional (i.e. only the passage of time is required before payment of the consideration is due) the receivable is presented as trade receivable.

Contract liabilities. A contract liability is the obligation to transfer goods or services to a customer for which the Group has received consideration from the customer. If a customer pays consideration before the Group transfers goods or services to the customer, a contract liability is recognised when the payment is received or when the payment is due (whichever is earlier). Contract liabilities are recognised as revenue when the Group performs under the contract. Contract liabilities may arise within the project business.

Research and development

Research costs are expensed as incurred and are included in the consolidated statement of comprehensive income in other operating expenses. Development costs are expensed as incurred, unless the criteria for capitalising these costs as assets are met. Product development costs are capitalised as intangible assets and are depreciated during the useful life of the asset, if future economic benefits are expected to flow to the entity and certain other criteria, such as the product's technical feasibility and commercial usability, are confirmed. The Group does not have any capitalised development costs.

Employee benefits

The Group's pension schemes comply with each country's local rules and regulations. Pensions are based on actuarial calculations or actual payments to insurance companies. The Group applies defined contribution and defined benefit pension plans.

Within the defined contribution plan, pension contributions are paid directly to insurance companies and, once the contributions have been paid, the Group has no further payment obligations. These contributions are recognised in the income statement for the accounting period during which such contributions are made.

For defined benefit pension plans, the liability is the present value of the defined benefit obligation on the balance sheet date less the fair value of plan assets. The pension obligation is defined using the projected unit credit method. The discount rate applied to calculating the present value of post-employment benefit obligations is determined by the market yields of long-term corporate bonds or government bonds. Costs resulting from the defined benefit pension plans are recognised as expenses for the remaining average period of employment.

Current service cost (benefit expense) and net interest cost on defined benefit obligation (net liability) are recognised in the income statement and presented under employee benefit costs. Re-measurement items on defined benefit plan obligations and plan assets, including actuarial gains and losses and return on plan assets (excluding interest income), are immediately recognised through other comprehensive income and such balances are permanently excluded from the consolidated income statement.

Operating profit

Operating profit is an income statement item, which is calculated by deducting expenses related to operating activities from net sales.

Borrowing costs

Borrowing costs are recognised in the income statement as they incur. Direct transaction expenses due to loans, clearly linked to a specific loan, are included in the loan's original cost on an accrual basis and recognised as interest expenses using the effective interest method. Interest costs on borrowings to finance the construction of assets are capitalised as part of the cost during the period required to prepare and complete the property for its intended use.

Income taxes

Income taxes in the consolidated statement of comprehensive income comprise taxes based on taxable income recognised for the period by each Group company on an accrual basis, according to local tax regulations, including tax adjustments from the previous periods and changes in deferred tax. Deferred tax assets or liabilities are calculated, using the liability method, on temporary differences arising between the tax bases of assets and liabilities and their carrying amounts in the financial statements, using the tax rate approved on the balance sheet date. Deferred tax assets are recognised to the extent that it appears probable that future taxable profit will be available, against which temporary differences can be utilised.

Intangible assets

Goodwill

Goodwill represents future economic benefits arising from assets that are not capable of being individually identified and separately recognised by the Group. Goodwill represents the excess of the cost of an acquisition over the fair value of the net assets of the acquired company on the date of acquisition. Goodwill is allocated to the business segments. Goodwill is not amortised, but is tested for impairment annually. Gains and losses on the disposal of a Group entity include any goodwill relating to the entity sold.

Other intangible assets

Other intangible assets include trademarks, patents, copyrights, software licences and customer relations. Intangible assets are recognised in the balance sheet at historical costs less accumulated depreciation, according to the expected useful life and any impairment losses.

Property, plant and equipment

Group companies' property, plant and equipment are stated at historical cost less accumulated depreciation, according to the expected useful life and any impairment losses. Interest costs on borrowings to finance the construction of these assets are capitalised as part of the cost during the period required to prepare and complete the property for its intended use.

Ordinary repair and maintenance costs are charged to the income statement during the financial period in which they are incurred. The cost of major renovations is included in the asset's carrying amount when it is probable that the Group will incur future economic benefits in excess of the originally assessed standard of performance of the existing asset.

Gains or losses on the disposal, divestment or removal from use of property, plant and equipment are based on the difference between the net gains and the balance sheet value. Gains are shown within other operating income and losses under other operating expenses.

Depreciations

Group companies' intangible assets and property, plant and equipment are stated at historical cost less accumulated straight-line depreciation, according to their expected useful life and any impairment losses. Land is not depreciated, as it is deemed to have an indefinite life, but depreciation is otherwise based on estimated useful lives as follows:

	Years
Buildings	20–40
Production machinery and equipment	8–12
Other machinery and equipment	3–15
Office and outlet furniture and fittings	5–10
Transport equipment	5–7
Intangible assets	3–10

The residual value and useful life of assets are reviewed on each balance sheet date and, if necessary, adjusted to reflect any changes in expectations of financial value.

Government grants

Any grants received for the acquisition of intangible or tangible assets are deducted from the asset's acquisition cost and recorded on the income statement to reduce the asset's depreciation. Other grants are recognised as income for the periods during which the related expenses are incurred. Such grants are shown as deductions from expenses related to the target of the grant.

Impairment

The balance sheet values of assets are assessed for impairment on a regular basis. Should any indication of an impaired asset exist, the asset's recoverable amount will be assessed. The asset's recoverable amount is its net selling price less any selling expenses, or its value in use, whichever is higher. The value in use is determined by reference to the discounted future net cash flow expected from the asset. Discount rates correspond to the cash generating unit's average return on investment before taxes. Impairment is measured at the level of cash generating units, which is the lowest level that is primarily independent of other units and whose cash flows can be distinguished from other cash flows.

Whenever the asset's carrying amount exceeds its recoverable amount, it is impaired and the resulting impairment loss is recognised in the income statement. An impairment of property, plant and equipment and other intangible assets, excluding goodwill, will be reversed if, and only if, there has been a change in the estimates used to determine the asset's recoverable amount since the last impairment loss was recognised. Impairment is not reversed over the balance sheet value that existed before the recognition of impairment losses in the previous financial periods. Any impairment loss on goodwill is not reversed.

Goodwill is assessed for impairment at least annually, or if any indication of impairment exists, more often.

Leases

Lease liabilities, which expose the Group to the risks and rewards inherent in holding such leased assets, are classified as finance leases. These are recognised as tangible assets on the balance sheet and measured at the lesser of the fair value of the leased property at the inception of the lease or the present value of the minimum lease payments. Similarly, lease obligations, from which financing expenses are deducted, are included in interest bearing liabilities. Financing interests are recognised in the consolidated statement of comprehensive income during the lease period. An asset acquired under finance lease is depreciated over its useful life or within the shorter lease term.

Leases, which expose the lessor to the risks and rewards inherent in holding such leases, are classified as other leases. These rents are recognised as expenses during the lease period.

The assets leased by the Group, where the lessee bears the risks and rewards inherent in holding such leases, are treated as finance leases and recognised as receivables on the balance sheet at their present value. The Group has no finance lease receivables.

Inventories

Inventories are stated at the lower of cost or net realisable value, based on the FIFO principle. The net realisable value is the estimated selling price in the ordinary course of business, less the costs of completion and sale. In addition to the cost of materials and direct

labour, an appropriate proportion of production overheads is included in the inventory value of finished products and work in progress.

Provisions

Provisions are recognised when the Group has a present legal or constructive obligation as a result of past events, if it is probable that an outflow of resources will be required to settle the obligation or if the settlement of an obligation will cause a legal loss and a reliable estimate of the amount of obligation can be made. Provisions can include inter alia environmental provisions, warranty provisions, restructuring costs and onerous contracts. Changes in provisions are included in relevant expenses on the consolidated statement of comprehensive income. The amount of provisions is reviewed on every balance sheet date and the amounts are revised to correspond to the best estimate at that moment.

Contingent assets and liabilities

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

Cash and cash equivalents

Cash and cash equivalents include cash in hand, deposits held at bank and other short-term, highly liquid investments, whose maturity does not exceed three months. Cash and cash equivalents are carried in the balance sheet at cost. The bank account credit limit in use is recognised under current interest-bearing liabilities.

Financial assets

Financial assets are classified as follows: amortized cost, fair value through other comprehensive income and fair value through profit and loss. Sales and purchase of financial assets are recognised at their trading date.

Fair value through profit and loss include financial assets held for trading and measured at fair value. Financial assets at fair value through profit and loss have been acquired principally for the purpose of generating a profit from short-term fluctuations in market prices. Derivative instruments, for which hedge accounting is not applied, are included in financial assets at fair value through profit and loss. Interest and currency derivatives, for which no hedge accounting is applied, are recognised in the balance sheet at historical cost and valued at fair value on each balance sheet date. Fair value is determined using market prices on the balance sheet date, or the present value of estimated future cash flows. Changes in the fair value of financial assets at fair value through profit and loss, and unrealised and realised gains and losses, are included in financial income and expenses in the period in which they occur. Fair value through profit and loss are presented under the other current assets in the balance sheet.

Amortized cost items are non-derivative assets with fixed or determinable payment dates that are not quoted in the active markets or held for trading purposes. Loans and receivables are measured

at amortised cost. Accounts receivable are carried at expected fair value, which is the original invoice amount less the provision made for impairment of these receivables. A provision for impairment of accounts receivable is established when there is objective evidence that the Group will not be able to collect all amounts due according to the original terms of receivables. Significant financial difficulties of the debtor, the probable bankruptcy of the debtor or default in payments are considered as probable indicators of the impairment of accounts receivable. Impairment of a loan receivable is assessed with the same criteria as an impairment of accounts receivable.

Fair value through other comprehensive income assets consist of holdings in listed and non-listed companies and investments. Fair value through other comprehensive assets are measured at fair value based on market prices on the balance sheet date, or using the net present value method of cash flows, or another revaluation model. If the fair value of a holding or investment cannot be measured reliably, it will be measured at cost. Changes in the fair value of other comprehensive income assets are recognised in the fair value reserve under shareholders' equity, taking tax consequences into account. Changes in the fair value will be re-entered from shareholders' equity into the consolidated statement of comprehensive income when the asset is disposed of or has lost its value to the extent that an impairment loss must be recognised.

Financial liabilities

Financial liabilities at fair value through profit and loss are measured at their fair value. This group includes those derivatives for which hedge accounting is not applied and whose fair value is negative.

Other financial liabilities are initially measured at fair value and subsequently measured at amortised cost using the effective interest rate method. Transaction costs are included in the original book value of financial liabilities. Other financial liabilities include non-current and current interest-bearing liabilities and accounts payable.

Derivative contracts and hedge accounting

Financial derivatives are used for hedging purposes and are initially recognised in the balance sheet at fair value and are subsequently re-measured at fair value on each reporting period's balance sheet date. At the contract date derivatives are classified as either cash flow hedges, hedges of net investments in foreign entities or hedges that hedge accounting is not applied to. For derivatives that hedge accounting is not applied to the changes in fair value are recognised under financial items in the consolidated statement of comprehensive income. The fair values of derivatives are determined on the basis of publicly quoted market prices.

Cash flow hedging is applied to electricity derivatives and interest rate derivatives. Net investment hedging is applied to certain currency derivatives that hedge foreign currency risk in internal loans classified as net investments in foreign entities. Hedge programmes are documented according to the requirements of IFRS 9.

Fair value changes of derivatives, which are designated as cash flow hedges, are recognised in other comprehensive income in the hedge reserve to the extent that the hedge is effective. The spot price part of the fair value changes of currency derivatives designated as hedges of net investment in foreign entities, are recognised in other comprehensive income in the translation differences whereas the

interest rate differential part of the fair value changes is recognised under financial items. Accumulated fair value changes in other comprehensive income are released into the consolidated statement of comprehensive income in the period during which the hedged cash flow affects the result, while electricity derivatives are recognised under cost of goods sold and interest rate derivatives under financial items.

The ineffective portion of the fair value change of cash flow hedges is recognised under cost of goods sold for electricity derivatives and under financial items for interest rate derivatives.

Share-based payments – Management incentive scheme

The Group adopted the amendments to IFRS 2 as of 1 January 2018. The amendments concern share-based payment arrangements with a 'net settlement feature' where tax law or regulation requires an entity to withhold a specified number of equity instruments, equal to the monetary value of the employee's tax obligation, to meet the employee's tax liability, which is then remitted to the tax authority. Such arrangements are classified and recognised as equity-settled in its entirety, provided that the share-based payment would have been classified as equity-settled had it not included the net settlement feature. In estimating the fair value of a cash-settled share-based payment, the accounting for the effects of vesting and non-vesting conditions should follow the same approach as for equity-settled share-based payments.

For equity-settled share-based payment transactions, an increase corresponding to the expensed amount is recorded in equity.

Treasury shares

Treasury shares are presented in the financial statements as a reduction in shareholders' equity. Treasury shares are taken into account in calculating key figures and ratios according to IAS 33.

Dividends

Dividends proposed by the Board of Directors are not recognised in the financial statements until their proposal is approved by the shareholders in the Annual General Meeting.

Accounting policies requiring consideration by management and essential uncertainty factors associated with estimates

Estimates and assumptions regarding the future must be made during the preparation of the financial statements, and the outcome may differ from the estimates and assumptions. Furthermore, the application of accounting principles requires consideration.

Group management needs to make decisions regarding the selection and application of accounting principles. These judgements are in particular required in those cases in which the IFRS in force provide the opportunity to choose between various accounting, valuation or presentation methods.

The estimates made in connection with preparing the financial statements reflect the management's best view at the time of the closing of the accounts. These estimates are affected by historical experience and assumptions regarding future developments, which are regarded as well-founded at the time of closing the accounts. On a regular basis, the Group monitors the realisation of these estimates and assumptions through internal and external information sources.

Any changes in estimates and assumptions are recognised in the financial statements for the period during which such corrections are made, and all subsequent financial periods.

Estimates have been used in determining the size of items reported in the financial statements, including, among other things, the realisability of certain asset items, such as deferred tax assets and other receivables, the economic useful life of property, plant and equipment, provisions, pension liabilities and impairment on goodwill.

From the Group's perspective, the most significant uncertainty factors are related to impairment testing on goodwill and the defined benefit-based pension obligations. The application of the related accounting policies requires the use of estimates and assumptions that also have a large impact. Uncertainty factors in connection with impairment testing on goodwill relate to the assumptions made on future cash flows and determining the discount rate. The Group's weighted average capital cost rate (WACC), determined by reporting segment, is used as the discount rate in impairment tests. The book value of the defined benefit-based pension obligation is based on actuarial calculations, which in turn are based on the assumptions and estimates of a discount rate used for assessing plan assets and obligations at their current value, the expected rate of return on plan assets and developments in inflation, salary and wage levels.

New and amended IFRS Standards that are effective for the current year

The following revised IFRSs have been adopted from 1 January 2018 in these consolidated financial statements:

Impact of initial application of IFRS 9 Financial Instruments

IFRS 9 Financial Instruments (effective in the EU for annual periods beginning on or after 1 January 2018). IFRS 9 issued in November 2009 introduced new requirements for the classification and measurement of financial assets. IFRS 9 was subsequently amended in October 2010 to include requirements for the classification and measurement of financial liabilities and for derecognition, and in November 2013 to include the new requirements for general hedge accounting. Another revised version of IFRS 9 was issued in July 2014 mainly to include a) impairment requirements for financial assets and b) limited amendments to the classification and measurement requirements by introducing a 'fair value through other comprehensive income' (FVTOCI) measurement category for certain simple debt instruments.

Key requirements of IFRS 9:

- all recognised financial assets that are within the scope of IFRS 9 are required to be subsequently measured at amortised cost or fair value. Specifically, debt investments that are held within a business model whose objective is to collect the contractual cash flows, and that have contractual cash flows that are solely payments of principal and interest on the principal outstanding are generally measured at amortised cost at the end of subsequent accounting periods. Debt instruments that are held within a business model whose objective is achieved both by collecting contractual cash flows and selling financial assets, and that have contractual terms that give rise on specified dates to cash flows that are solely payments of principal and interest on the principal amount outstanding, are generally measured at FVTOCI. All other

debt investments and equity investments are measured at their fair value at the end of subsequent accounting periods. In addition, under IFRS 9, entities may make an irrevocable election to present subsequent changes in the fair value of an equity investment (that is not held for trading nor contingent consideration recognised by an acquirer in a business combination to which IFRS 3 applies) in other comprehensive income, with only dividend income generally recognised in profit or loss.

- with regard to the measurement of financial liabilities designated as at fair value through profit or loss, IFRS 9 requires that the amount of change in the fair value of a financial liability that is attributable to changes in the credit risk of that liability is presented in other comprehensive income, unless the recognition of such changes in other comprehensive income would create or enlarge an accounting mismatch in profit or loss. Changes in fair value attributable to a financial liability's credit risk are not subsequently reclassified to profit or loss. Under IAS 39, the entire amount of the change in the fair value of the financial liability designated as fair value through profit or loss is presented in profit or loss.
- in relation to the impairment of financial assets, IFRS 9 requires an expected credit loss model, as opposed to an incurred credit loss model under IAS 39. The expected credit loss model requires an entity to account for expected credit losses and changes in those expected credit losses at each reporting date to reflect changes in credit risk since initial recognition. In other words, it is no longer necessary for a credit event to have occurred before credit losses are recognised.
- the new general hedge accounting requirements retain the three types of hedge accounting mechanisms currently available in IAS 39. Under IFRS 9, greater flexibility has been introduced to the types of transactions eligible for hedge accounting, specifically broadening the types of instruments that qualify for hedging instruments and the types of risk components of non-financial items that are eligible for hedge accounting. In addition, the effectiveness test has been overhauled and replaced with the principle of an 'economic relationship'. Retrospective assessment of hedge effectiveness is also no longer required. Enhanced disclosure requirements about an entity's risk management activities have also been introduced.

Classification and measurement

All financial assets and financial liabilities are to be measured on the same bases as adopted under IAS 39. According to IFRS 9 financial assets are classified in three measurement categories: fair value through other comprehensive income, at amortised cost, and fair value through profit or loss instead of IAS 39's four categories. The classification depends on the company's business model and cash flow characteristics in financial assets.

IFRS 9 transition table, valuation classes

Financial assets	IAS 39	IFRS 9
Electricity derivatives	Derivative contracts, under hedge accounting	Fair value through other comprehensive income
Other derivative contracts	Derivative contracts, under hedge accounting	Fair value through other comprehensive income
Other derivative contracts	Fair value through profit or loss	Fair value through profit or loss
Other non-current receivables	Loans and receivables	Amortised cost
Accounts receivable and other receivables	Loans and receivables	Amortised cost
Cash and cash equivalents	Loans and receivables	Amortised cost
Other shares and holdings	Available-for-sale financial assets	Amortised cost

Financial liabilities	IAS 39	IFRS 9
Electricity derivatives	Derivative contracts, under hedge accounting	Fair value through other comprehensive income
Other derivative contracts	Derivative contracts, under hedge accounting	Fair value through other comprehensive income
Other derivative contracts	Fair value through profit or loss	Fair value through profit or loss
Accounts payable and other liabilities	Amortised cost	Amortised cost
Interest bearing liabilities	Amortised cost	Amortised cost

Impairment

Financial assets measured at amortised cost, listed redeemable notes that will be carried at FVTOCI under IFRS 9, finance lease receivables, amounts due from customer under construction contracts, and financial guarantee contracts will be subject to the impairment provisions of IFRS 9.

The Group applies the simplified approach to recognize lifetime expected credit losses for its trade receivables as required or permitted by IFRS 9.

Hedge accounting

As the new hedge accounting requirements will align more closely with the Group's risk management policies, with generally more qualifying hedging instruments and hedged items, an assessment of the Group's current hedging relationships indicates that they will qualify as continuing hedging relationships upon application of IFRS 9. Additionally, the requirements for hedge effectiveness testing will become easier. Similar to the Group's current hedge accounting policy, the management does not intend to exclude the forward element of foreign currency forward contracts from designated hedging relationships. IFRS 9 requires the economic relationship between the hedged item and the hedging instrument and same hedge ratio that is actually used in risk management. Moreover, the Group has already elected to basis adjust non-financial hedged items with gains/losses arising from effective cash flow hedges under IAS 39, which is mandatory under IFRS 9. Documentation requirements differ from IAS 39 requirements, but are still mandatory under IFRS 9.

Nevertheless, under IFRS 9, basis adjustments are not considered a reclassification adjustment and therefore they would not affect other comprehensive income. Currently, gains/losses arising from effective cash flow hedges that are subject to basis adjustments are presented in other comprehensive income as amounts that may be subsequently reclassified to profit or loss.

Impact of application of IFRS 15 Revenue from Contracts with Customers

Uponor Group has applied for the first time IFRS 15 Revenue from Contracts with Customers for the period ending 31.12.2018 using the full retrospective application method. Based on the analysis performed by the Group, no significant accounting changes were identified. Therefore, there are no changes impacting the comparative information and no restatements have been made in the Group's financial statements.

IFRS 15 establishes a single comprehensive model for entities to use in accounting for revenue arising from contracts with customers. IFRS 15 has superseded the current revenue recognition guidance including IAS 18 Revenue, IAS 11 Construction Contracts and the related interpretations. The core principle of IFRS 15 is that an entity should recognise revenue to depict the transfer of promised goods or services to customers with an amount that reflects the consideration to which the entity expects to be entitled in exchange for those goods or services. Under IFRS 15, an entity recognises revenue when (or as) a performance obligation is satisfied, i.e., when 'control' of the good or service underlying the particular performance obligations is transferred to the customer. The principles in IFRS 15 are applied using the following five steps:

1. Identify the contract(s) with a customer
2. Identify the performance obligation in the contract
3. Determine the transaction price
4. Allocate the transaction price to the performance obligations in the contract
5. Recognise revenue

The Group is in the business of providing systems and solutions for safe drinking water delivery, energy-efficient radiant heating and cooling, and reliable infrastructure. The revenue streams can be divided into two groups: sale of goods and rendering of services including project business. The Group is acting as principal in all the customer contracts as the Group provides the goods and services itself to a customer and controls the specified goods and services before they are transferred to a customer.

Sale of goods

The sale of goods includes products such as pipes, chambers and water tanks. Each good provided to the customer is distinct from the other products provided to the customer and therefore, each good is considered as a separate performance obligation.

The Group recognises the revenue for the goods at a point in time. When determining the timing of revenue recognition, the Group analyses the delivery terms and customer acceptance clauses in order to define the exact timing of the control being transferred. Certain products have a right of return, but the Group has assessed that the returns are unlikely and therefore, they are considered immaterial.

The invoicing frequency is linked to the delivery e.g. invoicing takes place when the goods have been delivered.

The adoption of IFRS 15 did not have any impact on the performance obligations identified, determination of the transaction price or on the timing of revenue recognition.

Rendering of services including project business

The Group has project deliveries in which Uponor is committed to deliver a complete set of goods and services to the customer, which include e.g. planning and design, overall project management and integration services. When the product provided by Uponor includes both goods and services, the Group accounts for the goods and services in the contract as a single performance obligation.

In case a licensing agreement is needed for the good to be fully operating, the good and the license are accounted for as separate performance obligations, as the customer can benefit from the good on its own or together with other readily available resources.

The Group recognises revenue for rendering of services including project business over time, given that the Group's performance does not create an asset with an alternative use to the Group, the Group has an enforceable right to payment for performance completed to date or the Group's performance creates or enhances an asset that the customer controls as the asset is created or enhanced. Regarding rendering of services including project business, the Group has concluded to have an enforceable right to payment for performance completed to date. The Group applies the input method to recognise revenue for contracts in the project business. The method is used when the outcome of the project can be estimated reliably. The input method is defined as the proportion of the individual project cost incurred to date from the total estimated project costs. In rendering of services including project business, the payment frequency is linked with the milestones of the project.

The adoption of IFRS 15 did not have any impact on the identified performance obligations, determination of the transaction price or on the timing of revenue recognition.

The accounting policy applied starting 2018 is described more specific in Accounting policies.

In the current year, the Group has applied a number of amendments to IFRS Standards and Interpretations issued by the International Accounting Standards Board (IASB) that are effective for an annual period that begins on or after 1 January 2018. Their adoption has not had any material impact on the disclosures or on the amounts reported in these financial statements.

IFRS 2 (amendments) Classification and Measurement of Share-based Payment Transactions

The Group has adopted the amendments to IFRS 2 for the first time in the current year. The amendments clarify the following:

- 1) In estimating the fair value of a cash-settled share-based payment, the accounting for the effects of vesting and non-vesting conditions should follow the same approach as for equity-settled share-based payments.
- 2) Where tax law or regulation requires an entity to withhold a specified number of equity instruments equal to the monetary value of the employee's tax obligation to meet the employee's tax liability which is then remitted to the tax authority (typically in cash), i.e. the share-based payment arrangement has a 'net settlement feature', such an arrangement should be classified as equity-settled in its entirety, provided that the share-based payment would have been classified as equity-settled had it not included the net settlement feature.
- 3) A modification of a share-based payment that changes the transaction from cash-settled to equity-settled should be accounted for as follows:
 - (i) the original liability is derecognised;
 - (ii) the equity-settled share-based payment is recognised at the modification date fair value of the equity instrument granted to the extent that services have been rendered up to the modification date; and
 - (iii) any difference between the carrying amount of the liability at the modification date and the amount recognised in equity should be recognised in profit or loss immediately

As a result of the adoption of these amendments, the Group has derecognised a liability of € 1.0 million as of 1 January 2018 and recognised on the same date the new equity-settled share-based payment of € 1.0 million in retained earnings.

Annual Improvements to IFRS Standards 2014–2016 Cycle: Amendments to IAS 28 Investments in Associates and Joint Ventures

The Group has adopted the amendments to IAS 28 included in the Annual Improvements to IFRS Standards 2014–2016 Cycle for the first time in the current year. The amendments clarify that the option for a venture capital organisation and other similar entities to measure investments in associates and joint ventures at FVTPL is available separately for each associate or joint venture, and that election should be made at initial recognition.

In respect of the option for an entity that is not an investment entity (IE) to retain the fair value measurement applied by its associates and joint ventures that are IEs when applying the equity method, the amendments make a similar clarification that this choice is available for each IE associate or IE joint venture.

IFRIC 22 Foreign Currency Transactions and Advance Consideration

IFRIC 22 addresses how to determine the 'date of transaction' for the purpose of determining the exchange rate to use on initial recognition of an asset, expense or income, when consideration for that item has been paid or received in advance in a foreign currency which resulted

in the recognition of a non-monetary asset or non-monetary liability (for example, a non-refundable deposit or deferred revenue).

The Interpretation specifies that the date of transaction is the date on which the entity initially recognises the non-monetary asset or non-monetary liability arising from the payment or receipt of advance consideration. If there are multiple payments or receipts in advance, the Interpretation requires an entity to determine the date of transaction for each payment or receipt of advance consideration.

New and revised IFRS Standards in issue but not yet effective

At the date of authorisation of these financial statements, the Group has not applied the following new and revised IFRS Standards that have been issued but are not yet effective. The Group does not expect that the adoption of the Standards listed below will have a material impact on the financial statements of the Group in future periods, except as noted below:

IFRS 16 Leases

IFRS 16 is effective for annual periods beginning on or after 1 January 2019 and it provides a comprehensive model for the identification of lease arrangements and their treatment in the financial statements of both lessees and lessors. When becoming effective, IFRS 16 will supersede the current guidance, including IAS 17 Leases and the related interpretations. Uponor will adopt the new standard as of January 1, 2019 using the modified retrospective application method which means that the comparatives will not be adjusted for the period ending 31.12.2018.

IFRS 16 replaces IAS 17 and requires that essentially all leasing contracts shall be recognized on the balance sheet. For leases previously classified as operating leases under IAS 17, Uponor will recognize a lease liability measured at the present value of the remaining lease payments, discounted using the lessee's incremental borrowing rate at the date of initial application. In transition, 1 January 2019, Uponor measures the right-of-use asset on a lease-by-lease basis at an amount equal to lease liability. In the profit and loss statement, Uponor will recognize depreciation expenses and interest expenses instead of lease expenses.

The right-of-use assets of the Group consist mainly of real estate (offices and warehouses including land areas), cars and forklifts. The Group has not identified any service-type contracts that would include identified right-of-use asset. In addition, Uponor has assets leased with finance lease contracts. These assets have been capitalized in the balance sheet already earlier and the valuation and presentation of these lease contracts will not change in the transition to IFRS 16.

The standard includes two practical expedients, relating to short-term leases and low value assets. Short-term leases are leases for which the lease period is 12 months or less and low value assets are leases for which the underlying asset is of low value. Uponor has decided to apply these two practical expedients and will thus not apply IFRS 16 to the short term leases and low value assets. In addition, Uponor will not apply IFRS 16 to intangible assets.

In accordance with IFRS 16, the lessee shall determine the lease term as the non-cancellable period of a lease adjusted with any option to extend or terminate the lease, if the use of such an option is reasonably certain. Uponor has analysed the expected lease term and

thereby assessed whether it is reasonably certain that any options to extend or terminate the agreements will be exercised for the lease contracts. The identified lease agreements are either ongoing contracts or fixed term contracts. The management has given their most accurate estimate for the expected lease period on a contract by contract basis. The expected lease term is based on management's view of a period that can be estimated with a relative certainty. The expected lease term is supported by a contract by contract analysis of the actual expected lease term of the assets including analysis of the additional costs caused by the termination of the contract. Other on-going contracts are classified as short-term leases as the contracts are assessed to be terminated within the following 12 months.

Furthermore, Uponor has decided not to apply IFRS 16 to contracts for which the lease term ends within 12 months of the date of initial application e.g. during 2019 based on the transition relieves provided by the standard.

Under IFRS 16, the lessee values the lease liability at the inception of the contract by discounting the future minimum lease payments to the present value. The discount rate used is either the interest rate implicit in the lease or the incremental borrowing rate. Since the interest rate implicit in the lease is not readily available in most of Uponor's lease contracts, the future minimum lease payments are discounted using Uponor's incremental borrowing rate.

The incremental borrowing rate is defined as the interest rate that the lessee would expect to borrow at over a similar term and with a similar security on the right-of-use asset. Uponor has determined the discount rate taking into consideration the lease term as of 31.12.2018 and the financial environment of the contract.

The impact of the IFRS 16 adoption on Uponor's liabilities as of 1 January 2019 is estimated to amount to approximately EUR 45 million, increasing the amount of the lease liabilities. The amount of right-of-use assets will increase approximately by the same amount.

Due to the adoption of IFRS 16, the Group's operating profit for 2019 will slightly improve, while its interest expense will increase. This is due to the change in the accounting for expenses of leases that were classified as operating leases under IAS 17.

Amendments to IFRS 9 Prepayment Features with Negative Compensation

The amendments to IFRS 9 clarify that for the purpose of assessing whether a prepayment feature meets the SPPI condition, the party exercising the option may pay or receive reasonable compensation for the prepayment irrespective of the reason for prepayment. In other words, prepayment features with negative compensation do not automatically fail SPPI.

The amendment applies to annual periods beginning on or after 1 January 2019, with earlier application permitted. There are specific transition provisions depending on when the amendments are first applied, relative to the initial application of IFRS 9.

The Group does not anticipate that the application of the amendments in the future will have an impact on the Group's consolidated financial statements.

Amendments to IAS 28 Long-term Interests in Associates and Joint Ventures

The amendment clarifies that IFRS 9, including its impairment requirements, applies to long-term interests. Furthermore, in applying IFRS 9 to long-term interests, an entity does not take into account adjustments to their carrying amount required by IAS 28 (i.e., adjustments to the carrying amount of long-term interests arising from the allocation of losses of the investee or assessment of impairment in accordance with IAS 28).

The amendments apply retrospectively to annual reporting periods beginning on or after 1 January 2019. Earlier application is permitted. Specific transition provisions apply depending on whether the first-time application of the amendments coincides with that of IFRS 9. The amendments have not yet been endorsed for use in the EU.

The Group does not anticipate that the application of the amendments in the future will have an impact on the Group's consolidated financial statements.

Annual Improvements to IFRS Standards 2015–2017 Cycle Amendments to IFRS 3 Business Combinations, IFRS 11 Joint Arrangements, IAS 12 Income Taxes and IAS 23 Borrowing Costs

IAS 12 Income Taxes. The amendments clarify that an entity should recognise the income tax consequences of dividends in profit or loss, other comprehensive income or equity according to where the entity originally recognised the transactions that generated the distributable profits. This is the case irrespective of whether different tax rates apply to distributed and undistributed profits.

IAS 23 Borrowing Costs. The amendments clarify that if any specific borrowing remains outstanding after the related asset is ready for its intended use or sale, that borrowing becomes part of the funds that an entity borrows generally when calculating the capitalisation rate on general borrowings.

IFRS 3 Business Combinations. The amendments to IFRS 3 clarify that when an entity obtains control of a business that is a joint operation, the entity applies the requirements for a business combination achieved in stages, including remeasuring its previously held interest (PHI) in the joint operation at fair value. The PHI to be remeasured includes any unrecognised assets, liabilities and goodwill relating to the joint operation.

IFRS 11 Joint Arrangements. The amendments to IFRS 11 clarify that when a party that participates in, but does not have joint control of, a joint operation that is a business obtains joint control of such a joint operation, the entity does not remeasure its PHI in the joint operation.

All the amendments are effective for annual periods beginning on or after 1 January 2019 and generally require prospective application. Earlier application is permitted. The amendments have not yet been endorsed for use in the EU.

The Group does not anticipate that the application of the amendments in the future will have an impact on the Group's consolidated financial statements.

Amendments to IAS 19 Employee Benefits Plan Amendment, Curtailment or Settlement

The amendments clarify that the past service cost (or of the gain or loss on settlement) is calculated by measuring the defined benefit liability (asset) using updated assumptions and comparing benefits offered and plan assets before and after the plan amendment (or curtailment or settlement) but ignoring the effect of the asset ceiling (that may arise when the defined benefit plan is in a surplus position). IAS 19 is now clear that the change in the effect of the asset ceiling that may result from the plan amendment (or curtailment or settlement) is determined in a second step and is recognised in the normal manner in other comprehensive income.

The paragraphs that relate to measuring the current service cost and the net interest on the net defined benefit liability (asset) have also been amended. An entity will now be required to use the updated assumptions from this remeasurement to determine current service cost and net interest for the remainder of the reporting period after the change to the plan. In the case of the net interest, the amendments make it clear that for the period post plan amendment, the net interest is calculated by multiplying the net defined benefit liability (asset) as remeasured under IAS 19.99 with the discount rate used in the remeasurement (also taking into account the effect of contributions and benefit payments on the net defined benefit liability (asset)).

The amendments are applied prospectively. They apply only to plan amendments, curtailments or settlements that occur on or after the beginning of the annual period in which the amendments to IAS 19 are first applied. The amendments to IAS 19 must be applied to annual periods beginning on or after 1 January 2019, but they can be applied earlier if an entity elects to do so. The amendments have not yet been endorsed for use in the EU.

The Group does not anticipate that the application of the amendments in the future will have an impact on the Group's consolidated financial statements.

IFRS 10 Consolidated Financial Statements and IAS 28 (amendments) Sale or Contribution of Assets between an Investor and its Associate or Joint Venture

The amendments to IFRS 10 and IAS 28 deal with situations where there is a sale or contribution of assets between an investor and its associate or joint venture. Specifically, the amendments state that gains or losses resulting from the loss of control of a subsidiary that does not contain a business in a transaction with an associate or a joint venture that is accounted for using the equity method, are recognised in the parent's profit or loss only to the extent of the unrelated investors' interests in that associate or joint venture. Similarly, gains and losses resulting from the remeasurement of investments retained in any former subsidiary (that has become an associate or a joint venture that is accounted for using the equity method) to fair value are recognised in the former parent's profit or loss only to the extent of the unrelated investors' interests in the new associate or joint venture.

The effective date of the amendments has yet to be set by the IASB; however, earlier application of the amendments is permitted. The directors of the Company anticipate that the application of these amendments may have an impact on the Group's consolidated financial statements in future periods should such transactions arise.

The Group anticipate that the application of the amendments may have an impact on the Group's consolidated financial statements in the future if such transactions are performed.

IFRIC 23 Uncertainty over Income Tax Treatments

IFRIC 23 sets out how to determine the accounting tax position when there is uncertainty over income tax treatments. The Interpretation requires an entity to:

- determine whether uncertain tax positions are assessed separately or as a group; and
- assess whether it is probable that a tax authority will accept an uncertain tax treatment used, or proposed to be used, by an entity in its income tax filings:
 - If yes, the entity should determine its accounting tax position consistently with the tax treatment used or planned to be used in its income tax filings.
 - If no, the entity should reflect the effect of uncertainty in determining its accounting tax position.

The Interpretation is effective for annual periods beginning on or after 1 January 2019. Entities can apply the Interpretation with either full retrospective application or modified retrospective application without restatement of comparatives retrospectively or prospectively.

The Group does not anticipate that the application of the amendments in the future will have an impact on the Group's consolidated financial statements.

Definition of a Business (Amendments to IFRS 3)

The amendments in Definition of a Business (Amendments to IFRS 3) are changes to Appendix A Defined terms, the application guidance, and the illustrative examples of IFRS 3 only. They clarify that to be considered a business, an acquired set of activities and assets must include, at a minimum, an input and a substantive process that together significantly contribute to the ability to create outputs. The amendments also narrow the definitions of a business and of outputs by focusing on goods and services provided to customers and by removing the reference to an ability to reduce costs and add guidance and illustrative examples to help entities assess whether a substantive process has been acquired. The assessment of whether market participants are capable of replacing any missing inputs or processes

and continuing to produce outputs is removed and an optional concentration test that permits a simplified assessment of whether an acquired set of activities and assets is not a business is added.

The amendments are effective for business combinations for which the acquisition date is on or after the beginning of the first annual reporting period beginning on or after 1 January 2020. The amendments have not yet been endorsed for use in the EU.

The Group does not anticipate that the application of the amendments in the future will have an impact on the Group's consolidated financial statements.

Definition of Material (Amendments to IAS 1 and IAS 8)

The amendments to IAS 1 and IAS 8 clarify the definition of 'material' and align the definition used in the Conceptual Framework and the standards. The revised definition of 'material' reads: Information is material if omitting, misstating or obscuring it could reasonably be expected to influence decisions that the primary users of general purpose financial statements make on the basis of those financial statements, which provide financial information about a specific reporting entity.

The new aspects of the new definition are:

- Obscuring. The existing definition only focused on omitting or misstating information. Now obscuring material information with information that can be omitted can have a similar effect.
- Could reasonably be expected to influence. The existing definition referred to 'could influence', but was considered to indicate too broad definition of events to include.
- Primary users. The existing definition referred only to 'users', which might be understood too broadly, when deciding what information to disclose.

The amendments are effective for annual reporting periods beginning on or after 1 January 2020. Earlier application is permitted.

The amendments have not yet been endorsed for use in the EU.

The Group does not anticipate that the application of the amendments in the future will have an impact on the Group's consolidated financial statements.

2. Segment information

Uponor's segment structure is based on business and geographical segments in accordance with the organisational structure. The reporting segments are Building Solutions – Europe, Building Solutions – North America and Uponor Infra. The business risks and profitability factors differ from each other with respect to the market and business environments, product offering, services and customers. The Group's management, control and reporting structures are organised by business segment. The reported segments are specified as operating segments, which have not been combined.

Building Solutions – Europe is in charge of the European markets, Asia and sales to such non-European countries in which Uponor does not have its own operations. In December 2018, Uponor announced that the company has decided to cease operations in Asia during 2019. Building Solutions – North America is responsible for business operations in the USA and Canada. Building solutions in Uponor mainly refers to indoor climate and plumbing solutions for residential and non-residential buildings. A major part of the building solutions customers are heating, ventilation and air conditioning (HVAC) professionals, such as installers and building companies.

Uponor Infra specialises in municipal infrastructure pipe systems business in Northern Europe and it has also business in Central Europe and had business in North America until end of August 2018. Its products and services, such as sewer and storm water systems and waste water treatment systems and project services are sold to municipalities, utilities and pipeline construction and renovation customers.

The 'Others' segment includes Group functions.

Financial target setting and monitoring mainly focus on figures for segment sales, operating profit, operative costs and net working capital. Group resources are managed, for instance, by allocating investments to attractive businesses and balancing human resources and competencies to match the requirements of business processes.

Segment reporting is based on the Group accounting principles. All transactions between segments are market-based and internal sales and margins are eliminated from consolidated figures.

The segment revenue equals to the net sales and the segment result equals to the operating profit presented in the condensed consolidated income statement. The income statement consists of continuing operations by segment, while balance sheet items match the Group structure on the closing dates.

Segment assets include items directly attributable to a segment and items which can be allocated on a reasonable basis. These are mainly non-interest bearing items such as intangible assets, property, plant and equipment, inventories, accruals, accounts receivables and other receivables.

2018 M€	Building Solutions – Europe	Building Solutions – North America	Uponor Infra	Others	Eliminations	Uponor Group
Net sales, external	521.6	340.5	334.2	-	-	1,196.3
Net sales, internal	2.6	-	3.1	-	-5.7	-
Net sales, total	524.2	340.5	337.3	-	-5.7	1,196.3
Operating result	31.1	46.6	35.1	-5.2	-0.9	106.7
Operating result, %	5.9	13.7	10.4			8.9
Finance income						14.4
Finance expenses						22.9
Share of result in associated companies and joint ventures						-4.7
Income taxes						30.3
Profit for the period						63.2
Assets	357.0	286.1	171.5	358.5	-386.5	786.6
Liabilities						
Total liabilities for reportable segments	305.0	232.0	58.3	261.7	-424.1	432.9
Unallocated amounts						353.7
Total shareholders' equity and liabilities						786.6
Investments	16.1	27.6	9.5	0.8	-	54.0
Depreciation and impairment	16.4	15.1	9.9	1.0	0.0	42.4
Personnel, average	2,073	925	999	77	-	4,074

2017 M€	Building Solutions – Europe	Building Solutions – North America	Uponor Infra	Others	Eliminations	Uponor Group
Net sales, external	520.6	328.2	321.6	-	-	1,170.4
Net sales, internal	1.1	-	1.8	-	-2.9	-
Net sales, total	521.7	328.2	323.4	-	-2.9	1,170.4
Operating result	40.0	49.7	12.0	-4.2	-1.6	95.9
Operating result, %	7.7	15.1	3.7			8.2
Finance income						14.7
Finance expenses						20.1
Share of result in associated companies and joint ventures						-2.3
Income taxes						22.8
Profit for the period						65.4
Assets	365.6	233.7	210.4	400.2	-344.2	865.8
Liabilities						
Total liabilities for reportable segments	293.6	176.3	69.6	345.8	-367.9	517.4
Unallocated amounts						348.4
Total shareholders' equity and liabilities						865.8
Investments	13.5	39.7	9.7	0.5	-	63.4
Depreciation and impairment	14.0	12.4	11.0	1.7	0.0	39.2
Personnel, average	2,065	808	1,041	76	-	3,990

Disaggregated revenue information

The Group disaggregates revenue recognised from contracts with customers into categories that depict how the nature, amount, timing and uncertainty of revenue and cash flows are affected by economic factors. Set out below is the disaggregation of the Group's revenue from contract with customers, including reconciliation of the revenue:

Revenue from contract with customers M€	1–12/ 2018			1–12/ 2017		
	Sale of goods	Rendering of services	Total	Sale of goods	Rendering of services	Total
Building Solutions - Europe	489.4	32.2	521.6	486.5	34.1	520.6
Building Solutions - North America	340.5	0.0	340.5	328.2	0.0	328.2
Uponor Infra	316.9	17.3	334.2	311.5	10.1	321.6
External customer, total	1,146.8	49.5	1,196.3	1,126.2	44.2	1,170.4
Internal revenue	5.7		5.7	2.9		2.9
Total	1,152.5	49.5	1,202.0	1,129.1	44.2	1,173.3
Eliminations	-5.7		-5.7	-2.9		-2.9
Total	1,146.8	49.5	1,196.3	1,126.2	44.2	1,170.4

Sale of goods

The Group's contracts with customers for the sale of goods generally include one performance obligation. The Group has concluded that revenue from sale of goods should be recognised at the point in time when control of the asset is transferred to the customer, generally on delivery of the goods. The exact timing of the control transfer is analysed contract by contract taking into account the delivery terms, customer acceptance clauses and customer's ability to benefit from the goods delivered.

Rendering of services including project business

Typically the promised goods and services in the contract are not distinct from each other and therefore, in most of the cases the Group accounts for the goods and services as a single performance obligation. The Group has concluded that the rendered services including project business are satisfied over time given that the Group's performance does not create an asset with an alternative use to the Group, the Group has an enforceable right to payment for performance completed to date or the Group's performance creates or enhances an asset that the customer controls as the asset is created or enhanced.

Entity-wide information

Information about product and services

M€	2018	2017
External net sales		
Building Solutions	859.5	848.7
Infrastructure Solutions	336.8	321.6
Uponor Group	1,196.3	1,170.4

Information about geographical areas

M€	2018	2017
External net sales		
United States	322.2	308.0
Germany	150.0	154.5
Finland	131.8	120.9
Sweden	114.4	113.0
Canada	86.1	100.6
Denmark	51.3	51.1
Netherlands	41.9	41.5
Spain	39.2	37.4
Norway	33.7	30.0
Poland	30.6	21.7
Others	195.1	191.7
Uponor Group	1,196.3	1,170.4

M€	2018	2017
Non-current assets		
United States	144.2	122.1
Finland	42.1	39.0
Sweden	40.9	40.5
Germany	37.2	36.4
Poland	31.3	33.8
Others	5.8	22.9
Uponor Group	301.5	294.7

External net sales are presented in accordance with the geographical location of the customers. Non-current assets are presented in accordance with the geographical location of the assets. Non-current assets do not include goodwill and deferred tax asset.

3. Disposal of subsidiaries and businesses

On 31 August, Uponor announced that its subsidiary Uponor Infra Oy and Wynnchurch Capital, an American private equity firm, had signed a business purchase agreement for Uponor Infra's North American business. Uponor Infra made a decision to withdraw from the business in accordance with its strategy to focus on markets where it has possibilities to find synergies with Uponor's Building Solutions – Europe segment: strong brand and common distribution channels among others. The debt and cash free purchase price was CAD 62.5 million (approximately €41 million).

Further, on 5 September, Uponor and Swegon Group AB signed a share purchase agreement for the sale of all outstanding shares in Zent-Frenger GmbH. In 2012, Uponor acquired Zent-Frenger, a leading provider of radiant ceilings in Germany, aiming to extend its product offering and find synergies in large commercial projects. The strategic fit did not materialise and due to different business models, the operational synergies were limited. The debt and cash free purchase price was €16 million. Zent-Frenger was a part of Building Solutions – Europe segment. The acquisition was completed at the end of October 2018.

The net sales price received from these transactions totalled to €54.6 million. The net gain, including transaction cost, totalling €15.7 million was booked to other operating income.

M€	2018	2017
Book value of disposed assets and liabilities		
Tangible assets	12.1	-
Intangible assets	10.3	-
Inventory	10.4	-
Accounts receivable and other receivables	25.3	-
Cash and cash equivalents	0.8	-
Total assets	58.9	-
Employee benefits and other liabilities	4.9	-
Provisions	1.0	-
Deferred tax liability	1.2	-
Accounts payable and other current liabilities	14.9	-
Total liabilities	22.0	-
Net assets	36.9	-
Cash received from sales	54.6	-
Cash and cash equivalent disposed of	0.8	-
Cash flow effect	53.8	-

4. Other operating income and expenses

M€	2018	2017
Other operating income		
Gains from sales of fixed assets	0.4	2.5
Profit from disposal of subsidiaries and businesses	15.7	-
Other items	0.3	0.6
Total	16.4	3.1
Other operating expenses		
Research and development expenses	22.5	23.2
Losses from sales of fixed assets	0.2	0.4
Impairments	2.8	0.6
Other items	0.0	0.2
Total	25.5	24.4
Auditor fees		
Audit firm Deloitte		
Statutory audit services	0.9	0.9
Other services	0.1	0.0
Total	1.0	0.9

In 2018, other operating income includes profit from disposal of Uponor Infra's North American business and Zent-Frenger GmbH.

In 2017, other operating income includes a €1.9 million gain from the sale of office and manufacturing space in Uponor Infra's premises in Vaasa, Finland.

5. Employee benefits

M€	2018	2017
Short-term employee benefits:		
- Salaries and bonuses	212.1	200.1
- Other social costs	33.0	31.4
Post-employment benefits:		
- Pension expenses - defined contribution plans	12.0	11.0
- Pension expenses - defined benefit plans	0.8	0.9
Other long-term employee benefits	0.1	0.1
Termination benefit expenses	1.2	1.1
Share based payments		
- Equity settled share-based payment transactions	0.4	1.1
Total	259.6	245.7
Personnel at 31 December	3,928	4,075
Personnel, average	4,074	3,990

Information on the management's employee benefits is presented in note 31 Related party transactions.

6. Depreciation and impairment

M€	2018	2017
Depreciation and impairment by asset category		
Intangible rights	2.6	3.5
Other intangible assets	3.7	2.7
Land and water areas	0.1	0.1
Buildings and structures	5.0	4.9
Machinery and equipment	25.8	22.8
Other tangible assets	5.2	5.2
Total	42.4	39.2
Depreciation and impairment by function		
Cost of goods sold	28.9	27.4
Dispatching and warehousing	1.3	1.3
Sales and marketing	4.1	4.1
Administration	4.2	4.7
Other	3.9	1.7
Total	42.4	39.2

In 2018, an impairment of €2.8 (0.6) million was made relating to intangible and tangible assets. By function, this is included in the line Other.

7. Financial income and expenses and currency exchange differences

M€	2018	2017
Financial income		
Interest income from loans and other receivables	0.6	0.2
Interest income from interest rate swaps	0.0	-
Profit from financial assets and liabilities designated at fair value through profit and loss		
- net foreign currency derivatives, not under hedge accounting	-	7.9
Exchange differences	13.6	6.6
Other financial income	0.2	-
Total	14.4	14.7
Financial expenses		
Interest expense for financial liabilities measured at amortised cost	2.9	3.0
Interest expense from interest rate swaps	0.5	1.1
Refund of penalty interest	-	-3.6
Loss from financial assets and liabilities designated at fair value through profit and loss		
- net foreign currency derivatives, not under hedge accounting	9.5	-
Exchange differences	9.0	17.7
Other financial costs	1.0	1.9
Total	22.9	20.1

A €3.6 million adjustment in financial expenses was booked in 2017 after the decision by the Supreme Administrative Court in Finland to adjust earlier taxation decision and late fees imposed on the company.

In 2018, exchange rate gains and losses included in operating income and expenses total a € 2.1 million loss (0.8 million gain). Interest expenses include the interest part of finance lease payments of €0.3 (0.4) million.

8. Income taxes

M€	2018	2017
Current year and previous years taxes		
For the financial period	23.9	27.9
For previous financial periods	0.0	-2.2
Change in deferred taxes	6.4	-2.9
Total	30.3	22.8
Tax reconciliation		
Profit before taxes	93.5	88.2
Computed tax at Finnish statutory rate (20%)	18.7	17.6
Difference between Finnish and foreign rates	5.1	10.9
Non-deductible expenses	4.6	1.5
Tax exempt income	-4.3	-2.0
Utilisation of previously unrecognised tax losses	0.0	-2.0
Unrecognised deferred tax assets on losses	3.7	1.4
Change in tax legislation	0.0	-1.6
Taxes from previous years	0.0	-2.2
Other items	2.5	-1.0
Total	30.3	22.6
Effective tax rate, %	32.4	25.6

Effective tax rate in 2018 was 32.4% (25.8%). The divestments of Uponor Infra's North American business and Zent-Frenger together with decision to cease operations in Asia and close down the sales office in Australia had one-time impacts of +4.9% pts to effective tax rate. During 2018 there were no significant changes in national tax legislation having impact on Group's deferred taxes.

In 2017, effective tax rate was affected by the Supreme Administrative Court tax resolution in Uponor's favour in Finland and the U.S. tax reform in 2017. A €1.6 million adjustment in taxes for previous periods and a €3.6 million adjustment in financial expenses was booked in 2017 after the decision of the Supreme Administrative Court to lower taxes, tax increases and late fees imposed on the company in 2011; the total impact of -2.6% pts, or -€2.3 million, on taxes. The impact of the U.S. tax reform is due to a mandatory repatriation and revaluation of the net deferred taxes with the new federal tax rate 21% (35%). The total impact from U.S. tax reform was -2.6% pts, or -€2.3 million. Both the U.S. and the Finnish elements affecting the effective tax rate in 2017 are viewed as one-time impacts.

Taxes relating to other comprehensive income

2018	Before taxes	Tax effect	Net of taxes
M€			
Cash flow hedges	2.0	-0.4	1.6
Net investment hedging	-0.7	-	-0.7
Re-measurements on defined benefit pensions	-1.5	0.4	-1.1
Translation differences	1.2	0.0	1.2
Total	1.0	0.0	1.0

2017	Before taxes	Tax effect	Net of taxes
M€			
Cash flow hedges	1.3	-0.1	1.2
Net investment hedging	1.7	-	1.7
Re-measurements on defined benefit pensions	-0.6	0.2	-0.4
Translation differences	-13.2	0.0	-13.2
Total	-10.8	0.1	-10.7

9. Earnings per share

M€	2018	2017
Profit for the period	63.2	65.4
Profit for the period attributable to equity holders of parent company	52.8	60.5
Shares, in thousands		
Weighted average number of shares ¹⁾	73,123	73,130
Diluted weighted average number of shares	73,123	73,130
Basic earnings per share, €	0.72	0.83
Diluted earnings per share, €	0.72	0.83

¹⁾ Weighted average number of shares does not include treasury shares.

10. Intangible assets

2018 M€	Intangible rights	Customer relationship value	Technology	Goodwill	Other intangible assets	Investment in progress	Intangible assets
Acquisition costs 1 Jan	75.1	11.9	1.5	94.3	2.6	0.0	185.4
Structural changes	-0.6	-	-	-10.1	-	-	-10.7
Translation difference	-0.3	-	-	0.0	0.0	-	-0.3
Increases	1.2	-	-	-	0.3	0.1	1.6
Decreases	-0.1	-	-	-	-	-	-0.1
Transfers between items	-41.9	-	-	-	41.8	0.1	0.0
Acquisition costs 31 Dec	33.4	11.9	1.5	84.2	44.7	0.2	175.9
Accumulated depreciations and impairments 1 Jan	60.9	6.0	0.8	0.7	1.0	-	69.4
Structural changes	-0.4	-	-	-	-	-	-0.4
Translation difference	-0.3	-	-	-	0.0	-	-0.3
Acc. depreciation on disposals and transfers	-0.1	-	-	-	-	-	-0.1
Depreciation for the financial period	2.6	2.1	0.2	-	0.8	-	5.7
Transfers between items	-39.8	-	-	-	39.8	-	0.0
Impairments	0.0	-	-	-	0.6	-	0.6
Accumulated depreciations and impairments 31 Dec	22.9	8.1	1.0	0.7	42.2	-	74.9
Book value 31 December	10.5	3.8	0.5	83.5	2.5	0.2	101.0

2017 M€	Intangible rights	Customer relationship value	Technology	Goodwill	Other intangible assets	Investment in progress	Intangible assets
Acquisition costs 1 Jan	74.1	11.9	1.5	94.4	1.1	0.1	183.1
Structural changes	-	-	-	-	-	-	-
Translation difference	-0.2	-	-	-0.1	0.0	-	-0.3
Increases	1.8	-	-	-	0.6	-	2.4
Decreases	-0.7	-	-	0.0	-	-	-0.7
Transfers between items	0.1	-	-	-	0.9	-0.1	0.9
Acquisition costs 31 Dec	75.1	11.9	1.5	94.3	2.6	-	185.4
Accumulated depreciations and impairments 1 Jan	58.3	3.6	0.7	0.7	0.8	-	64.1
Structural changes	-	-	-	-	-	-	-
Translation difference	-0.2	-	-	-	0.0	-	-0.2
Acc. depreciation on disposals and transfers	-0.7	-	-	-	-	-	-0.7
Depreciation for the financial period	3.5	2.4	0.1	-	0.2	-	6.2
Transfers between items	-	-	-	-	0.0	-	0.0
Impairments	-	-	-	-	-	-	0.0
Accumulated depreciations and impairments 31 Dec	60.9	6.0	0.8	0.7	1.0	-	69.4
Book value 31 December	14.2	5.9	0.7	93.6	1.6	-	116.0

In 2018, increases in intangible assets mainly included the finalization of the website renewal project from 2017 and the implementation of a MES system in Uponor's factory in Sweden. In 2017, increases in intangible assets mainly included investments in the renewal of Uponor's websites visually and technically.

In 2018, structural changes includes the disposals of Uponor Infra's North American business and Zent-Frenger GmbH.

According to the IFRS 3 standard, goodwill is not depreciated, but it is tested at least annually for any impairment. The recoverable amount of cash generating units are determined based on value in use calculation which uses cash flow projections. If a unit's recoverable amount does not exceed the carrying amount, impairment is booked. Goodwill has been allocated between the segments as follows: Building Solutions – Europe €74.1 (76.7) million and Uponor Infra €9.5 (17.1) million. In 2018, the changes relate to the disposals of Uponor Infra's North American business and Zent-Frenger GmbH.

Impairment tests are carried out for each separate cash-generating unit. Cash flow forecasts related to goodwill cover a period of 5 years. Terminal value is calculated from the fifth year's cash flow. Cash flow forecasts are based on the strategic plans approved by the management. Key assumptions of the plans relate to growth and profitability development of the markets and the product and service offerings. A cash-generating unit's useful life has been assumed to be indefinite, since these units have been estimated to impact on the accrual of cash flows for an undetermined period. The discount rate used is based on the interest rate level reflecting the average yield requirement for the cash generating unit in question. The discount rate used was 9.4 (7.1) per cent for Building Solutions – Europe and 8.2 (7.6) per cent for Uponor Infra. The 2018 goodwill impairment tests indicated that there was no need to make impairments.

A sensitivity analysis is performed for the following variables: sales, gross profit margin and discount rate. A 3.8 per cent sales reduction compared to the forecasted long-term levels would not expose the Group to any material impairment risk. A decrease of 1.6 percentage points in gross profit margin would not cause any impairment, provided that other business factors remained unchanged. A discount rate increase of 3.6 percentage points would not lead to any impairment, either. Presented sensitivities relate to the segment Uponor Infra, as its goodwill is more sensitive to the risk of impairment. It is the opinion of management that the changes in the basic assumptions in the theoretical scenarios mentioned above should not be interpreted as evidence that they are likely to occur.

The Group does not have any capitalised development costs.

11. Tangible assets

2018 M€	Land and water areas	Buildings and structures	Machinery and equipment	Other tangible assets	Construction work in progress	Tangible assets
Acquisition costs 1 Jan	17.4	163.9	410.9	62.3	31.7	686.2
Structural changes	-2.2	-7.1	-30.1	-2.8	-1.4	-43.6
Translation difference	0.1	1.1	0.0	0.3	0.7	2.1
Increases	1.0	5.6	33.8	4.1	7.8	52.4
Decreases	0.0	-1.5	-4.9	-1.8	0.0	-8.2
Transfers between items	0.7	-0.1	7.1	1.2	-8.9	0.0
Acquisition costs 31 Dec	17.0	161.9	416.8	63.3	29.9	688.9
Accumulated depreciations and impairments 1 Jan	3.1	86.1	298.9	45.7	0.2	434.0
Structural changes	-	-4.1	-25.0	-2.4	-	-31.5
Translation difference	0.0	-0.3	-0.6	0.4	0.0	-0.5
Acc. depreciation on disposals and transfers	-	-1.1	-4.6	-1.8	-	-7.5
Depreciation for the financial period	0.1	5.0	23.6	5.2	-	33.9
Transfers between items	-	-	0.2	0.0	-0.2	0.0
Impairments	-	-	2.2	-	-	2.2
Accumulated depreciations and impairments 31 Dec	3.2	85.6	294.7	47.1	0.0	430.6
Book value 31 December	13.8	76.3	122.1	16.2	29.9	258.3
Book value for production plant, machinery and equipment			109.9			
2017 M€	Land and water areas	Buildings and structures	Machinery and equipment	Other tangible assets	Construction work in progress	Tangible assets
Acquisition costs 1 Jan	18.5	165.7	401.0	64.2	38.3	687.7
Structural changes	-	-	-	-	-	-
Translation difference	-0.6	-6.9	-16.0	-2.5	-2.4	-28.5
Increases	0.2	15.3	28.9	6.9	9.6	61.0
Decreases	-0.5	-12.4	-12.7	-6.2	0.0	-31.8
Transfers between items	-0.2	2.2	9.7	-0.1	-13.8	-2.2
Acquisition costs 31 Dec	17.4	163.9	410.9	62.3	31.7	686.2
Accumulated depreciations and impairments 1 Jan	3.1	93.9	300.1	49.7	-	446.8
Structural changes	-	-	-	-	-	-
Translation difference	0.0	-1.9	-10.4	-1.9	0.0	-14.2
Acc. depreciation on disposals and transfers	-0.1	-11.6	-12.6	-6.0	-	-30.3
Depreciation for the financial period	0.1	4.6	22.8	4.9	-	32.4
Transfers between items	-	0.8	-1.1	-1.0	-	-1.3
Impairments	-	0.3	0.1	-	0.2	0.6
Accumulated depreciations and impairments 31 Dec	3.1	86.1	298.9	45.7	0.2	434.0
Book value 31 December	14.3	77.8	112.0	16.6	31.5	252.2
Book value for production plant, machinery and equipment			100.8			

The 2018 increases in tangible assets consisted mainly of the continuation of capacity expansion in Building Solutions North America, opening a new manufacturing facility in June 2018 in Minnesota. The increases included also factory focused investments in Building Solutions Europe in Germany and Sweden, as well as Uponor Infra's investments in equipment and facilities with focus on efficiency increase and replacement.

The 2017 increase in tangible assets consisted mainly of production capacity expansion in Building Solutions – North America, new

machinery and equipment in factories in Sweden and Germany in Building Solutions – Europe, as well as production enhancement and relocations in Uponor Infra.

Construction work in progress amounted €29.9 million at the closing date in 2018 mainly relating to Building Solutions – North America's already started expansion activities.

In 2018, structural changes include the disposals of Uponor Infra's North American business and Zent-Frenger GmbH.

Tangible assets include property acquired under finance lease arrangements, as follows:

2018 M€	Land and water areas	Buildings and structures	Others	Finance lease arrangements total
Acquisition costs 1 Jan	0.7	11.1	0.7	12.5
Structural changes	-	-	-0.1	-0.1
Translation difference	-	0.0	-	0.0
Acquisition costs 31 Dec	0.7	11.1	0.6	12.4
Accumulated depreciations and impairments 1 Jan	-	8.7	0.5	9.2
Structural changes	-	-	-0.1	-0.1
Translation difference	-	0.1	-0.1	0.0
Depreciation for the financial period	-	0.3	0.1	0.4
Accumulated depreciations and impairments 31 Dec	-	9.1	0.4	9.5
Book value 31 December	0.7	2.0	0.2	2.9
2017 M€	Land and water areas	Buildings and structures	Others	Finance lease arrangements total
Acquisition costs 1 Jan	0.7	11.2	0.7	12.6
Structural changes	-	-	-	-
Translation difference	-	-0.1	0.0	-0.1
Acquisition costs 31 Dec	0.7	11.1	0.7	12.5
Accumulated depreciations and impairments 1 Jan	-	8.4	0.4	8.8
Structural changes	-	-	-	-
Translation difference	-	0.0	0.0	0.0
Depreciation for the financial period	-	0.3	0.1	0.4
Accumulated depreciations and impairments 31 Dec	-	8.7	0.5	9.2
Book value 31 December	0.7	2.3	0.2	3.3

12. Financial assets and liabilities by measurement category

ME	Note	IFRS 7 Fair value hierarchy level	2018	2017
Non-current financial assets				
Fair value through other comprehensive income				
Electricity derivatives	14	1	1.0	0.4
Amortised cost				
Other non-current receivables	14		10.8	10.1
Other shares and holdings			0.2	0.2
Current financial assets				
Fair value through other comprehensive income				
Electricity derivatives	16	1	1.5	0.1
Other derivative contracts	16	2	0.0	0.2
Fair value through profit or loss				
Other derivative contracts	16	2	2.4	1.7
Amortised cost				
Accounts receivable and other receivables	16		192.3	202.4
Cash and cash equivalents	17		38.1	107.0
Financial assets total			246.3	322.1

ME	Note	IFRS 7 Fair value hierarchy level	2018	2017
Non-current financial liabilities				
Amortised cost				
Interest bearing liabilities	22		175.6	176.6
Current financial liabilities				
Fair value through other comprehensive income				
Electricity derivatives	23	1	0.0	0.1
Other derivative contracts	23	2	0.6	0.5
Fair value through profit or loss				
Other derivative contracts	23	2	0.5	0.8
Amortised cost				
Interest bearing liabilities	22		1.7	81.9
Accounts payable and other liabilities	23		98.2	105.4
Financial liabilities total			276.6	365.2

The carrying value of financial assets and liabilities is considered to correspond to their fair value. Group's financial instruments are classified according to IFRS 7 fair value hierarchies.

Uponor applies hierarchy as follows:

The fair value of electricity derivatives are measured based on stock exchange prices. (Hierarchy 1)

The fair value of foreign exchange derivatives and interest rate derivatives are measured based on price information from common markets and commonly used valuation methods. (Hierarchy 2).

13. Investment in joint ventures and associated companies

M€	2018	2017
Acquisition costs 1 Jan	9.5	13.3
Share of result in associated companies	-4.7	-2.3
Increases	8.1	-
Dividends received	-0.3	-0.2
Translation difference	1.1	-1.3
Book value 31 Dec	13.7	9.5

On 13 February 2018, Uponor invested an additional \$10 million (€8.1 million) in Phyn, a smart water technology joint venture between Uponor and Belkin International, bringing its total investment in the company to €21.6 million (\$25 million). After this second investment, Uponor will have a 50 percent (37.5%) ownership in Phyn, both in the U.S. and in Europe, with the other 50 percent owned by Belkin. As a joint-venture company, Phyn is consolidated into Uponor's financial accounts using the equity method.

Summarised financial information in respect of the joint ventures

M€	2018	2017
Phyn		
Income statement		
Net sales	2.0	-
Profit for the period	-7.3	-7.1
Total comprehensive income for the period	-7.3	-7.1
Balance sheet		
Non-current assets	22.1	21.1
Current assets	6.7	5.6
Equity	26.9	24.6
Current liabilities	1.8	2.2
The above amounts of assets and liabilities include		
Cash and cash equivalents	5.8	5.4
Carrying amount of interest in joint venture		
Net assets in joint ventures	26.9	24.6
Group's ownership	50.0%	37.5%
Carrying amount of interest in joint venture	13.4	9.2

In addition, the Group has two German associated companies: Punitec GmbH and Punitec Verwaltungen GmbH, whose book value is €0.3 (0.2) million. From its 2018 result, Punitec GmbH paid a dividend of €0.3 (0.2) million to Uponor.

14. Non-current receivables

M€	2018	2017
Other loan receivables	0.3	0.3
Derivative contracts	1.0	0.4
Other receivables	10.5	9.8
Total	11.8	10.5

Other non-current receivables include €9.7 (9.2) million in funds recorded as receivables related to the court approved class action settlements in the USA in 2015.

15. Inventories

M€	2018	2017
Raw materials and consumables	22.5	21.3
Semifinished products	20.0	17.2
Finished products / goods	105.4	94.2
Total	147.9	132.7

Based on the FIFO principle, inventories are valued at the lower of cost or net realisable value. During the year, inventories were scrapped or written down by €3.1 (4.7) million.

16. Current receivables

M€	2018	2017
Accounts receivable	168.5	171.8
Contract assets	2.5	7.7
Current income tax receivables	8.2	19.5
Prepayments and accrued income	2.1	3.4
Derivative contracts	3.9	2.0
Other receivable	21.3	22.9
Total	206.5	227.3

According to the Group's assessment, the carrying value of non-interest-bearing current receivables, except for commodity contracts receivable, is considered to correspond with their fair value.

Accounts receivables are non-interest bearing and the payment terms vary based on market areas and conditions. Contract assets are recognised for revenue earned from rendering of services including project business. The decrease of contract assets is due to a disposal of Zent-Frenger which has been concentrating on project business.

Aging of accounts receivable is as presented in note 26 Financial risk management.

17. Cash and cash equivalents

M€	2018	2017
Cash and bank deposits	32.1	96.6
Other short-term investments (1–3 months)	6.0	10.4
Total	38.1	107.0

18. Shareholders' equity

During 2018, Uponor Corporation's share capital remained unchanged at 146,446,888 euros and the number of shares totalled 73,206,944. Each share entitles its holder to one vote at the shareholders' meeting. The share does not have any nominal value. Additionally, it does not have any minimum or maximum share capital other than stipulated by Finnish limited liability companies act. All shares issued have been paid in full.

At the beginning of 2018 the company held 59,121 treasury shares with a value of €0.4 million. During the period 14,365 of the company's own shares were transferred to the management as part of the long-term incentive programme for the years 2015–2017. During the period Uponor acquired a total of 200,000 of its own shares in public trading on Nasdaq Helsinki Ltd. at the market price prevailing at the time of purchase, for an average price of €9.6 per share. At the end of 2018 company held a total of 244,756 treasury shares with a value of €2.2 million. The treasury shares were reacquired during the period 17 Nov.–5 Dec. 2008 and 26 Oct.–2 Nov. 2018. The justification for the buy-back was the use of shares as consideration in connection with the company's share-based incentive schemes. Treasury shares are presented as a reduction in retained earnings and do not have any asset value in the financial statements.

Reserve for invested unrestricted equity includes investments complying with the Limited Liability Companies Act. Hedge reserve is used for recording the changes in fair value of derivative contracts under hedge accounting.

At present, other reserves include statutory legal reserves.

19. Deferred taxes

M€	2018	2017
Deferred tax assets		
Internal profit in inventory	0.3	0.3
Provisions	4.9	5.5
Unused tax losses	3.3	4.3
Tangible assets	0.2	0.3
Employee benefits	2.2	3.4
Fair valuation of available-for-sale investments and financial instruments	0.1	0.1
Other temporary differences	7.0	9.1
Total deferred tax assets	18.0	23.0
Offset against deferred tax liabilities	-8.9	-12.6
Net deferred tax assets	9.1	10.4

M€	2018	2017
Deferred tax liabilities		
Accumulated depreciation difference and untaxed reserve	15.9	12.2
Tangible assets	0.1	0.1
Fair valuation of available-for-sale investments and financial instruments	0.8	0.3
Other temporary differences	4.4	8.0
Total deferred tax liabilities	21.2	20.6
Offset against deferred tax assets	-8.9	-12.6
Total deferred tax liabilities	12.3	7.9

M€	2018	2017
Deferred tax assets		
1 Jan	10.4	11.6
Recognised on income statement	-1.5	-0.9
Recognised in comprehensive income	0.4	0.0
Recorded in equity	-0.1	-0.1
Translation difference	0.0	-0.2
Bought / sold business operations	-0.1	0.0
31 Dec	9.1	10.4

M€	2018	2017
Deferred tax liabilities		
1 Jan	7.9	11.8
Recognised on income statement	4.9	-3.8
Recognised in comprehensive income	0.4	0.3
Recorded in equity	0.1	0.1
Translation difference	0.2	-0.5
Bought / sold business operations	-1.2	0.0
31 Dec	12.3	7.9

The Group has recognised a deferred tax asset for its net operating loss carry-forwards, which can probably be utilised against future profits in the relevant tax jurisdictions. On 31 December 2018, the Group carried forward losses of €15.1 (19.4) million, for which the Group has a recognised deferred tax asset. In 2018, there is a €25.0 (26.3) million of loss carry-forwards for which no deferred tax asset has been recognised due to the uncertainty of the utilisation of these loss carry-forwards. Losses of €0.3 million will expire in 2019.

The Group recognises deferred taxes on the undistributed earnings of non-Finnish subsidiaries, in case repatriation would cause tax expenses. The group recognises the deferred tax only to the extent that such earnings are not intended to be permanently reinvested in those operations.

20. Employee benefit obligations

The Group has a number of pension plans covering its operations, complying with each country's local rules and regulations. Moreover, the Group applies defined contribution and defined benefit pension plans. Pensions are based on actuarial calculations or actual

payments to insurance companies. Independent authorised actuaries have prepared the actuarial calculations. The discount rate for actuarial calculations is determined by the reference to market yields of high-quality corporate bonds or government bonds. Used discount rates are country specific. Pension benefits are normally based on the number of working years and salary. Most defined benefit plans are located in Germany and Sweden, constituting around 98% of the defined benefit pension liability in the Group's balance sheet. Defined benefit plans in Germany and Sweden are unfunded and relate to pensions. These plans are closed for new entrants. Currently pensions are accrued according to defined contribution plans.

M€	2018	2017
Post-employment benefit obligations:		
- Defined benefit plans	18.1	22.8
Other long-term employee benefit liability	1.5	1.5
Total	19.6	24.3

Defined benefit obligations

M€	2018	2017
Reconciliation of assets and liabilities recognised in the balance sheet		
Defined benefit obligation	18.1	31.5
Fair value of plan assets	-	-8.7
Net liability in the balance sheet	18.1	22.8

Expenses recognised in the income statement

Current service costs	0.4	0.5
Net interest costs	0.4	0.6
Past service costs	0.0	-0.2
Total	0.8	0.9

Expenses recognised in the income statement by function

Cost of goods sold	0.2	0.4
Dispatching and warehousing	0.0	0.1
Sales and marketing	0.1	0.1
Administration	0.5	0.3
Total	0.8	0.9

Movements in obligation

Obligation at 1 Jan	31.5	33.0
Sale of businesses	-13.9	0.0
Service cost	0.4	0.3
Interest expense	0.6	0.9
Remeasurements	1.5	0.8
Settlements	0.0	-1.2
Conversion difference	-0.8	-1.0
Benefit payments	-1.2	-1.3
Obligation at 31 Dec	18.1	31.5

M€	2018	2017
Movements in fair value of plan assets		
Fair value of plan assets at 1 Jan	8.7	9.9
Sale of businesses	-9.0	-
Interest income	0.2	0.3
Remeasurements	0.0	0.2
Contributions by employer	1.5	1.4
Settlements	0.0	-1.2
Conversion difference	-0.2	-0.6
Benefit payments	-1.2	-1.3
Fair value of plan assets at 31 Dec	-	8.7

Major categories of plan assets, fair values and % of total plan assets

M€	2018		2017	
	Fair value	%	Fair value	%
Equity instruments	-	-	5.3	60.0
Debt instruments	-	-	3.5	40.0
Total	-	-	8.8	100.0

Defined benefit obligation and fair value of plan assets by countries

	Germany		Sweden		Canada		Other Countries	
	2018	2017	2018	2017	2018	2017	2018	2017
Defined benefit obligation	10.4	10.7	7.4	6.8	-	13.7	0.3	0.3
Fair value of plan assets	-	-	-	-	-	8.8	-	-
Net liability (asset)	10.4	10.7	7.4	6.8	-	5.0	0.3	0.3

Principal actuarial assumptions

	Germany		Sweden		Canada		Other Countries	
	2018	2017	2018	2017	2018	2017	2018	2017
Discount rate (%)	1.9	1.8	2.3	2.3	n/a	3.5	1.6–1.9	1.8–2.5
Expected rate of salary increase (%)	3.0	3.0	n/a	n/a	n/a	3.0	n/a	n/a–2.25
Expected rate of pension increase (%)	1.7	1.5	2.0	1.5	n/a	n/a	n/a–1.7	0.1–1.5

Sensitivity analysis of discount rate	Effect on amount of liability
Increase of 0.5%	Decrease of 6% on average
Decrease of 0.5%	Increase of 7% on average

The Group expects to contribute €0.9 (1.9) million to its defined benefit pension plans in 2019.

The following table shows maturity of expected benefit payments:

Maturity of benefit payments	2019	2020	2021	2022	2023	2024–
Expected benefit payments	0.9	0.9	0.9	0.9	0.9	4.5

21. Provisions

M€	Guarantee and warranty obligations	Environmental obligations	Restructuring	Other provisions	Total
Provisions at 1 Jan 2018	12.2	2.3	0.9	13.5	28.9
Structural changes	-0.8	-	-	-0.2	-1.0
Conversion difference	0.3	-	0.0	0.2	0.5
Additional provisions	5.2	-	3.3	2.9	11.4
Utilised provisions	-4.0	-0.1	-0.6	-4.7	-9.4
Unused amounts reversed	-0.1	-	0.0	-0.1	-0.2
Provisions at 31 Dec 2018	12.8	2.2	3.6	11.6	30.2
Current provisions	11.6	0.3	3.6	9.5	25.0
Non-current provisions	1.2	1.9	-	2.1	5.2
Total	12.8	2.2	3.6	11.6	30.2

Warranty provisions amounted to €12.8 (12.2) million at the end of the period. Warranty provisions are based on the previous years' experience of defective goods. The aim is to be prepared for future warranty expenses. Warranty periods vary from country to country, depending on local legislation and commercial practices. Other provisions include provision for enhanced warranty to cover potential fitting failures related to Uponor yellow brass fittings sold in the USA. This enhanced warranty relates to the court approved terms of the class action suits settled on 17 December 2015.

Additions in restructuring provisions relate mainly to a decision to cease operations in Asia.

At period end, the environmental provision relating mainly to the divested Finnish real estate business in 2004 was €2.2 (2.3) million.

22. Interest-bearing liabilities

M€	2018	2017
Non-current interest bearing liabilities		
Loans from financial institutions	171.8	172.0
Finance lease liabilities	3.7	4.4
Other non-current interest bearing liabilities	0.1	0.2
Total	175.6	176.6

Current interest-bearing liabilities

Loans from financial institutions	0.1	0.6
Current portion of bonds	-	80.0
Finance lease liabilities	0.8	0.8
Other current interest bearing liabilities	0.8	0.5
Total	1.7	81.9

M€	2018	2017
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A reconciliation between the opening and closing balances of liabilities arising from financing activities

Interest bearing liabilities at 1 Jan	258.5	175.8
Cash flows	-80.9	83.0
Translation difference	-0.3	-0.3
Interest bearing liabilities at 31 Dec	177.3	258.5

M€	2020	2021	2022	2023	2024–
Maturity of non-current interest bearing liabilities					
Loans from financial institutions	0.1	70.1	100.1	0.1	1.4
Finance lease agreements	0.9	2.8	0.0	0.0	0.0
Other non-current interest bearing liabilities	0.1	0.0			
Total	1.1	72.9	100.1	0.1	1.4

M€	2018	2017
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The weighted average interest rates of interest-bearing liabilities, % pa

Loans from financial institutions	0.79	0.79
Bonds	-	1.78
Other non-current interest bearing liabilities	0.88	0.92

Uponor had a bond of €80 million, issued in 2011, maturing in June 2018. The bond was repaid in full, using a five year €100 million term loan, which was raised late 2017. In 2016 Uponor took out 5-year loans of €50 million and €20 million, in order to fund M&A and joint venture activities. €70 million of the long term loans' capital is hedged using financial instruments.

At the end of the year, the Group did not have any issued outstanding commercial papers.

M€	2018	2017
Finance lease liabilities		
Minimum lease payments		
In less than one year	1.0	1.1
1–5 years	3.9	4.8
Over 5 years	0.0	0.0
Total	4.9	5.9
Future finance charges	0.4	0.7
Finance lease liabilities – the present value of minimum lease payments	4.5	5.2
The present value of minimum lease payments		
In less than one year	0.8	0.8
1–5 years	3.7	4.4
Over 5 years	0.0	0.0
Total	4.5	5.2

The Group's finance lease agreements are mainly related to office, factory and warehouse premises. On 31 December 2018, the total amount of capitalised costs for finance lease agreements in the Group was €3.0 (3.3) million, which was included in the balance sheet under property, plant and equipment. The corresponding depreciation in 2018 was €0.4 (0.4) million. The total amount of finance lease payments in 2018 was €1.0 (1.1) million, which included €0.3 (0.4) million in interest expenses.

The most significant leasing liability is the finance lease agreement relating to office buildings and production facilities in Germany, signed in 1999. In 2018, the Group did not enter into any significant new finance lease agreements.

23. Current liabilities

M€	2018	2017
Accounts payable	72.0	76.8
Current income tax liability	6.1	5.8
Accrued liabilities	86.5	79.9
Advances received	0.7	0.9
Contract liabilities	1.0	4.1
Derivative contracts	1.1	1.4
Other current liabilities	26.2	28.6
Total	193.6	197.5

Contract liabilities are recognised for revenue earned from rendering of services including project business, all projects are realized within one year. The decrease of contract liabilities is due to a disposal of Zent-Frenger which has been concentrating on project business.

M€	2018	2017
Accrued liabilities		
Personnel expenses	41.0	38.1
Bonuses	23.4	18.0
Taxes	0.5	0.7
Interest	0.5	0.3
Others	21.1	22.8
Total	86.5	79.9

24. Commitments, contingent assets and liabilities

M€	2018	2017
Commitments of purchase PPE (Property, plant, equipment)	7.4	12.4
Other commitments	0.0	0.8
- on own behalf		
Pledges at book value	0.1	0.1
Mortgages issued	1.9	2.1
Guarantees issued	0.6	5.6
- on behalf of a subsidiary		
Guarantees issued	27.3	29.4
Letter of Comfort commitments undertaken on behalf of subsidiaries are not included in the above figures.		
Pledges at book value	0.1	0.1
Mortgages issued	1.9	2.1
Guarantees issued	27.9	34.9
Total	29.9	37.1

Contingent liabilities are presented in accordance with the best estimate of the amount of liability.

On 13 September 2017, the Supreme Administrative Court in Finland resolved the taxation adjustment decisions concerning Uponor Corporation and its subsidiary Uponor Business Solutions Oy. The decision lowers Uponor Corporation's uncharged mark-up of service fees that was added on the company's taxable income, from seven to three per cent for the tax years 2005–2007. The taxes, late fees and tax increases imposed on the company were also decreased. The taxation adjustment decisions concerning the parent company's subsidiary, Uponor Business Solutions Oy, for the tax year 2005 was overruled. With regard to the tax years 2006–2009, the clarification of arm's length amounts of service fees charged by the company will be returned to the Finnish Tax Administration for review.

The Finnish Tax Administration gave its decision on 28 August 2018. According to the reassessment of the Finnish Tax Administration, no taxable income will be added to Uponor Business Solutions Oy, because the company's original pricing model did not include material deviation from the arm's length principle. Due to the Finnish Tax Administration's decision, taxes, surtaxes and delay interests, recorded by Uponor in 2011, in total approximately €11.4 million as well as statutory interests was paid back the company.

Uponor is involved in several judicial proceedings, in various countries. The Group believes at the moment that the outcome of these disputes will not have a material effect on the Group's result or financial position.

25. Operating lease commitments

M€	2018	2017
Future minimum lease payments		
In less than one year	12.9	12.4
1–5 years	26.9	24.6
Over 5 years	11.0	7.0
Total	50.8	44.0

The Group has rented office and warehouse premises under various agreements. In addition, rental agreements, which do not constitute finance lease agreements, are classified as other rental agreements. The rents of operative leasing commitments are booked as expenses during the maturity period.

26. Financial risk management

Financial risk management aims to ensure Uponor Group's sufficient liquidity in a cost-efficient manner and to minimise any adverse effects on the Group's financial performance caused by uncertainties in the financial markets. The general operating principles of financial risk management are defined in the Group Treasury Finance Policy, approved by the Board.

At practical level Group's Treasury activities are governed by Treasury Committee. Treasury Committee is chaired by the Group's President and CEO, and its other members are the Group CFO and Vice President, Treasury and Risk Management. The Treasury Committee is responsible for steering and supervising practical financial risk management. For the purposes of risk management, Uponor uses only such financial instruments whose market value and risk profile can be monitored reliably and continuously. Hedging transactions related to, for instance foreign currency, interest rate, liquidity and counterparty risks, are carried out in accordance with the Group Hedging Policy.

The management of financial risk is centralised into parent company and Group Treasury which also operates as the Group's internal bank. Group Treasury's financial risk management duties include identifying, assessing and covering the Group's financial risks. The Treasury is also responsible for external market transactions related to financial assets and risk management. Providing Group companies with consultation and services within financing belongs to the scope of Group Treasury as well.

Currency risk

Due to its international operations, the Group is exposed to currency risks arising from, for instance, currency-denominated accounts receivable and payable, intra-Group transactions, currency-denominated financing, deposits and bank account balances. According to the Group

hedging policy, subsidiaries hedge all relevant transaction risks with the Group Treasury, using internal forward transactions. Group Treasury is responsible for assessing net positions and hedging them in external currency markets. Currency forward agreements and options are main instruments used in external hedging. The maximum duration of used foreign exchange contracts is one year.

Subsidiaries forecast their foreign currency cash flows monthly for the following 12 month period. In accordance with the Group hedging policy, they hedge the relevant portion of their net foreign currency cash flows. In addition to the euro, other main invoicing currencies are US dollar (USD), Swedish krona (SEK), Canadian dollar (CAD) and Danish krone (DKK). On 31 December 2018, these currencies accounted for approximately 63.4 (62.1) percent of the Group's external accounts receivable. Costs arising from the Group's own production in the United States and Sweden are used as natural hedges against sales in the mentioned currencies.

Group's currency risk position at 31 Dec 2018

M€	EUR CAD	EUR SEK	USD CAD	EUR NOK	EUR DKK	Total
Gross exposure	-9.7	15.4	-5.2	2.5	6.1	9.1
Hedged	0.0	-31.5	15.5	-9.7	4.7	-21.0
Net exposure	-9.7	-16.1	10.3	-7.2	10.8	-11.9

Sensitivity analysis (+/-10%)

M€	EUR CAD	EUR SEK	USD CAD	EUR NOK	EUR DKK	Total
Income statement	1.0	1.6	1.0	0.7	1.1	5.4

Group's currency risk position at 31 Dec 2017

M€	EUR USD	EUR SEK	USD CAD	EUR GBP	EUR DKK	Total
Gross exposure	99.0	14.8	-1.3	3.8	7.1	123.4
Hedged	-110.5	-29.9	13.6	-8.3	4.1	-131.0
Net exposure	-11.5	-15.1	12.4	-4.4	11.1	-7.5

Sensitivity analysis (+/-10%)

M€	EUR USD	EUR SEK	USD CAD	EUR GRB	EUR DKK	Total
Income statement	1.2	1.5	1.2	0.4	1.1	5.4
Equity (translation differences)	1.3					1.3

The exposure presented includes only financial instruments as defined by IFRS 7. An exposure is a net of all the financial assets

and liabilities nominated in foreign currencies outstanding on the balance sheet date. The exposure does not include any internal loans designated as net investments in foreign operations or any forecasted sales and purchases that are not yet on the balance sheet. The presented foreign exchange risk sensitivity analysis illustrates the impact of a 10 percent change in exchange rates on the income statement and on the balance sheet in euro.

Translational risks arise when the currency denominated assets and liabilities of subsidiaries located outside the euro area are exposed to currency fluctuations and these assets and liabilities are translated into the parent company's reporting currency, the euro. The most important balance sheet items in foreign currency are in the US dollar (USD). Translation risk affects the reported profit and key ratios through changes in the balance sheet, but not the cash flow. According to the Group hedging policy, such non-euro denominated balance sheet items are not hedged, with the exception of non-euro denominated internal loans which are hedged in full.

Interest rate risk

Interest rate risk arises when changes in market interest rates influence financing costs, returns on financial investments and valuation of interest-bearing balance sheet items. Group Treasury is responsible for managing interest rate risks within the framework specified by Group Treasury policy, with the aim of balancing the interest rate position and optimising interest rate risks.

In order to manage interest rate risks, Uponor Group's funding is executed by using both fixed and floating interest rate loans and financial instruments. Currently all the external loans are based on floating interest rates. The duration of the interest rate position is managed by choosing loans with different interest rate periods. Different derivative instruments, such as interest rate swaps, forward rate agreements and interest rate options can also be used. Group Treasury is also responsible for matching external financial items and the duration of balance sheet items funded by such items. Short-term money market investments expose the Group to cash flow interest rate risks, but the overall impact of such investments is insignificant.

Financial instruments' sensitivity to fluctuations in market interest rates, as stated in the standard IFRS 7, is as follows: the impact of an interest rate increase or decrease of one percentage point is +/- €1.7 (-/+ 1.4) million to the income statement and +/- €1.4 (+/- 1.3) million to shareholders' equity. The impact is calculated before taxes. The interest position impacting income statement consists of floating rate interest-bearing financial liabilities and assets, interest rate options and interest rate swaps where hedge accounting is not applied. The impact to shareholders' equity results from the fair value change of the interest rate swap under cash flow hedge accounting.

Liquidity and refinancing risk

Liquidity and refinancing risk arises when a company is not able to arrange funding at reasonable terms and conditions, or at all. Uponor seeks to ensure availability and flexibility of financing through a balanced distribution of loan maturities, utilisation of various types of funding, multiple sources and by maintaining adequate credit limit reserves. The Group's liquidity is managed through efficient cash management and by investing solely in low-risk instruments, that can be liquidated rapidly and at a clear market price.

Group Treasury is responsible for the co-ordination of Group funding through the parent company. In exceptional cases, mainly for practical or legal reasons, Group Treasury can establish local working capital credit lines or loan structures in the name of a subsidiary, guaranteed by the parent company.

The most significant existing funding programmes on 31 December 2018 included:

- Bilateral term loan of €50 million maturing in 2021
- Bilateral term loan of €20 million maturing in 2021
- Bilateral term loan of €100 million maturing in 2022
- Four committed bilateral revolving credit facilities totalling €200 million of which €100 million maturing in 2021 and €100 million maturing in 2022

None of the committed bilateral revolving credit facilities were used during the reporting period.

In addition, the Group has €34.9 million of cash-pool limits and a domestic commercial paper programme totalling €150 million. No cash-pool limits nor commercial paper programme were used at the end of the reporting period.

At the end of the reporting period, the Group had a total of €38.1 (107.0) million in cash and cash equivalents.

Contractual maturity of financial liabilities at 31 Dec 2018

M€	2019	2020	2021	2022	2023–
Bonds	-				
Loans from financial institutions	1.9	1.6	71.3	100.9	1.7
Finance lease liabilities	1.0	1.0	2.9		
Other non-current interest bearing liabilities	0.1	0.1			
Bank overdrafts in use	0.0				
Accounts payable	72.0				

Derivative contracts

Foreign currency derivatives					
- cash outflow	268.1				
- cash inflow	270.0				
Interest derivatives *)	-	0.2	0.3	0.3	
Electricity derivatives *)	0.0				
*) under hedge accounting					

Contractual maturity of financial liabilities at 31 Dec 2017

M€	2018	2019	2020	2021	2022–
Bonds	80.7				
Loans from financial institutions	1.7	1.4	1.5	71.3	102.8
Finance lease liabilities	1.1	1.0	1.0	2.8	-
Other non-current interest bearing liabilities	0.1	0.2			
Bank overdrafts in use	0.5				
Accounts payable	76.8				
Derivative contracts					
Foreign currency derivatives					
- cash outflow	204.3				
- cash inflow	205.5				
Interest derivatives ¹⁾	0.5	-	0.2	0.3	0.3
Electricity derivatives ¹⁾	0.1	0.0			

¹⁾ under hedge accounting

Counterparty and credit risk

The counterparty risk related to financial instruments has been defined as the risk of the counterparty being unable or unwilling to fulfil its contractual obligations.

In order to minimise counterparty risks, the Group invests its cash reserves and makes derivative contracts using only counterparties who meet the Group's criteria for creditworthiness. The Group did not suffer any significant credit losses in its normal business operations during the financial year. The maximum counterparty risk is the book value of financial assets on 31 December 2018.

Potential concentrations of credit risk with respect to trade and other receivables are limited due to the large number and geographic dispersion of companies that comprise the Group's customer base. Customer credit limits are established and constantly monitored, and the evaluation of customers' financial conditions is performed on an ongoing basis. Trade receivables are credit insured when applicable. Group's expected credit loss is evaluated based on trade receivables of the lifetime expected credit losses according to IFRS9. Group has analysed individually receivables which are under juridical proceedings and has decided not to combine these credit loss provisions into expected credit loss model. Group's total credit loss provision is combination of individual cases provisions and evaluated expected credit loss. The simplified approach is used for evaluation. The expected amount of credit loss in each age group is based on recorded historical credit losses, in addition to which the Group has anticipated the increase in credit losses and has taken into account changes in the probability of credit losses.

	2018			2017
	Trade receivables, M€	Probability of not collecting, %	Expected uncollectible, M€	
The aging of accounts receivable				
Undue	148.6	0.1%	0.2	145.4
Due 1–30 days	14.3	0.1%	0.0	16.7
Due 31–60 days	2.0	1.7%	0.0	3.0
Due 61–90 days	1.2	10.0%	0.1	2.2
Due over 90 days	2.4	11.0%	0.3	4.5
Total	168.5		0.6	171.8
Provision for impairment based on individual analyses				
Total			2.1	
Total			2.7	

Price risk

In its business operations, the Group is exposed to raw material price risks including materials like plastics, aluminium, copper, zinc as well as electricity price risks. Such price risks are managed through long-term fixed-price supply contracts, whenever financially feasible. As far as the metals' price risk is concerned, LME-based (London Metal Exchange) financial instruments can be used to supplement fixed-price contracts. Hedge accounting is not applied to metals hedging via financial instruments.

Group Treasury is responsible for managing electricity price risks at the Nordic level within the framework defined in the Group hedging policy. Hedging targets are achieved mainly by using financial electricity derivative contracts. The Group applies hedge accounting to the electricity derivatives.

The table below presents the sensitivity of open electricity derivatives to fluctuations in electricity prices should the market price of electricity increase or decrease by 10 percent, while other factors are expected to remain unchanged. These figures are calculated before taxes. Electricity derivatives recorded at fair value affect the profit and loss statement. Any changes in the value of electricity derivatives that meet the criteria for hedge accounting as set forth in IFRS 9 have an impact on shareholders' equity.

M€	2018	2017
Change in shareholders' equity	+/- 0.7	+/- 0.5

27. Derivative contracts and hedge accounting

M€	2018	2017
Nominal value		
Interest rate derivatives		
Interest rate swaps		
- under hedge accounting	50.0	100.0
Interest rate options		
- not under hedge accounting	70.0	70.0
Foreign currency derivatives:		
Forward agreements		
- not under hedge accounting	277.2	199.7
- under hedge accounting	-	12.7
Commodity derivatives:		
Forward agreements		
- under hedge accounting	4.1	4.7
Energy, MWh	162,118	186,215

M€	2018			2017		
	Positive fair value	Negative fair value	Net fair value	Positive fair value	Negative fair value	Net fair value
Fair value						
Interest rate derivatives						
Interest rate swaps						
- under hedge accounting	-	-0.6	-0.6	0.0	-0.5	-0.5
Interest rate options						
- not under hedge accounting	0.0	-	0.0	0.0	-	0.0
Foreign currency derivatives:						
Forward agreements						
- not under hedge accounting	2.4	-0.5	1.9	1.7	-0.8	0.9
- under hedge accounting	-	-	-	0.2	-	0.2
Commodity derivatives:						
Electricity derivatives						
- under hedge accounting	2.6	0.0	2.6	0.5	-0.1	0.4

Changes in the fair values of electricity and interest rate derivatives designated as cash flow hedges are recognised in other comprehensive income to the extent that the hedge is effective.

From electricity derivatives a gain of €1.7 (0.4) million was booked to other comprehensive income during the financial period.

From interest rate derivatives a loss of €0.1 (gain of €0.8) million was entered into other comprehensive income during the financial period. The tax impact has been taken into account in the amount. No ineffectiveness has been booked.

28. Capital management

The purpose of the Group's capital management is to create an efficient capital structure in order to ensure normal operational preconditions and growth opportunities and, thereby, to increase long-term shareholder return.

In addition to investment decisions, dividend distribution is a key factor affecting the capital structure. The Group's long-term goal is to pay a basic dividend which represents at least 50 percent of annual earnings per share.

The Group's capital structure developments are monitored by means of gearing. Gearing is calculated by dividing net interest-bearing liabilities by total equity. Net interest-bearing liabilities include interest bearing liabilities less cash and cash equivalents. The Group's target is to keep its gearing between 30 and 70 percent across quarters. In 2018, gearing average across quarters was 53.0 (58.4) per cent.

M€	2018	2017
Interest-bearing liabilities	177.3	258.5
Cash and cash equivalent	38.1	107
Net interest-bearing liabilities	139.2	151.5
Total equity	353.6	348.4
Gearing, %	39.4	43.5
Gearing across quarters, %	53.0	58.4

Group's financial agreements include typical covenant clauses regarding the gearing and interest cover ratio. The realised ratio levels have clearly fulfilled the covenant clauses.

29. Management incentive scheme and share based payments

During the financial year 2018 Uponor share plans had the earning periods 2015–2017, 2016–2018, 2017–2019 and 2018–2020 in operation. In addition, the shares paid on the basis of earning period 2014–2016 were under restriction. In December the Board decided on a new share plan for the performance period 2019–2021 but no costs were recognised in 2018. In the plans Uponor shares can be earned on the basis of performance criteria set for the performance period. The purpose of the plans is to retain key management, as well as to motivate and reward the management for good performance that supports the company's profitability and the implementation of the company's strategy. The targets for the earning periods launched since 2015 are mainly based on consolidated three-year cumulative Net Sales and three-year

EBITDA or EBITDA-based intrinsic value. The plans also encourage the key management to further acquire and own Uponor's shares, which will contribute to aligning the interests of the management, the company and the shareholders. Key characteristics and terms of Uponor share plans are listed in the table below. The amounts include the cash portion intended for taxes arising from the reward to the participant.

Performance Share Plan	2016–2018	2017–2019	2018–2020
Maximum amount, pcs	300,000	300,000	400,000
Launch date	14/12/2015	12/12/2016	12/12/2017
Start of the earning period	01/01/2016	01/01/2017	01/01/2018
Vesting date	31/05/2019	30/04/2020	30/04/2021
Maximum contractual life, yrs	3.4	3.3	3.3
Remaining contractual life, yrs	0.4	1.3	2.3
Number of persons at the end of the reporting year	17	23	42
Payment method	Shares and cash	Shares and cash	Shares and cash
Maximum amount outstanding at the end of the period	174,010	209,572	331,230

The fair value of share based incentives have been determined at grant date and is expensed until vesting. As of the IFRS 2 standard amendment as of 1 January 2018 the entire share incentive, including the cash-for-taxes portion is recognised in equity. Also the value of the cash portion is based on the grant date value to the extent not granted and expensed by the introduction of the amendment as of the 1 January 2018. The pricing of the share based incentives granted during the period was determined by the following inputs and had the following effect:

Valuation parameters for instruments granted during period

Share price at grant, €	16.24
Expected dividends, per year €	1.23
Fair value per share, €	15.01

Effect of Share-based Incentives on the result and financial position during the period, M€

Expenses for the financial year, share-based payments, equity-settled	0.4
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30. Interests in subsidiaries and non-controlling interests

Subsidiaries are listed in the note 31 Related party transactions.

Uponor Corporation's subsidiary Uponor Infra Oy has material non-controlling interest as a result of its ownership structure. Uponor Corporation has control in Uponor Infra Oy through the 55.3 per cent direct ownership and the voting ownership by holding the Chair position in the board of directors of Uponor Infra Oy. KWH Group Ltd has 44.7 per cent ownership in Uponor Infra Oy. Uponor Infra Oy is a parent company of a subgroup and its consolidated financials are presented below. The structure of this subgroup is presented in the list of subsidiaries.

Company name and location	Non-controlling interest, proportion of ownership	Profit for the period attributable to non-controlling interest	Equity attributable to non-controlling interest			
	2018	2017	2018	2017		
Uponor Infra Oy, Finland, Helsinki	44.7%	44.7%	10.4	4.9	56.0	68.2

Financial information on Uponor Infra Oy's consolidated financial statements:

M€	2018	2017
Net sales	337.3	323.4
Profit for the period	23.1	11.1
Total comprehensive income for the period	22.8	10.3
Profit for the period	23.1	11.1
- Equity holders of parent company	12.7	6.2
- Non-controlling interest	10.4	4.9
Total comprehensive income for the period	22.8	10.3
- Equity holders of parent company	12.6	5.7
- Non-controlling interest	10.2	4.6
Non-current assets	62.1	81.3
Current assets	111.7	130.8
Shareholders equity	115.8	143.0
Non-current liabilities	3.0	8.4
Current liabilities	55.0	60.7
Cash flow from operations	24.6	13.0
Cash flow from investments	29.7	-6.1
Cash flow from financing	-56.8	-6.4
Total cash flow	-2.5	0.5

In 2018, Uponor Infra Oy paid €50.0 million return of capital to its owner, of which €22.4 million to non-controlling interest. Uponor Infra Oy did not pay any dividends in 2018 or in the comparison period to its owners.

31. Related party transactions

Uponor Group's related parties include subsidiaries and associates as well as Board members, the President and CEO, and Executive Committee members.

The related party transactions disclosed consist of transactions carried out with related parties that are not eliminated in the consolidated financial statements.

Executive Committee and Board remuneration

T€	2018	2017
Executive Committee remuneration		
Remuneration ⁾	3,351.1	3,039.5
Post-employment benefits		
- defined contribution plans	269.6	357.2
Share based benefits	320.9	298.5
Total	3,941.6	3,980.2

⁾ Remuneration includes termination benefit expenses

Executive Committee remuneration includes salaries, fringe benefits and short term incentives.

Post-employment benefits include expenses accrued in accordance with local legal pension arrangements for the members of the Executive Committee and expenses related to defined contribution pension insurances taken in addition to the President and CEO.

The Group does not have any other commitments related to post-employment benefits.

Share based benefits include payments relating to management long term incentive schemes (further details in the note 29).

Remuneration of the President and CEO is also included in the table presented above.

T€	2018	2017
Executive Committee remuneration: the President and CEO		
Luomakoski, Jyri, President and CEO	720.5	811.9

Number	2018	2017
Shares received by the executive committee		
Luomakoski Jyri, President and CEO	3,318	2,862
Other members of executive committee	7,003	7,646
Total	10,321	10,857

The retirement age of the President and CEO will be determined in accordance with the Employees' Pensions Act (TyEL), however the Group and the President and CEO may agree for the President and CEO to retire at the age of 63 years. The President and CEO's pension accrues in accordance with the Employee's Pensions Act (TyEL). The Group has also taken a defined contribution pension insurance for the President and CEO, to which the company paid €40,000 in 2018. The Group has further concluded a pension arrangement based on a capitalisation agreement for the benefit of the President and CEO, to which the Group paid €50,000 in 2018.

	2018		2017	
	Gross annual fee (EUR)	Shares received (number)	Gross annual fee (EUR)	Shares received (number)
Board remuneration				
Paasikivi Annika, Chair from 13 March 2018	109.2	2,498	62.2	1,181
Aaltonen-Forsell Pia, Chair of the Audit Committee from 13 March 2018	64.5	1,416	52.4	1,060
Falk Johan, from 13 March 2018	52.3	1,277	-	-
Eloranta Jorma, until 13 March 2018	1.8	-	98.8	2,121
Lengauer Markus	64.5	1,416	59.0	1,060
Lindholm Casimir, from 13 March 2018	52.9	1,277	-	-
Nygren Eva	54.7	1,277	54.2	1,060
Rosendal Jari, until 13 March 2018	1.8	-	54.2	1,060
Ihamuotila Timo, until 20 March 2017	-	-	1.8	-
Total	401.7	9,161	382.6	7,542

The Company has taken a voluntary pension insurance for Board members. Upon retirement, this entitles them to a pension according to TyEL, the Finnish Employees' Pensions Act.

Other related party disclosures

The Group had not issued any loans to the persons classified as related party on 31 December 2018 or 31 December 2017.

Persons classified as related party to the company have carried out minor transactions with companies belonging to the Group.

The shareholdings of the management and Board members are presented under the Corporate Governance section of the Financial Statements.

M€	2018	2017
Transactions with associated companies		
Continuing operations		
Purchases	4.3	2.4
Balances at the end of period		
Accounts payable and other liabilities	0.4	0.2

Shares and holdings

Subsidiaries

Name	Country and domicile
Uponor Beteiligungs GmbH	Germany, Hassfurt
Uponor GmbH	Germany, Hassfurt
Uponor S.A.R.L.	France, Saint-Priest
Uponor S.r.l.	Italy, Vimercate
Uponor Holding GmbH	Germany, Hassfurt
KaMo GmbH	Germany, Ehingen
Delta Systemtechnik GmbH (95% Uponor Holding GmbH, 5% KaMo Frischwarmwassersysteme GmbH)	Germany, Celle
Uponor Hispania, S.A.U.	Spain, Móstoles
Uponor A/S	Denmark, Brøndby
Uponor Eesti Oü	Estonia, Tallinn
Uponor Suomi Oy	Finland, Lahti
Uponor Business Solutions Oy	Finland, Vantaa
UWater Oy	Finland, Tampere
Uponor Hong Kong Ltd	Hong Kong
Uponor Korea Co., Ltd.	Korea, Kyungki-do
Uponor (China) Plumbing Systems Co., Ltd.	China, Taicang
Uponor Kft. (Uponor Épületgépészeti Korlátolt Felelősségű Társaság)	Hungary, Budapest
SIA Uponor Latvia	Latvia, Riga
UAB Uponor	Lithuania, Vilnius
Uponor, s.r.o.	Czech Rep., Prague
Uponor AS	Norway, Vestby
Uponor Vertriebs GmbH	Austria, Wiener Neudorf
Uponor Sp. z o.o.	Poland, Błonie
Uponor Portugal – Sistemas para Fluidos, Lda. (99.97 % Uponor Corporation, 0.03 % Uponor Hispania, S.A.U)	Portugal, V.N. Gaia
Uponor AG in Liquidation (*)	Switzerland, Pfungen
JSC "Uponor Rus"	Russia, Moscow
Uponor Innovation AB	Sweden, Borås
Uponor AB	Sweden, Virsbo
Uponor Limited	England, Watford
Uponor Building Energy Limited (*)	England, Watford
UPONOR, s.r.o.	Slovakia, Bratislava
Uponor NA Holding, Inc.	USA, Delaware
Uponor NA Asset Leasing, Inc.	USA, Delaware
Uponor NA Investment LLC	USA, Delaware
Uponor North America, Inc.	USA, Delaware
Tulsa Pipe Plant, Inc. (*)	USA, Delaware
Hot Water Systems North America, Inc.	USA, Delaware
Uponor Ltd.	Canada, Saskatchewan
Radiant Technology, Inc.	USA, Delaware
Uponor, Inc.	USA, Illinois
Uponor Innovations, LLC	USA, Delaware

Name	Country and domicile
Uponor Trading (Beijing) Co., Ltd.	China, Beijing
Uponor Romania S.R.L.	Romania, Bucharest
Uponor Insurance Limited	Guernsey
Uponor Pty Ltd (*)	Australia, Sydney
Uponor Infra Oy (55.3% Uponor Corporation, 44.7% KWH Group Ltd)	Finland, Helsinki
Jita Oy	Finland, Virrat
Uponor Infra AB	Sweden, Virsbo
Uponor Infra A/S	Denmark, Holbæk
Uponor Infra AS	Norway, Vestby
Uponor Infra Ltd.	Canada, Mississauga
Uponor Infra Limited (*)	England, Milton Keynes
Uponor Infra Sp. z o.o.	Poland, Warsaw
Uponor Infra Oü	Estonia, Tallinn
Koy Tuusulan Pakkasraitti 12	Finland, Tuusula
KWH PIPE (INDIA) LIMITED (*)	India, Mumbai
Uponor Infra Fintherm a.s.	Czech Rep., Prague
KWH Pipe Espana SA (*)	Spain, Madrid
KWH Pipe (Portugal) Tubos Lda. (*)	Portugal, Palmela

Associated companies and joint ventures

Name	Country and domicile
Punitec GmbH & Co. KG (36%)	Germany, Gochsheim
Punitec Verwaltungs GmbH (36%)	Germany, Gochsheim
Phyn Oy (50%)	Finland, Helsinki
Phyn LLC (50%)	USA, Delaware

(*) Dormant company

32. Events after the balance sheet date

After the balance sheet date, no significant events have taken place within the Group.

Parent company financial statements (FAS)

Parent company income statement

M€	Note	2018	2017
Net sales	2	9.5	11.3
Personnel expenses	4	7.6	6.4
Depreciation and impairments	5	0.2	0.2
Other operating expenses	3	9.4	11.5
Operating loss		-7.7	-6.8
Financial income and expenses	6	42.4	44.8
Profit before appropriations and taxes		34.7	38.0
Appropriations	7	2.5	2.3
Income taxes	8	-0.1	-0.3
Profit for the period		37.1	40.0

Parent company balance sheet

M€	Note	31 Dec 2018	31 Dec 2017
Assets			
Non-current assets			
Intangible assets			
Intangible rights		0.5	0.3
Total intangible assets	9	0.5	0.3
Tangible assets			
Machinery and equipment		0.4	0.2
Total tangible assets	9	0.4	0.2
Non-current investments			
Shares in subsidiaries		256.3	290.4
Shares in associated companies		2.6	1.6
Other shares and holdings		0.0	0.0
Loan receivables		250.9	214.0
Total non-current investments	10	509.8	506.0
Total non-current assets		510.7	506.5
Current assets			
Non-current receivables			
Deferred tax assets		0.3	0.3
Total non-current receivables	11	0.3	0.3
Current receivables			
Accounts receivable		1.4	0.9
Loan receivables		3.7	34.5
Accruals		2.1	4.7
Other receivables		64.2	57.5
Total current receivables	12	71.4	97.6
Cash and cash equivalents		27.6	86.0
Total current assets		99.3	183.9
Total assets		610.0	690.4

M€	Note	31 Dec 2018	31 Dec 2017
Liabilities and shareholders' equity			
Shareholders' equity			
Share capital		146.4	146.4
Share premium		50.2	50.2
Unrestricted equity		0.1	0.1
Retained earnings		111.3	108.9
Profit for the period		37.1	40.0
Total shareholders' equity	13	345.1	345.6
Accumulated appropriations			
Depreciation difference		0.2	0.2
Total accumulated appropriations		0.2	0.2
Provisions	14	1.6	1.7
Liabilities			
Non-current liabilities			
Loans from financial institutions		170.0	170.0
Total non-current liabilities	15	170.0	170.0
Current liabilities			
Bonds		-	80.0
Accounts payable		1.1	1.1
Accruals		2.7	2.0
Other current liabilities		89.3	89.8
Total current liabilities	16	93.1	172.9
Total liabilities		263.1	342.9
Total liabilities and shareholders' equity		610.0	690.4

Parent company cash flow statement

M€	1 Jan–31 Dec 2018	1 Jan–31 Dec 2017
Cash flow from operations		
Operating profit / loss	-7.7	-6.8
Depreciation	0.2	0.2
Other non-cash items	-0.1	-0.1
Income taxes paid	1.0	-2.5
Net cash from operations	-6.6	-9.2
Change in working capital		
Receivables, increase (-) / decrease (+)	-3.9	3.3
Non-interest-bearing liabilities, increase (-) / decrease (+)	-10.1	6.2
Cash pool receivables, increase (-) / decrease (+)	-3.9	-0.3
Cash pool payables, increase (+) / decrease (-)	-2.9	-7.0
Change in working capital	-20.8	2.2
Dividends received	59.6	54.7
Group contributions	2.3	14.1
Change in treasury shares	-1.8	0.0
Cash flow from operations	32.7	61.8
Cash flow from investments		
Purchase of fixed assets	-0.5	-0.3
Other current investments	-1.0	-10.0
Granted loans	-75.9	-42.1
Loan repayments	66.1	15.4
Changes in investments in subsidiaries	-1.3	0.7
Repayment of equity - Group	27.7	0.0
Interests received	11.3	6.9
Dividends received	0.0	0.0
Cash flow from investments	26.4	-29.4
Cash flow before financing	59.1	32.4
Cash flow from financing		
Borrowings of debt	124.9	267.0
Repayments of debt	-204.9	-167.0
Change in other short term debt	0.0	-14.1
Interests paid	-1.7	-2.3
Dividends paid	-35.8	-33.6
Cash flow from financing	-117.5	50.0
Change in cash and cash equivalents	-58.4	82.4
Cash and cash equivalents at 1 January	86.0	3.6
Cash and cash equivalents at 31 December	27.6	86.0
Changes according to balance sheet	-58.4	82.4

Notes to the parent company financial statements

1. Accounting principles

The Parent Company's Financial Statements have been prepared according to Generally Accepted Accounting Principles in Finland. Uponor Group's financial statements have been prepared in accordance with International Financial Reporting Standards (IFRS), and the parent company observes the Group's accounting policies whenever this has been possible. Presented below are the accounting policies in which the practice differs from the Group's accounting policies. In other respects, the Group's accounting policies are applied.

Net sales

Parent company's business consists of Group functions and turnover of the service charges to the Group companies.

Income taxes

Income taxes presented in the income statement consist of accrued taxes for the financial year and tax adjustments for prior years.

Loan arrangement fee

Loan arrangement fee has been accrued linearly to current assets.

Pension arrangements

The company's pension liabilities are handled through a pension insurance company. All expenses incurred in pension benefits are recorded as expenses in the period during which the corresponding work was performed.

Financial assets, financial liabilities and derivative contracts

Derivatives are measured at their fair value, which are based on market prices on the closing day. Changes in the value of financial assets and liabilities, including derivatives, are recorded as gain or loss through profit and loss as financial income and expenses. Changes in the fair value of different derivative groups are shown in the Note 6. Parent company does not apply hedge accounting. Otherwise the methods of measuring derivative contracts are explained in the section on the Group's accounting standards. The fair values of different derivative groups are shown in the note 18. The use of derivatives is described in the note 27 in Group notes to the consolidated financial statements.

Leases

All leasing payments have been treated as rental expenses.

Shares in group companies

The balance sheet value of shares in group companies consists of historical costs less impairments.

2. Net sales

M€	2018	2017
Income from services		
- From group companies	9.5	11.3
Total	9.5	11.3

3. Other operating expenses

M€	2018	2017
Other operating expenses		
Travel expenses	0.5	0.6
Purchased services	1.2	2.4
Other	7.7	8.5
Total	9.4	11.5

M€	2018	2017
Auditor's fees		
- Audit fees	0.1	0.1

4. Personnel expenses

M€	2018	2017
Salaries and bonuses	6.8	5.5
Pension expenses	0.6	0.7
Other personnel expenses	0.2	0.2
Total	7.6	6.4

During financial period company employed:

Employees, average	52	53
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Salaries and emoluments paid to the President and CEO and the board of directors T€^{*)}

President and CEO	720.5	811.9
Board of Directors	401.7	382.6
Total	1,122.2	1,194.5

^{*)} specification per persons has been reported in the notes to the consolidated financial statements.

Loans to company directors

At 31 December 2018, neither the President and CEO of the company nor the members of the Board of Directors had loans outstanding from the company or its subsidiaries.

President and CEO's pension obligations

The retirement age of the President and CEO will be determined in accordance with the Employee's Pension Act (TyEL), however, both the company and the President and CEO may agree on the President and CEO to retire at the age of 63 years.

The President and CEO's pension accrues in accordance with the Employee's Pension Act (TyEL). The company has also taken out a defined contribution pension insurance for the President and CEO, to which the company paid €40,000 in 2018. The company has further

concluded a pension arrangement based on capitalisation agreement for the benefit of the President and CEO to which the company has paid €50,000 in 2017. In 2018 that the company payment was €50,000.

5. Depreciations

M€	2018	2017
Intangible assets	0.1	0.1
Tangible assets	0.1	0.1
Total	0.2	0.2

6. Financial income and expenses

M€	2018	2017
Interest income	0.2	0.1
Intercompany interest income	9.8	10.4
Dividend income	0.0	0.0
Dividend income from subsidiaries	59.6	54.7
Interest expenses	-3.4	-3.2
Intercompany interest expenses	-0.3	-0.1
Other financial expenses	-0.1	-0.1
Impairments on non-current investments	-19.0	-14.4
Gains and losses from derivatives		
Realised	-9.6	7.1
Unrealised	-0.1	0.9
Exchange differences		
Realised	1.7	0.6
Unrealised	3.6	-11.2
Financial income and expenses total	42.4	44.8

7. Appropriations

M€	2018	2017
Change in depreciation difference	0.0	0.0
Group contributions	2.5	2.3
Total	2.5	2.3

8. Income taxes

M€	2018	2017
For the financial period	0.0	0.0
For previous financial periods	-	-0.3
Change in deferred taxes	0.0	0.0
Total	0.0	-0.3

9. Intangible and tangible assets

2018 M€	Intangible rights	Machinery and equipment	Intangible and tangible assets
Acquisition costs 1 Jan	3.1	0.7	3.8
Increases	0.2	0.3	0.5
Acquisition costs 31 Dec	3.3	1.0	4.3
Accumulated depreciations 1 Jan	2.7	0.5	3.2
Depreciation for the financial period	0.1	0.1	0.2
Accumulated depreciations 31 Dec	2.8	0.6	3.4
Book value 31 December	0.5	0.4	0.9

2017 M€	Intangible rights	Machinery and equipment	Intangible and tangible assets
Acquisition costs 1 Jan	2.9	0.5	3.4
Increases	0.2	0.2	0.4
Acquisition costs 31 Dec	3.1	0.7	3.8
Accumulated depreciations 1 Jan	2.6	0.5	3.1
Depreciation for the financial period	0.1	0.1	0.2
Accumulated depreciations 31 Dec	2.7	0.6	3.3
Book value 31 December	0.3	0.2	0.5

10. Non-current investments

M€	2018	2017
Shares in subsidiaries book value 1 Jan	290.3	305.5
Increases	1.3	0.0
Decreases	27.7	0.8
Shares in subsidiaries acquisition cost 31 Dec	263.9	304.7
Impairments	7.6	14.4
Shares in subsidiaries book value 31 Dec	256.3	290.3
Associated companies 1 Jan	1.6	1.6
Increases	1.0	0.0
Associated companies 31 Dec	2.6	1.6
Other shares and holdings 1 Jan	0.0	0.0
Other shares and holdings 31 Dec	0.0	0.0
Loans receivables		
- From group companies	250.5	208.8
- Subordinated loan	-	5.0
- Others	0.4	0.2
Loan receivables total	250.9	214.0
Total	509.8	506.0

Impairment in subsidiary shares in 2018 were related to Uponor Asia Oy and Uponor (China) Plumbing Systems Co. Ltd. Write-downs of loan receivables from Uponor Pty., Uponor (China) Plumbing Systems Co. Ltd. And Uponor Hong Kong Ltd. Included in financial costs. (See Note 6).

11. Non-current receivables

M€	2018	2017
Deferred tax assets	0.3	0.3
Total	0.3	0.3

Deferred tax asset is recorded for obligatory provisions in the balance sheet. Deferred tax asset includes short-term tax assets totalling €0.07 million.

12. Current receivables

M€	2018	2017
From group companies		
- accounts receivable	1.4	0.9
- loan receivable	13.7	34.5
- accruals	1.1	3.3
- other receivables	48.8	44.8
Total	65.0	83.5

M€	2018	2017
From external parties		
- accounts receivable	0.0	0.0
- accruals	1.0	1.4
- other receivables	5.4	12.7
Total	6.4	14.1
Total current receivables	71.4	97.6
Accruals		
Interest income	1.1	3.4
Taxes	-	1.0
Others	1.0	0.3
Total	2.1	4.7

13. Changes in equity

M€	2018	2017
Restricted equity		
Share capital on 1 Jan	146.4	146.4
Share capital on 31 Dec	146.4	146.4
Share premium on 1 Jan	50.2	50.2
Share premium on 31 Dec	50.2	50.2
Total restricted equity	196.6	196.6
Unrestricted equity		
Unrestricted equity 1 Jan	0.1	0.1
Unrestricted equity 31 Dec	0.1	0.1
Retained earnings 1 Jan	148.9	142.5
Dividend payments	-35.8	-33.7
Treasury shares	-1.8	0.1
Retained earnings 31 Dec	111.3	108.9
Profit for financial period	37.1	40.0
Total unrestricted equity	148.5	149.1
Shareholders' equity 31 December	345.1	345.7
Distributable funds		
Unrestricted equity	0.1	0.1
Retained earnings	113.6	109.4
Profit for the period	37.1	40.0
Treasury shares	-2.2	-0.4
Distributable funds 31 Dec	148.5	149.1

14. Provisions

M€	2018	2017
Environmental provision	1.6	1.7
Total	1.6	1.7

15. Non-current liabilities

M€	2018	2017
Loans from financial institutions	170.0	170.0
Total	170.0	170.0

Maturity of non-current interest bearing liabilities

M€	2019	2020	2021	2022
Loans from financial institutions	-	-	70.0	100.0
Total	-	-	70.0	100.0

16. Current liabilities

M€	2018	2017
From group companies		
- accounts payable	0.2	0.4
- other current liabilities	85.4	87.8
Total	85.6	88.2

From external parties		
- bonds	-	80.0
- accounts payable	1.0	0.7
- accruals	2.7	2.0
- other current liabilities	3.8	2.1
Total	7.5	84.8

Total current liabilities	93.1	172.9
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Accrued liabilities

Personnel expenses	0.7	0.9
Bonuses	1.0	0.5
Taxes	0.2	0.2
Interest	0.5	0.2
Others	0.3	0.2
Total	2.7	2.0

17. Contingent liabilities

M€	2018	2017
On behalf group companies		
Guarantees issued	42.6	46.8
Guarantees issued	42.6	46.8

Operating lease commitments		
Due within next 12 months	0.2	0.2
Due later	0.2	0.1
Total lease commitments	0.4	0.3

The parent company has a 10 years fixed-term rental agreement on its premises. Rental period started on 1 March 2013.

Rental lease obligations		
Due within next 12 months	0.6	0.6
Due later	1.8	2.5
Total rental lease obligations	2.4	3.1

Total	45.4	50.2
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Letter of Comfort commitments undertaken on behalf of subsidiaries are not included in the above figures.

18. Derivative contracts

M€	2018	2017
	Nominal value	

Interest derivatives:		
Interest rate swaps	50.0	100.0
Interest rate options	70.0	70.0

	Fair value	
Interest derivatives:		
Interest rate swaps	-0.6	-0.5
Interest rate options	0.0	0.0

	Nominal value	
Foreign currency derivatives:		
Forward agreements	277.2	211.9
Intragroup forward agreements	139.0	96.8

Commodity derivatives:		
Electricity derivatives	4.1	4.7
Energy, MWh	162,118	186,215

	Fair value	
Foreign currency derivatives:		
Forward agreements	1.9	1.1
Intragroup forward agreements	-0.8	1.8

Commodity derivatives:		
Electricity derivatives	2.6	0.4

Auditor's report

To the Annual General Meeting of Uponor Corporation

Report on the Audit of Financial Statements

Opinion

We have audited the financial statements of Uponor Corporation (business identity code 0148731-6) for the year ended 31 December, 2018. The financial statements comprise the consolidated statement of financial position, 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, financial performance and cash flows in accordance with International Financial Reporting Standards (IFRS) as adopted by the EU,
- the financial statements give a true and fair view of the parent company's financial performance and financial position in accordance with the laws and regulations governing the preparation of 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 4 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 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
Goodwill impairment assessments	
<p>Refer to Note 10</p> <p>Consolidated financial statements includes goodwill of EUR 83.5 million.</p> <p>Management has conducted annual goodwill impairment testing and as a result of the testing conducted, management assessed that no impairment was needed.</p> <p>Goodwill impairment testing requires substantial management judgment over the projected future business performance, cash flows and applied discount rate.</p> <p>Certain assumptions made by management in the impairment review are key judgments, including gross profit rate, net sales and discount rates used. As described in note 10, management concluded that goodwill related to Uponor Infra, EUR 9.5 million, is more sensitive to risk of impairment.</p> <p>This matter is a significant risk of material misstatement referred to in EU Regulation No 537/241, point (c) of Article 10(2).</p>	<p>As part of our audit procedures we assessed the key assumptions by each cash generating unit in impairment testing performed by management by:</p> <ul style="list-style-type: none">• assessing the growth and profitability estimates and comparing them to historical performance;• comparing the estimates with the latest approved budgets and strategic plans;• comparing applied discount rates to independent third party sources;• testing the accuracy and the underlying calculations. <p>We also assessed the adequacy of the related disclosure information.</p>

Key audit matter	How our audit addressed the key audit matter
Provisions and contingent liabilities	
<p>Refer to Note 21 and 24</p> <p>The provisions in total amounted to EUR 30.2 million in the consolidated financial statements of Uponor. In addition, the Group has disclosed significant open legal cases and other contingent liabilities in Note 24.</p> <p>The assessment of the existence of the present legal or constructive obligation, analysis of the probability of the related payment and analysis of a reliable estimate, requires management's judgement to ensure appropriate accounting or disclosures.</p> <p>Due to the level of judgement relating to recognition, valuation and presentation of provisions and contingent liabilities, this is considered to be a key audit matter.</p>	<p>Our audit procedures included, among others, assessing the appropriateness of the management's judgement.</p> <p>We assessed the completeness of provisions through review of minutes of the Board meetings and decisions. We also had discussions with the group's legal counsel and obtained formal confirmations from the group's external counsels where appropriate.</p> <p>We have assessed the appropriateness of presentation of the provisions and contingent liabilities in the consolidated financial statements.</p>

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

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

In preparing the financial statements, the Board of Directors and the President and CEO are responsible for assessing the parent company's and the group's ability to continue as going concern, disclosing, as applicable, matters relating to going concern and using the going concern basis of accounting. The financial statements are prepared using the going concern basis of accounting unless there is an intention to liquidate the parent company or the group or cease operations, or there is no realistic alternative but to do so.

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

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

We also provide those charged with governance with a statement that we have complied with relevant ethical requirements regarding independence, and communicate with them all relationships and other matters that may reasonably be thought to bear on our independence, and where applicable, related safeguards.

From the matters communicated with those charged with governance, we determine those matters that were of most significance in the audit of the financial statements of the current period and are therefore the key audit matters. We describe these matters in our auditor's report unless law or regulation precludes public disclosure about the matter or when, in extremely rare circumstances, we determine that a matter should not be communicated in our report because the adverse consequences of doing so would reasonably be expected to outweigh the public interest benefits of such communication.

Other Reporting Requirements

Information on our audit engagement

We were first appointed as auditors by the Annual General Meeting on 17 March 2010, and our appointment represents a total of uninterrupted engagement of 9 years.

Other information

The Board of Directors and the President and CEO 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 report thereon. We have obtained the report of the Board of Directors prior

to the date of the 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 this fact. We have nothing to report in this regard.

Other opinions

We support that the financial statements should be adopted. The proposal by the Board of Directors regarding the treatment of distributable funds is in compliance with the Limited Liability Companies Act. We support that the Board of Directors of the parent company and the President and CEO should be discharged from liability for the financial period audited by us.

Vantaa, 13 February 2019
Deloitte Oy
Audit Firm

Jukka Vattulainen
Authorised Public Accountant (KHT)

Quarterly data

	2018				2017			
	10–12	7–9	4–6	1–3	10–12	7–9	4–6	1–3
Net sales, M€	282.6	311.9	324.9	276.9	279.4	317.5	308.4	265.1
- Building Solutions – Europe	128.5	131.8	138.7	125.2	125.5	136.3	135.6	124.3
- Building Solutions – North America	90.5	88.9	83.5	77.6	79.5	91.2	79.3	78.2
- Building Solutions – North America, \$	103.3	103.8	98.8	95.7	94.2	106.8	88.7	83.5
- Uponor Infra	65.3	92.6	104.1	75.3	75.4	90.6	94.3	63.1
Gross profit, M€	94.2	106.1	107.3	93.2	95.0	109.3	98.4	91.4
- Gross profit, %	33.3	34.0	33.0	33.7	34.0	34.4	31.9	34.5
Operating profit, M€	17.1	44.6	28.0	17.0	18.0	40.4	22.9	14.6
- Building Solutions – Europe	5.1	9.0	11.0	6.0	10.2	14.4	9.1	6.3
- Building Solutions – North America	13.7	13.9	8.8	10.2	9.6	19.0	10.5	10.6
- Building Solutions – North America, \$	15.7	16.3	10.4	12.5	11.5	21.9	11.7	11.4
- Uponor Infra	-0.2	21.9	10.1	3.3	1.8	7.4	4.7	-1.9
- Others	-1.2	-1.7	-1.3	-1.0	-2.5	0.2	-1.0	-0.9
Operating profit, % of net sales	6.1	14.3	8.6	6.1	6.4	12.7	7.4	5.5
- Building Solutions – Europe	4.0	6.9	7.9	4.8	8.1	10.5	6.8	5.0
- Building Solutions – North America	15.2	15.8	10.5	13.1	12.2	20.8	13.2	13.6
- Uponor Infra	-0.4	23.6	9.8	4.4	2.5	8.1	5.0	-3.0
Profit for the period, M€	6.7	30.0	17.3	9.2	15.1	28.6	14.3	7.4
Balance sheet total, M€	786.6	842.8	905.1	855.5	865.8	820.2	825.9	812.9
Earnings per share, €	0.08	0.34	0.19	0.11	0.19	0.35	0.18	0.11
Equity per share, €	4.08	4.02	3.66	3.43	3.83	3.68	3.35	3.25
Market value of share capital, M€	631.0	824.3	1,006.6	993.4	1,228.4	1,073.2	1,164.7	1,216.0
Return on investment, % (p.a.)	17.2	19.1	13.5	9.9	16.3	19.4	13.6	9.9
Net interest-bearing liabilities at the end of the period, M€	139.2	156.7	218.3	211.9	151.5	161.8	208.9	224.0
Gearing, %	39.4	42.2	64.2	66.3	43.5	48.2	67.6	74.5
Gearing, % rolling 4 quarters	53.0	54.1	55.6	56.4	58.4	59.8	61.9	59.6
Gross investment, M€	17.8	11.3	15.0	9.9	26.0	18.1	11.5	7.8
- % of net sales	6.3	3.6	4.6	3.6	9.3	5.7	3.7	2.9

Information for shareholders

Annual General Meeting

Uponor Corporation's Annual General Meeting will be held on Monday, 18 March 2019 at 15:00 EET at the Helsinki Exhibition and Convention Centre, Messuaukio 1, Helsinki, Finland.

A shareholder who is registered in the shareholders' register of the company and who wants to participate in the general meeting, shall register for the meeting no later than Wednesday 13 March 2019 at 10:00 EET (Finnish time), by which time the registration shall arrive at the company. The Registration can be done:

- via our IR website at investors.uponor.com or
- by telephone +358 20 770 6883 on week days from 09:00 to 16:00 EET (Finnish time) or
- by mail addressed to Uponor Corporation, Legal Services, P.O. Box 37, FI-01511 Vantaa, Finland.

Payment of dividends

The Board of Directors proposes to the Annual General Meeting that a dividend of €0.51 per share be distributed for the financial period 2018. The dividend shall be paid in two instalments. The first instalment of €0.25 per share shall be paid to a shareholder registered as a shareholder in the shareholder register maintained by Euroclear Finland Ltd on the record date of the dividend payment on 20 March 2019. The payment date proposed by the Board for this instalment is 27 March 2019.

The second instalment of €0.26 per share shall be paid in September 2019. The second instalment shall be paid to a shareholder registered as a shareholder in the shareholders register maintained by Euroclear Finland Ltd on the dividend record date, which, together with the payment date, shall be decided by the Board of Directors in its meeting scheduled for 10 September 2019. The dividend record date for the second instalment would be 12 September 2019 and the dividend payment date 19 September 2019.

Long-term financial targets

	Target	2018	2017
Organic net sales growth*	2018E: 5.4%	4.9%	6.5%
EBIT margin	>10%	8.3%	8.2%
Return on investment (ROI)	>20%	17.2%	16.3%
Gearing (annual average of quarters)**	30–70	53.0	43.5
Dividend payout	> 50% of earnings	70.8%	59.0%

* > GDP +3ppts (GDP growth based on a weighted average growth in the top 10 countries)

** As a result of adoption of IFRS 16 Leases standard as of 1 January 2019, Uponor converted its gearing target range from 30–70 to 40–80.

Share-specific key figures

	2018	2017
Market value of share capital at year-end, M€	631.0	1,228.4
Earnings per share (fully diluted), €	0.72	0.83
Dividend, total, M€	¹⁾ 37.2	35.8
Dividend per share, €	¹⁾ 0.51	0.49
Effective share yield, %	¹⁾ 5.9	2.9
Issue-adjusted share prices		
- highest, €	17.62	17.79
- lowest, €	8.13	13.3
Number of shareholders	20,341	19,191

¹⁾ proposal of the Board of Directors

The definitions of key ratios are presented in the financial statements.

More information on shares and shareholders on page 27.

Analysts covering Uponor

According to the information available to the company, at least the following analysts made investment analyses of Uponor in 2018. These parties follow Uponor on their own initiative, and the company is not responsible for their statements. Up-to-date analyst contact information available at <https://investors.uponor.com>.

Carnegie Investment Bank AB

Tommy Ilmoni

Danske Bank Plc

Ari Järvinen

Handelsbanken

Mika Karppinen

Nordea Bank Finland Plc

Svante Krokfors

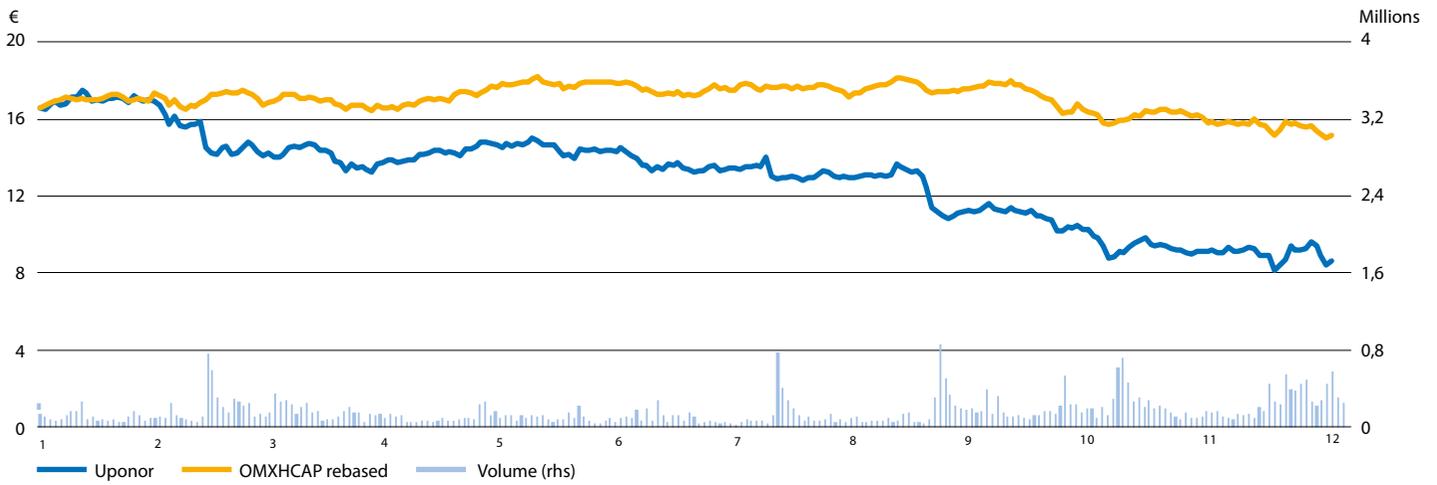
Pohjola Bank Plc

Matias Rautionmaa

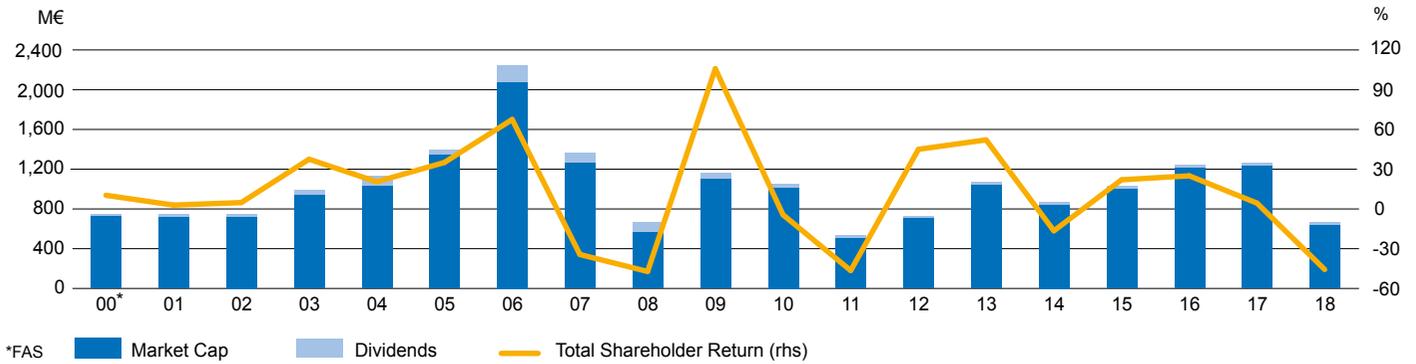
SEB Equities

Anssi Kiviniemi

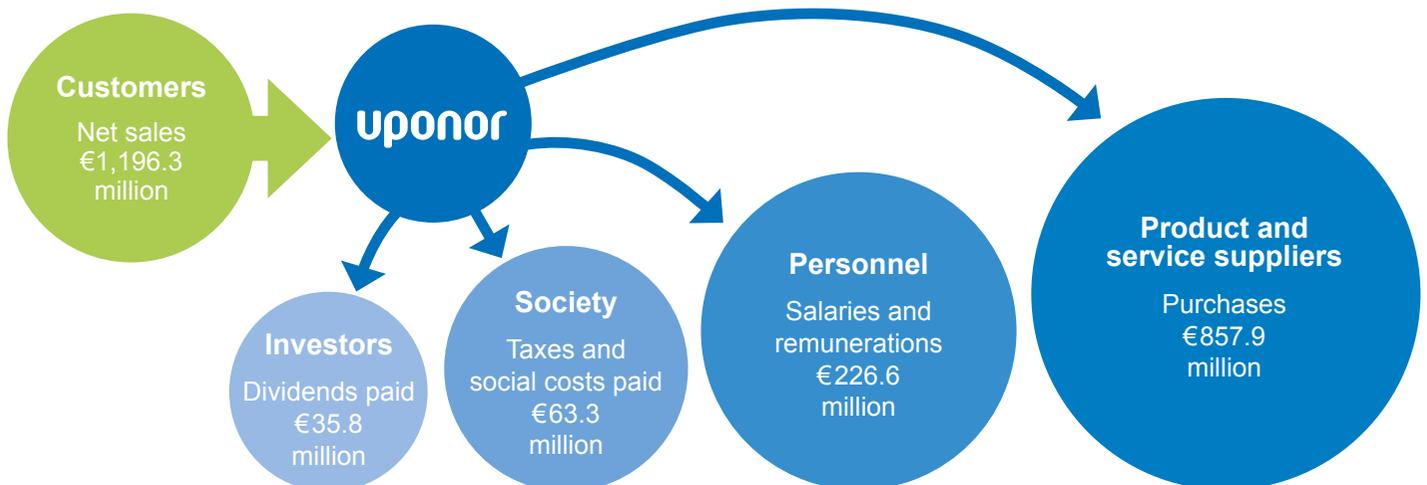
Share performance and volumes in 2018



Shareholder value development 2000–2018



Financial impact on stakeholders 2018



Investor Relations at Uponor

Enquiries

ir@uponor.com

Meeting requests

Päivi Dahlqvist, Executive Assistant
Tel. +358 (0)20 129 2823
paivi.dahlqvist@uponor.com

Other IR contacts

Jyri Luomakoski, President and CEO
Tel. +358 (0)20 129 2824
jyri.luomakoski@uponor.com

Susanna Inkinen, VP, Communications
and Corporate Responsibility
Tel. +358 (0)20 129 2081
susanna.inkinen@uponor.com

Shareholder enquiries

legal@uponor.com

Reetta Härkki, General Counsel
Tel. +358 (0)20 129 2835
reetta.harkki@uponor.com

Change of address

Shareholders are requested to notify their custodian bank, their brokerage firm, or any other financial institution responsible for maintaining their book-entry securities account of any changes in their mailing address.

Ordering of publications and releases

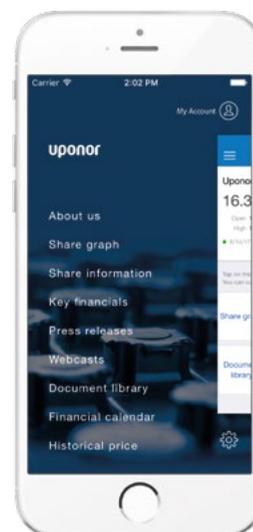
The company publishes its financial reports, stock exchange releases and investor news in Finnish and English on Uponor's investor website. You may order these directly to your email at investors.uponor.com.

Contact Group Communications

Uponor Corporation,
Group Communications
P.O. Box 37, Äyritie 20
FI-01511 Vantaa, Finland
Tel. +358 (0)20 129 2854
communications@uponor.com

Stay up-to-date with Uponor IR App effortlessly on the go

- Customise your settings and enjoy personalised service that comes in 17 languages and with a currency converter
- Watch our webcasts live or recorded
- Monitor our stock performance against other listed companies
- Turn on the push notifications to keep posted on our performance, news and events



Layout: Innocorp Oy
Printing: Markprint Oy, 2019
Paper: Art Gloss 300g / Edixion 120g



Uponor

Uponor Corporation

Äyritie 20

P.O. Box 37

FI-01511 Vantaa

Finland

Tel. +358 (0)20 129 211

www.uponor.com

www.investors.uponor.com

