

2018



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## Key dates in 2019

In 2019, Raute Corporation will publish a half-year report and two interim reports as follows:

January–March on Friday, May 3, 2019

January–June on Wednesday, July 31, 2019

January–September on Wednesday, October 30, 2019

Raute Corporation's Annual General Meeting will be held on Tuesday April 2, 2019 at 6 p.m. at Sibelius Hall, Ankkurikatu 7, Lahti.

## Investor relations

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## Entities monitoring Raute

Inderes Oy

OP Financial Group

Evli Research

Other entities also occasionally draw up reports on our company.

We are not responsible for the estimates presented in analyses or reports.

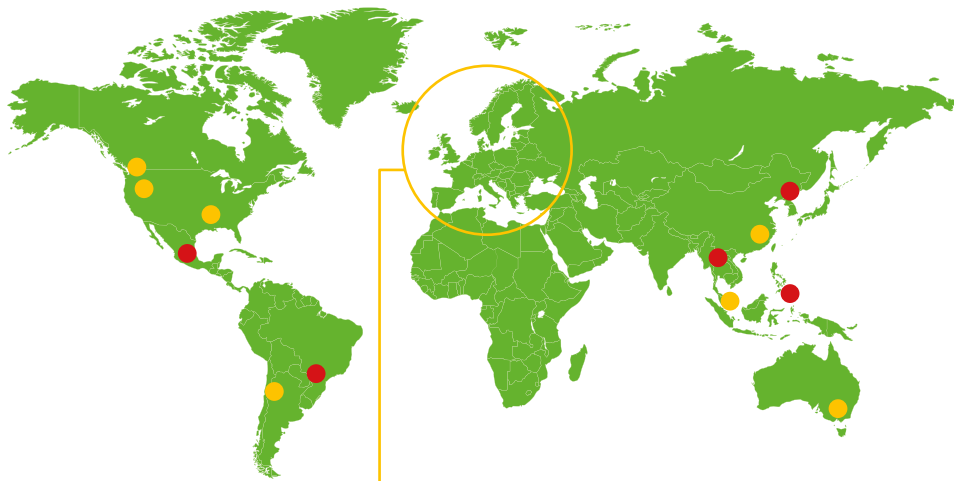
# Global presence, local support

Raute is a leading technology and service supplier in the wood products sector. We are a global market leader in the plywood and LVL industry. More than half of the LVL manufactured in the world is produced on manufacturing machines delivered by Raute.

We participate in the wood-processing value chain by creating value in forest assets through our

sustainable and resource-saving state-of-the-art technology and services.

We are building the 110-year-old Raute's future on a sustainable foundation by continuously developing advanced and resource-efficient solutions for changing customer needs.



● Raute ● Sales agent

**181** net sales (M€)  
2018

**772** employees  
(Dec. 31, 2018)

**10** different  
countries

**1.40** proposed dividend  
distribution (€)

**We abide** by an active dividend policy, the aim of which is to ensure competitive returns for our investors. In dividend payments, we take into account future investment needs and the goal of maintaining a solid equity ratio. Due to the nature of the project business, the dividend is not directly tied to the result.



In 2019, we will continue our efforts to strengthen our position on the emerging markets and to highlight our sustainability themes.

# 110<sup>th</sup> year of operations sets records



## Net sales

**181** M€

2017 | 148 M€



## Operating profit 14.9 M€

2017 | 11.2 M€



## Order intake

**167** M€

2017 | 155 M€



## Order book

**95** M€

2017 | 110 M€

**Raute's** strong positive development continued for the fourth consecutive year. We entered 2018 with a very strong order book and set a new record in our net sales with 22 percent growth. Our operating profit was Raute's best ever. Our growth and the development projects targeting our products and operations are to thank for the improved profitability.

Another record was made in our order intake volume. Geographically, our focus remained on Europe, North America and Russia. Demand for our technology services remained good throughout the year. We are happy with our EUR 167 million order intake. Our order book fell from the start of the year due to our record-breaking net sales but it came to a strong EUR 95 million at the end of the year.

Raute turned 110 in 2018. We celebrated this major milestone by keeping up the good work. In addition to our daily work, we focused more closely on the sustainability aspects of our operations. We already published our responsibility themes in 2017. Last year, we defined in more detail the monitoring of our themes and the projects to improve our key topics.

We are not yet happy with the occupational safety level and development we have achieved. We will continue to intensify our efforts to carry out our development projects.

Our impact on the environment and on the mitigation of climate change is one of our key external responsibility themes. A significant share of our customers' production is used in construction. The carbon captured in wood construction considerably reduces the load on the environment, compared with the growth in the carbon footprint when using other common construction materials. With our technology, customers can carry out their production while at the same time minimizing their climate impact. We are thus doing our bit to save the Earth from climate change.

The general economic outlook changed at the end of last year, becoming more uncertain, particularly due to politics. Of our client base, many established and traditional companies have made major investments over the past few years. Demand for our technology is now shifting towards new types of customers.

# Our strong development continued in our 110<sup>th</sup> year.



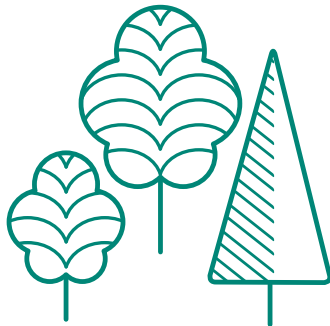
This year began with a strong order book. We are now focusing more on new customers and areas in which investment activity is on the rise, positioning us nicely in terms of advancing development.

I would like to warmly thank all of the parties that enabled our success in 2018. Thank you to our customers for their co-operation and trust. Thank you to our staff for their excellent work and strong commitment to carrying out the heavier workload. Thank you to our shareholders for their trust in us. And finally, a thank you to all of our other partners for contributing to Raute's development and success.

**Tapani Kiiski** President and CEO

# Sustainable trends shaping the value chain

Renewable wood is the raw material for wood processing value chain products that replace products made from fossil or other non-renewable raw materials.



## Sustainable forestry

In sustainable forestry, the management and use of forests is ecologically, financially, socially and culturally sustainable.

## Resource-efficient technology

The foundation for the sustainable and affordable manufacture of wood products is the most resource-efficient use of wood, chemicals and energy.



## Renewable raw material

Wood is a renewable natural raw material, which is growing strongly in popularity worldwide.

## Raute – a partner for life

We create value in forest assets by supplying the wood products industry with processes, machines, equipment and services that enable the profitable and resource-efficient manufacture of wood products.

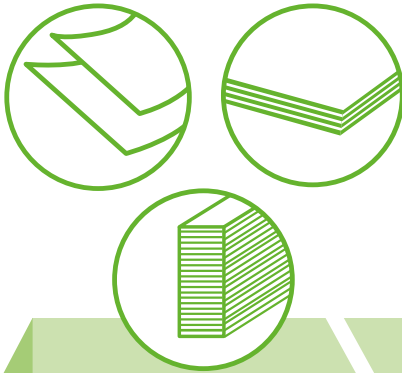
## Key megatrends

- 1 Urbanization and smart infrastructure**  
By 2050, 70 percent of the planet's people will be living in cities.
- 2 Mitigating climate change**  
By 2050, carbon neutrality will create markets for smart ecological solutions valued at EUR 6,000 billion.

- 3 Depletion of natural resources**  
In the future, renewable natural resources will replace fossil raw materials.
- 4 Digitalization and automation**  
Today's technology will be obsolete tomorrow. Technology is developing at an increasing rate.

Source: Sitra





### Long-lasting wood products

Thanks to our new innovations and state-of-the-art technology, our customers in the wood products industry can boost their production and improve the end-product quality. Our customers manufacture long-lasting wood-based panel products: veneer, plywood and LVL.

**Veneer** is a thin wood panel manufactured by peeling or slicing from a log.

**Plywood** is a panel of wood consisting of thin, cross-bonded veneers.

**LVL (Laminated Veneer Lumber)** is a beam made of veneers glued with their grains parallel and then hot pressed; it is used in load-bearing structures.



### Circular economy

The circular economy tries to keep products in use for as long as possible and to reuse their materials efficiently while maintaining the raw materials' value.

Wood-based panel products are long-lasting wood products. After their original life is over, they can be reused, recycled or used as raw material in energy production.

In the future, an increasing proportion of wood products will be recycled.

### End uses

Veneer, plywood and LVL products are used mainly in construction and furniture-making and in the transport vehicle and packaging industries. The use of different wooden structures and components is growing dramatically especially in construction.

Renewability, recyclability and eco-friendliness are sustainable trends that increase the demand for and use of wood products worldwide.



## How the wood processing value chain is changing



Attention is shifting from the carbon footprint to the carbon handprint. In a carbon-neutral future, the winners will be clean technologies, products and solutions that enable customers and other parties in the value chain to reduce their emissions.



The popularity of wood as a raw material is growing and its use in construction is increasing.



Construction is constantly subject to new speed and efficiency requirements. New solutions based on wood panel components are arriving on the markets.



Safety and resource-efficiency requirements for production processes are becoming tighter.



New digital solutions based on automation are becoming more common, enabling new types of business models and services.

# Customer needs changing in all market areas

We have achieved a significant position as a supplier of technology and services in our key markets in Europe, Russia, North America and Chile. We believe that our renewable technology offering targeted at the emerging markets and our globally growing service capability will also strengthen our position in our other target markets.



## > Operating environment

New capacity projects still played a key role in our order intake in 2018. In addition to projects that started up in Europe and Russia, we received a major order from Northeast Asia. Several large new capacity projects are still in the planning phase. New plywood and LVL production capacity is also being generated through modernizations of existing production plants.

**Our customer base** in 2018 comprised some 330 mills to which we supplied complete mills, production lines and line modernizations and offered our comprehensive maintenance service. Of our customers in 2018, 30 were new. Our customer relationships are usually long, just like the investment cycles. The number of production lines with maintenance contracts rose to more than 250.

### **Technology and services for various customer needs**

Of our market areas, *North America* is a mature and service-oriented market where an extensive installed base continuously creates growth opportunities for our service business.

In *South America*, our company holds a significant position as a technology supplier in Chile.

In *Europe*, our customers have invested in recent years in new production capacity for special plywood grades and LVL. We believe that the focus will shift

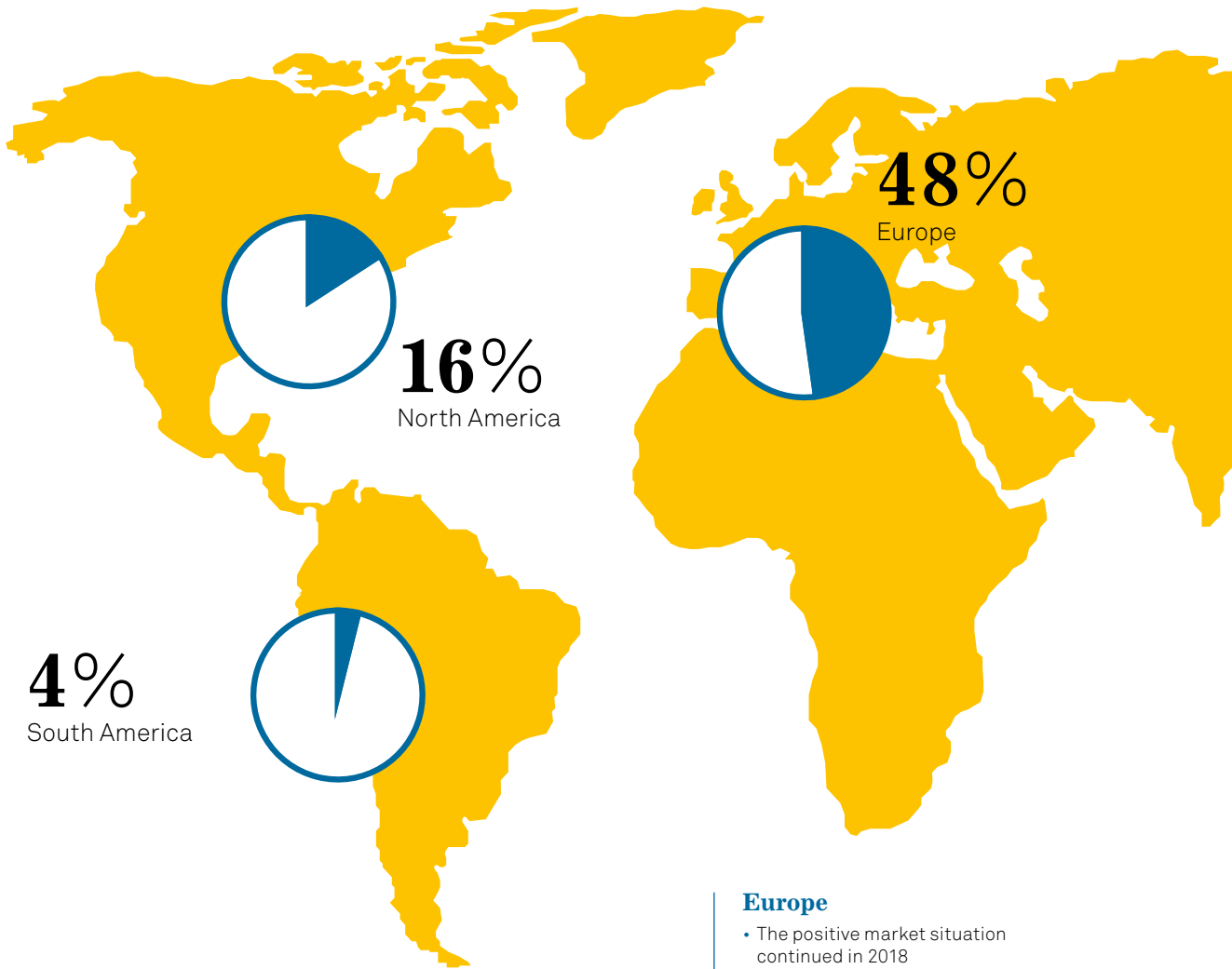
from the building of new capacity towards the upgrading of existing mills. Europe also offers growing opportunities for our services.

On *Africa's* slowly developing markets, the growth in internal market demand brings us new interesting growth opportunities.

In recent years, *Russia's* markets have also developed favorably for us. There, the need for renewal creates demand for modernizations and replacement investments and growth in production volumes for new capacity projects.

In the *Asia-Pacific* area and *China*, demand linked to investments in new technology is slowly taking off. Increasing product quality requirements and rising environmental awareness are creating new opportunities for us. Also demand for services is growing in the Asia-Pacific area.





**4%**  
South America

**16%**  
North America

**48%**  
Europe

### North America

- Deliveries of equipment for the world's largest LVL line began
- Active demand for efficiency improvements to existing production capacity utilization
- New customers through the Metriguard acquisition

### South America

- The growth of plantation forests will lead to the building of new capacity in Chile in the next few years
- Small investments in basic technology in Brazil

### Europe

- The positive market situation continued in 2018
- Mill investment in Finland to increase LVL capacity
- New birch plywood mill investment in Estonia
- New poplar plywood mill investment in Spain
- New softwood plywood mill investment in Spain
- Separate line deliveries to existing customers in Estonia, Lithuania, Latvia and Spain
- Several modernization projects

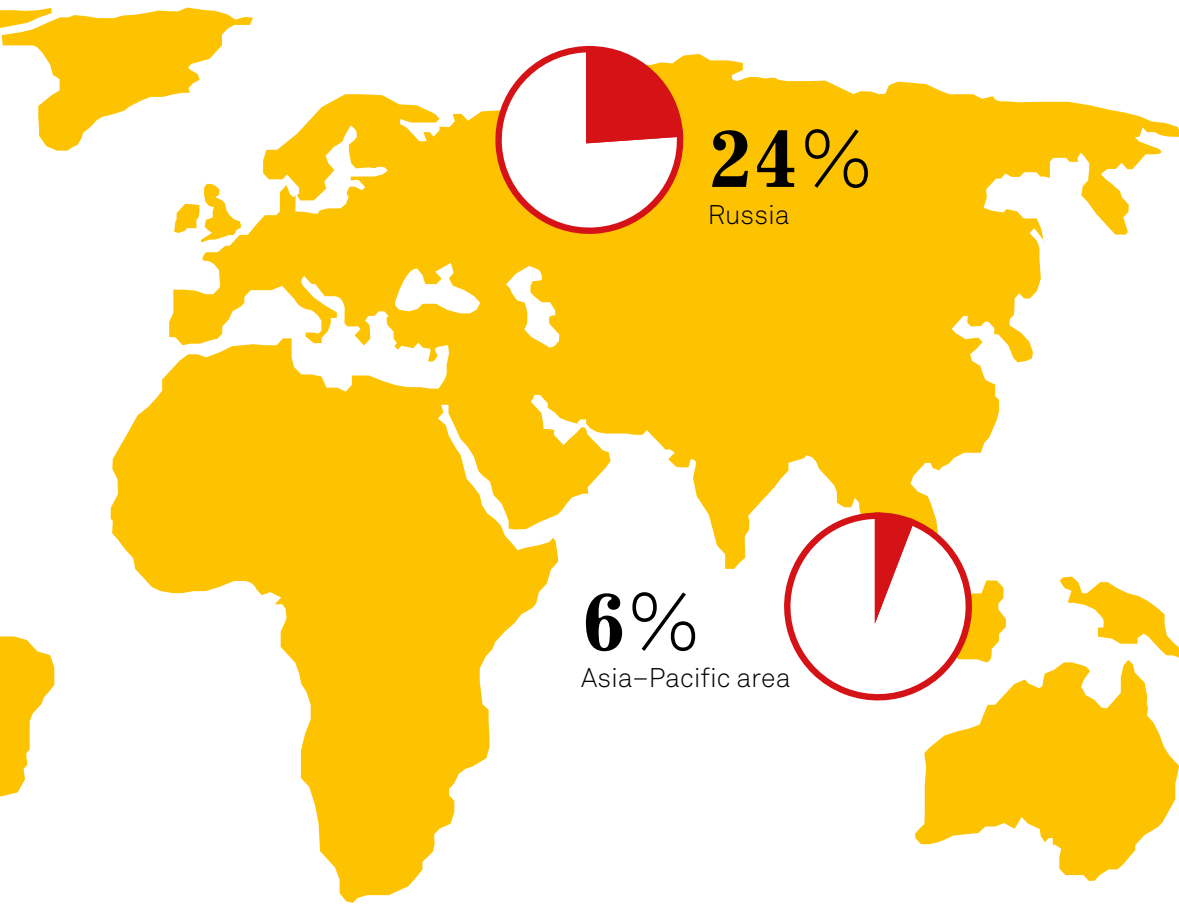
### Africa

- Negotiations on several line- and mill-scale projects continued
- The predictability of schedules is challenging

Market area's share of Raute new orders 2016-2018



## > Operating environment



Market area's share of Raute new orders 2016–2018

### Russia

- Our history's largest individual service contract with Russia's largest plywood manufacturer
- Strengthening of local maintenance resources
- Record number of mill projects at the negotiation phase
- First mill-scale modernization project launched

### Asia-Pacific area

- New LVL line investment for Japan
- Use of small-diameter wood increased
- Demand for basic technology products grew: veneer production is moving closer to forests, from where the veneer is brought to plywood mills for processing

# Growing together with our customers.



## **Sector's growth outlook remains good**

The uncertainty around economic development that marked 2018 continues. The availability of suitable wood raw material is becoming increasingly important and investments are moving closer to raw material resources. Integrated mills drawing on centralized wood sourcing and mill infrastructure are becoming more common.

We believe that the wood products industry is also globalizing. Our customers plan and implement production investments in neighboring countries, even in other market areas, such as from Europe to Russia. At the same time, the markets for new machinery are rapidly becoming international.

New equipment investments were, as a whole, at a higher level than the normal economic situation in 2018. The total value of new equipment investments in the industries we serve is approximately EUR 650 million a year in a normal economic situation. Our market share of all investments in production process machinery in the industry is 15 to 20 percent on average.

In 2018, the capacity utilization rates of our customers' production facilities remained essentially at a good

level. The share of planned and pre-emptive maintenance services will grow as new production capacity goes on stream. Demand for remote services and the supporting systems is also growing.

The development of plywood production is continuing strong on the emerging markets in Asia, South America and Africa. Russia is also showing positive development with the focus remaining on the development of the current production capacity and improving output.

On our traditional markets, the future looks good. In North America, production investments are focused on the modernization of processes and technology and in Europe, the growth in production capacity is focused on special plywood products.

## **New opportunities on the horizon**

Our competitive position will be strong, also going forward, in all of our traditional market areas and especially in new technologies. Our advanced and comprehensive solutions help our customers strengthen their resource efficiency and develop the quality of their products throughout the life cycle of their production processes and their various steps. Our success is based on overall expertise in production processes, our extensive technology offering and our wide selection of services.

Our position as the most reliable supplier of mill-scale projects is strong. We are specialized in the resource-efficient processing of small-diameter plantation wood. We have developed, together with local operators, an upgraded technology offering designed for the emerging markets. We expect it to provide new growth opportunities in the near future.

# Creating value in forest assets

We serve the veneer, plywood and LVL industry on a global scale with an offering of technology and service solutions suited to a variety of customer needs – from high technology using the latest automation to basic smaller-capacity machines and production lines.

**Our mission**

Create value in  
forest assets

**Our value proposition**

Profitable technologies  
and services for all  
customer needs

**Our values**

Customer success  
Trust in people  
Achieving together  
Responsibility

## Always customer-oriented and one step ahead.



**Wood** is a renewable natural raw material, which is growing in popularity worldwide. We are part of the wood processing value chain. Our complete solutions are a combination of advanced technology and services related to using that technology and developing the customer's entire production process and optimizing production.

We wish to serve the veneer, plywood and LVL industry on a global scale with our technology and service solutions suited to a variety of customer needs – from high technology using the latest automation to basic smaller-capacity machines and production lines. Our services can easily be scaled from basic maintenance and spare parts services to overall responsibility for the productivity of production lines.

Digitization constantly creates new opportunities to develop our service offering.

### **Better results in all market situations**

Our machines and equipment are a significant investment for our customers. The wood-based panel products they manufacture are used, for instance, in construction and other projects also of an investment nature. Investment demand reacts quickly to the threats and changes of the overall economic situation. This is why demand for our products and, to some extent, services is cyclical.

Our strategic goal is to enhance our performance in different demand situations in terms of growth and profitability. To achieve our goal, the entire organization is working together to implement the strategy.

### **Customer engagement – Grow with our customers**

We are genuinely interested in our customers' needs and the veneer, plywood and LVL production processes' bottlenecks and investment criteria. Our goal is to become the preferred supplier for a growing number of customers, in more and more market areas. We are genuinely committed to our customers and wish to grow together with them.

### **Always customer-oriented and one step ahead**

Our customers include veneer, plywood and LVL mills, the majority of which are relatively small private family companies. Some of our customers are part of major consolidated forest groups that manufacture not only various wood-based panel products, but also products such as pulp, paper and sawn timber.

Wood-based panel products are also manufactured for various end uses with different quality requirements. On the developed markets, such as Europe and North America, investment demand is typically focused on the latest technology. Meanwhile, on the emerging markets, such as China and Asia, clearly less expensive basic technology with a lower degree of automation is used for manufacturing.





## Raute's financial goals

- Maintain good profitability level throughout the economic cycles
- Grow faster than the markets
- Remain financially sound
- Offer competitive returns to investors

Globally, Raute is known for its production lines created using the most advanced technology solutions. Our SmartMill concept's competitive advantages are optimized grading and digital production control. Our modernization solutions based on the latest technology allow customers to improve their existing production capacity's performance cost-effectively. In our new solutions we focus particularly on digitality and our Mecano and Metroguard products' latest measurement technology for sorting veneer and plywood.

Our goal is to reinforce our position at the forefront of development in our industry and as a technology leader. We also wish to significantly increase our share of the basic technology markets by developing our Lite solutions, which improve the resource-efficiency and quality of wood-based panel products. We see considerable growth potential for our Lite products, especially on the Asian markets.

### Basic services using digitality

It is essential for our customers to improve their productivity and run their production disturbance free. We are growing the share of our basic service business by continuously developing our service offering that covers the entire life cycle of our customer's production process. We will supplement our traditional service offering and strengthen

our position as a digital service pioneer. A remote connection is available for all of the equipment we supply, which allows us to serve customers faster and more cost-effectively than before, both at the commissioning and maintenance phases. This saves time and the need for travel is reduced.

### Build operational excellence together

We develop our operational excellence together with the whole company. We want our customers to achieve the best price-performance ratios on their investments – faster than ever. We standardize our solutions in order to satisfy different customer needs. This helps us shorten the lead times of our deliveries and to improve quality. By focusing on our core competencies, we improve our productivity and ability to adapt to fluctuations in demand. We build and develop our supply chain together with our partners. We lighten our operating methods by focusing on phases that create customer value. We improve our information systems to increase our productivity.

Our goal is to establish a work environment and culture that motivates us to serve our customers in the best way possible and to outdo ourselves over and over again. Our starting point is for all of Raute's personnel to be familiar with the company's strategy and participate in its implementation.

# Effective state-of-the-art solutions for the entire production process

The manufacturing processes for high-quality veneer-based products are at the heart of our core competencies. We offer our customers effective complete solutions for production processes used to make plywood, LVL and their component veneer.



**Our selection** of solutions for different customer needs is the world's largest. *Our project deliveries* can include individual machines, production lines or the production processes of entire mills. We ensure the efficiency of our customers' production processes and that they maintain their competitive advantages throughout the life cycle of the production line.

*Our technology services* include all of the basic services from spare parts to regular maintenance and the modernization of production lines. Our expert services support our customers in both investment decisions and production development. Our digital solutions can be linked to various service packages to produce information on the processes' efficiency and development areas. The information and skills required for safely and effectively operating production lines can also be learned through our online learning system.

The available wood raw material, desired production capacity, dimensions of the wood-based panels being produced and the end-user requirements determine the required production technology. We implement production lines for veneer, plywood and LVL mills using various equipment and line solutions and automation.

In northern areas, the most common tree species are birch and pine. When moving southwards, the poplar

and pine become more common. Nearer the equator, there are already dozens of wood species used in plywood production. We offer solutions for plywood, whatever the tree species.

Traditionally, a typical plywood panel has been 1.25 m × 2.5 m. Our solutions enable the manufacture of, for example, 2.4 m × 4.0 m plywood panels and even bigger sizes. The thicknesses of the panels typically vary between 6 mm and 25 mm, but our solutions make it possible to produce plywood panels of up to 60 mm, for instance for special uses in the transport vehicle industry. New uses constantly set new demands on the panels' dimensions and other characteristics. A large portion of the panels are processed further, for example, by coating them for different uses or grooving and tonguing to make it easier to cover large areas with plywood panels.

The raw material of LVL beams is usually softwood; different spruce and pine species. The end uses often require both high load-bearing capacity and a long span. The sizes of LVL beams vary from partition wall posts of a length of 2.5 m and width of 95 mm to buildings' load-bearing roof beams of 20 m in length and 1 m in width. The strength requirements for roof beams necessitate a carefully controlled manufacturing process in which the veneer raw material is measured and sorted as adaptable for either structural or non-structural beams. Raute is the sole supplier of technology for this purpose.

# Modernization products play a key role in our product development.



## **Uncompromising safety**

To achieve a safe mill environment and operations, safe production machinery and good work ergonomics are required. We offer safety solutions that improve coping at work, occupational safety and productivity for different customer needs. The excellent ergonomics of our machines and state-of-the-art safety automation solutions guarantee smooth and safe working conditions even in surprising situations.

We are active participants in a European working group developing the safety of machinery (Observing Committee (K114) of European Committee for Standardization CEN/TC 114- Safety of Machinery).

## **R&D generates competitive advantage**

We continuously develop new solutions in order to improve the competitiveness of our customers' products. Our active research work is aimed at finding new technologies and solutions that will allow us to maintain our position as a leading turnkey supplier. We also carry out more and more research together with leading companies and universities.

In 2018, we brought to the markets a new innovative grading technology for measuring the characteristics of veneer sheets, which combines our machine vision, ultrasound, density and moisture measurement expertise. Now, sorting veneer sheets is even more precise and versatile.

New measurement technologies have enabled the development of new digital veneer and plywood production monitoring and analysis tools that allow us to guarantee the efficiency of our customers' production processes. We have launched several new digital tools and services on the markets. For example, KPIs for production volumes and grades speed up decision-making to achieve optimized processes and to initiate maintenance measures. We continuously add to our tool selection and our tools' features.

Modernization products also play a key role in our product development. We expect their demand to increase as the focal point of investments shifts towards the improvement of older production facilities' output. Many production lines in use can be updated to correspond more closely with the performance of state-of-the-art production lines using our measurement technology and automation.



# Get more out of your existing mill



Our innovations and expertise allow our customers to elevate the resource efficiency and product quality of their current mills to a level corresponding with new mills. We always carry out complete modernizations of mills together with the customer in accordance with the development plan we created jointly and without interrupting production.

### New face veneer composing line

- 10–30% more face veneer

### Upgrading veneer quality

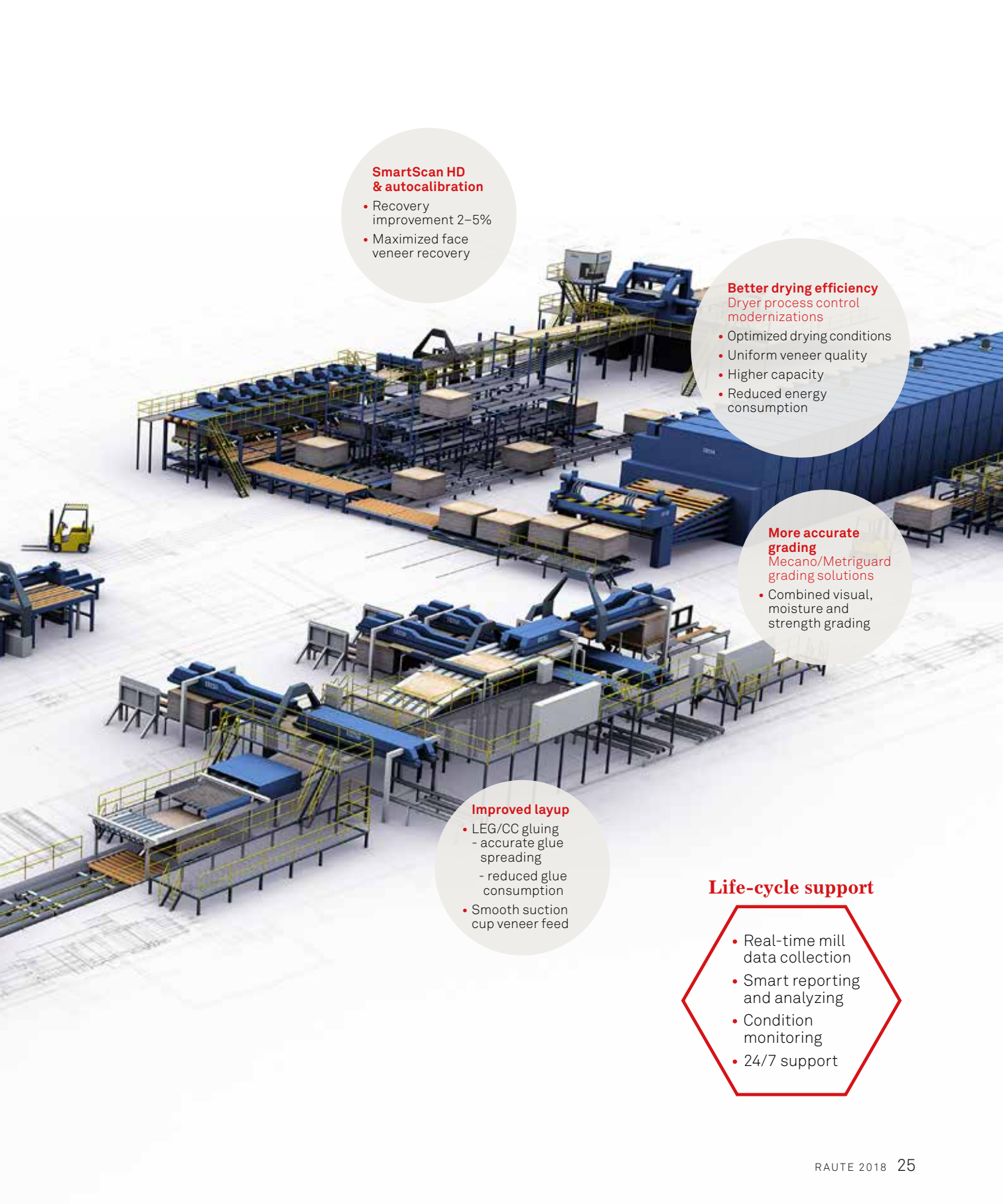
- Composer modernization
- Patching optimization
- Operator training

### New panel repairing line

- High-capacity fully automatic panel repairing
- Smart defect recognition

### Pressing line automatization

- Automatic feeder
- Smart thickness control



**SmartScan HD  
& autocalibration**

- Recovery improvement 2–5%
- Maximized face veneer recovery

**Better drying efficiency**

Dryer process control modernizations

- Optimized drying conditions
- Uniform veneer quality
- Higher capacity
- Reduced energy consumption

**More accurate grading**

Mecano/Metriguard grading solutions

- Combined visual, moisture and strength grading

**Improved layup**

- LEG/CC gluing
  - accurate glue spreading
  - reduced glue consumption
- Smooth suction cup veneer feed

**Life-cycle support**

- Real-time mill data collection
- Smart reporting and analyzing
- Condition monitoring
- 24/7 support



> A good place to work

# Our skilled personnel are our greatest resource

Behind our growth is our skilled personnel with a hunger for success and genuine commitment to targets. We actively invest in the development of their competence and well-being.





**Personnel**  
**772** (Dec. 31, 2018)



**Turnover**  
**18.7%**



**Years of service**  
**9.3**

## Our personnel strategy's

key focal areas are a motivating employee experience, the development of leadership and the organization-wide strengthening of our highly responsible operating culture that strives for first-class quality.

For Raute, 2018 was a busy time. Our personnel grew by 68 people and totaled 772 at the end of the year. We recruited altogether 129 new permanent employees to our Group during the year. Our biggest challenge was to find enough new automation engineers and maintenance service experts. We employed 39 people on a fixed-term basis at the end of 2018.

### **Raute becoming younger and more diverse**

Over the last few years, many young people have joined our growing team. Our average age has fallen by one year over the past five years and is now 42 years. The number of employees under 30 has grown by 16 percent and they make up 20 percent of our entire personnel. The share of women has also increased to 11 percent and they can be found more often in specialist and supervisory positions. Our Nastola head office has become more multicultural and, currently, we have people of eight different nationalities working there.

### **Competence development continues**

By continuously developing our competence, we can ensure that Raute's strategy is implemented successfully now and in the future. Through the RauteACADEMY learning system adopted in 2017, our personnel have had the chance to participate voluntarily in training involving different topics. The focus has been on occupational safety, our Code of Conduct, our strategy and our technology. RauteACADEMY offered a total 24 courses last year and altogether 3,267 courses were completed with passing grades. For the second time, we organized a global leadership training program aimed at, among other things, developing managers as coaches, as givers of feedback and as challengers.

We have continued our close collaboration with technology and commercial schools, as well as universities and polytechnics. The most common forms of collaboration have been internships, theses, projects and corporate visits. In 2018, 38 interns worked at Raute in different production, planning and also customer service and management tasks.

Raute's internal mentoring program was also continued in 2018. Altogether 29 mentoring pairs took part in the mentoring.



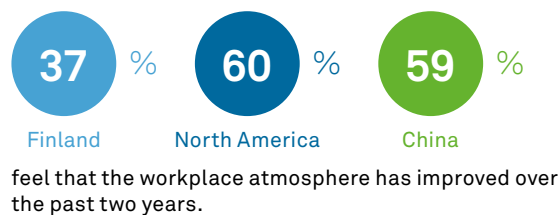
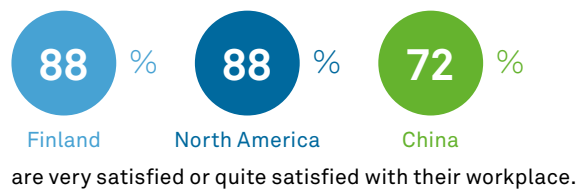
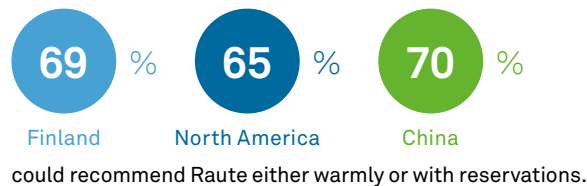
**Over the last few years, many young people have joined our team.**



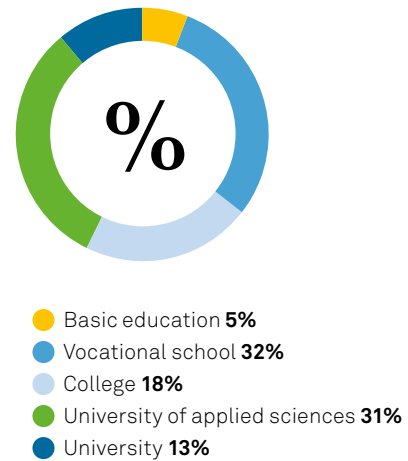
**We want to be a good place to work**

During 2018, we measured the job satisfaction of our employees in our North American, Chinese and Finnish units through a personnel survey.

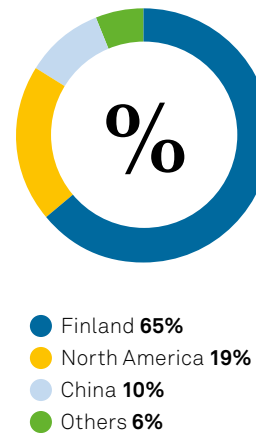
Of the survey participants:



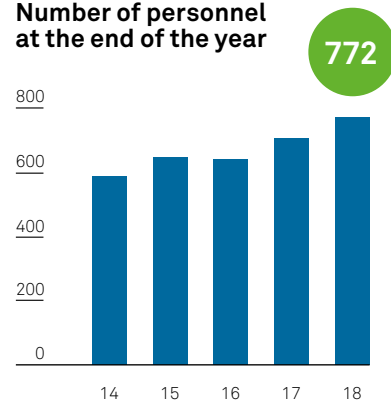
**Education of personnel**



**Personnel geographically**



**Number of personnel at the end of the year**



# 110 years of responsible business

Responsibility and high ethical standards have steered our business throughout our 110-year history. They are a key part of our business and competence, wherever we operate. We want to operate, grow our business and boost our success in an ecologically sustainable manner.

## Our key responsibility topics



**We help our customers succeed**  
Lifetime partnership with customers



**We continuously improve work safety**  
Health and safety



**We highlight the eco-friendliness of wood products**  
Sustainable product and service solutions



**We hunger for success**  
Competence development



**We respect our principles**  
Sustainable supply chain and business ethics



**We continuously reduce our environmental impacts**  
Environmentally efficient production



**We are in this together**  
Stakeholder engagement and local communities

For Raute and Raute's close stakeholders, these responsibility topics are among the most important aspects related to sustainable development.

The economic, social and environmental impacts of Raute's operations were analyzed to define these key aspects, and the aim was to identify issues where Raute can best promote the principles of sustainable development.



## The role of responsible business is growing in a changing world.

**Responsibility** is one of our fundamental values. We actively stay abreast of society's constantly changing views on ethical operations. We develop our operations in areas of corporate responsibility that are material for our business, sustainable development and our stakeholders alike.

We help our customers create added value for their forest assets through our resource-efficient technology and services. Our long-term customer relationships are built on mutual trust and carefully maintained data protection.

We value diversity and operate globally in different cultures with respect for their values and customs. We support and respect the United Nations' Universal Declaration of Human Rights. We recognize the fundamental rights at work as defined by the International Labor Organization ILO, including the freedom of association, the right to collective bargaining, the abolition of forced labor, and equal opportunities and treatment of employees. We have zero tolerance for corruption, bribery and money laundering. We monitor and develop our practices and systems continually in order to avoid the risk of fraud.

We are a major employer and taxpayer in the Lahti region of Päijät-Häme. We collaborate with schools and universities and are involved in the industry's joint development programs.

Our Code of Conduct tells our personnel about Raute's requirements and expectations concerning responsible and ethical operations. We are accountable to our customers for following the Code of Conduct, both with regard to our organization and the entire supply chain.



## Safety first means safe and appropriate working methods.

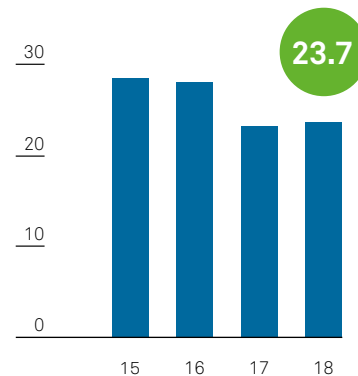
**A safe** work environment and the right working methods both at our units and at our customers' mills are some of our key development areas. We made improving occupational safety our main theme for 2018 and we launched a number of related measures at our units.

A developing occupational safety culture combined with an unusually high work load caused numerous minor accidents, especially at our Nastola main production unit. We are not happy with the occupational safety level and development. Based on safety observations reporting, however, we believe that our occupational safety culture is already improving.

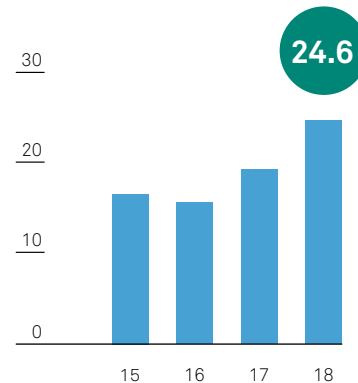
We will continue to actively improve our occupational safety culture through our 'Safety first' theme. Our target is to achieve a 10 on the LTIF scale, i.e. no more than 10 absences resulting from occupational accidents lasting at least one day for every million working hours, by 2020.

\* Lost Time Injury Frequency (LTIF):  
Accidents leading to absences lasting at least 1 day for every million working hours.

Raute LTIF\*



Raute Finland LTIF\*







## Our technology and services have a strong carbon handprint.

**Our carbon handprint** is visible in the wood processing value chain. Our strong carbon handprint results from the better resource-efficiency of our technology solutions compared with competitors.

Over the past 25 years, we have delivered mill-scale veneer, plywood and LVL projects corresponding to an annual capacity of more than 5 million cubic meters. This volume of wood-based panel products stores close to 3 million tons of carbon dioxide captured by tree growth each year.

After the emissions resulting from the production chain, the annual carbon dioxide volume captured in the production of the mills we have delivered corresponds closely with the emissions from 800,000 passenger cars.



Sustainable forestry and long-lasting wood products are key enablers of a low-carbon society. Our advanced technology solutions support this development throughout a production facility's life cycle, enabling the efficient use of raw materials, energy and other production inputs.

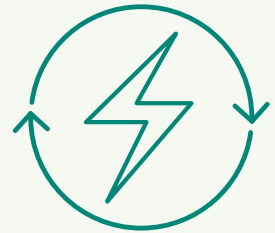


## We are minimizing our environmental impacts.

**The continuous** advancement of technology and rapid progress of digitalization are changing our operating methods and customer service processes. Our goal is to proactively reduce the environmental impacts and risks of our activities in relation to our production operations.

Our environmental impacts in relation to our net sales fell further in 2018. Energy consumption per hour worked fell 5 percent and the consumption of water per person fell 8 percent. Waste in relation to net sales grew 9 percent in Finland. The carbon dioxide emissions of our operations in relation to net sales grew by one percent due to a change in the source distribution of the electricity contract.

Our Nastola unit's operations are certified according to the ISO 9001 (quality) and ISO 14001 (environment) standards. Our environmental management program targets apply to, for instance, improving energy efficiency, reducing the volume of waste and the management of chemical safety. In 2018, the execution rate for measures concerning managing environmental matters was 96 percent.



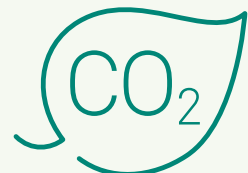
**Energy-efficiency**  
7.2 kWh/working hour, -5%



**Landfill waste (Finland)**  
10.2 tons, -33%



**Water consumption**  
45.7 liters/person/workday, -8%



**CO<sub>2</sub> emissions**  
13.7 tons/MEUR, +1%



## Greatest risks linked to the nature of the project business.

**In its decision-making** and corporate governance, our parent company abides by the Finnish Companies Act, the Securities Markets Act, Nasdaq Helsinki Ltd's rules, other regulations concerning publicly listed companies and the Articles of Association. Raute Corporation's Board of Directors has also issued Administrative Instructions for the Group and approved the Code of Conduct.

Raute Group's parent company is the Finnish public limited liability company Raute Corporation, which was established in 1908. Our Finnish units include our head office and main production unit in Nastola, Lahti and a production and development unit specializing in machine vision technology in Kajaani. Raute Corporation's share of the Group's 2018 net sales was 80 percent.

The Group also includes eight foreign subsidiaries. Our production units are located in the Vancouver area of Canada, the Shanghai area of China and in Pullman, Washington, USA. Additionally, customer and maintenance services are offered by our subsidiaries in St. Petersburg, Russia, Santiago, Chile and Singapore. Our agent network and local service centers are located close to our customers.

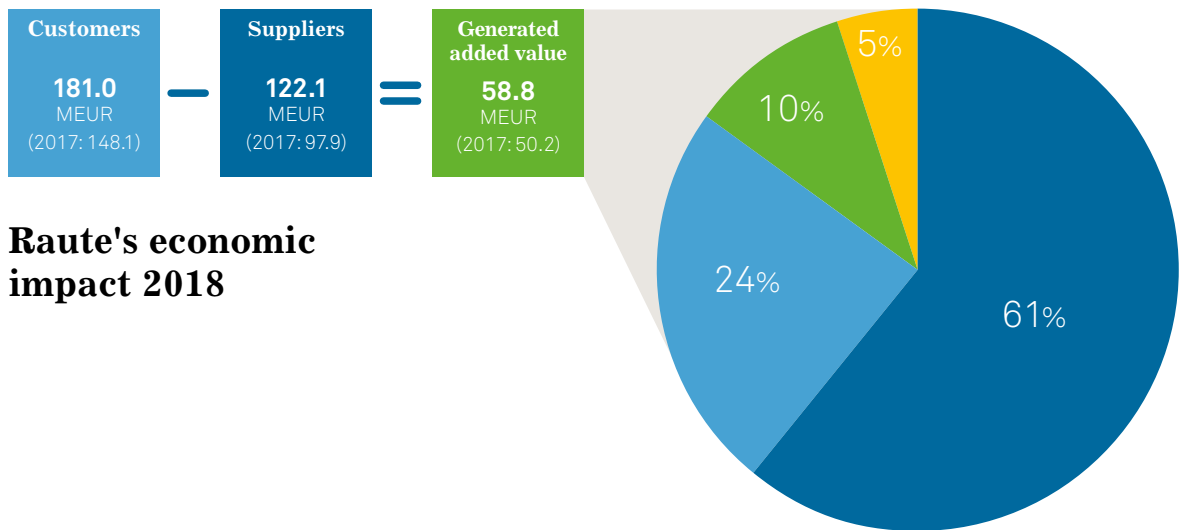
Our Group's greatest identified risks relate to the nature of the project business, market development, information security, financing, and damage or loss. According to our analysis, the Group's most significant business risks are fluctuations in investment demand resulting from economic cycles and commercial risks and technological risks linked to our deliveries.

The foundation for our Group's internal control is management that corresponds with our values and Code of Conduct. There is no separate internal control organization in our Group.

For more information on our Group's corporate governance, responsibility and investor relations, visit the address **[www.raute.com](http://www.raute.com)**

- Raute Corporation's Articles of Association
- Administrative Instructions
- Code of Conduct
- Report of the Board of Directors
- Consolidated financial statements
- Corporate Governance Statement
- Remuneration Statement
- Non-financial Information Statement

## Raute from a responsible investor's perspective.



### Raute's economic impact 2018

We deliver resource-efficient technology for the wood products industry, which uses renewable raw materials. Most of the products manufactured using our machinery have a long life and are recyclable, and the carbon stored in wood products has positive climate impacts. Increasing the use of sustainably produced wood in, for example, construction is among the most important means of achieving global climate targets. Demand for clean technology will grow in the wood products industry with the increasing global focus on climate emissions from raw materials.

#### Stakeholders

- Employees 61%
- Creditors 0%
- Public sector 24%
- Shareholders (proposed dividend) 10%
- Undistributed added value retained 5%

## > Board of Directors



⚡ **Erkki Pehu-Lehtonen**

b. 1950  
M.Sc. (Eng.)  
Chairman of the Board of Directors 2009–  
Member of the Board 2009–  
Chairman of the Board's  
Appointments Committee

^ **Joni Bask**

b. 1975  
M.Sc. (Eng.)  
Member of the Board 2012–  
Principal occupation: Manager,  
Varian Medical Systems Finland Oy 2013–

⚡ **Mika Mustakallio**

b. 1964  
M.Sc. (Econ.), CEFA  
Member of the Board 2004 –  
Vice Chairman of the Board 2012–  
Member of the Board's Appointments Committee  
Principal occupation: President,  
MORS Software Oy 2006–

^ **Pekka Suominen**

b. 1976  
M.Sc. (Econ.)  
Member of the Board 2010–  
Member of the Board's Appointments Committee





⚡ **Patrick von Essen**

b. 1963  
M.Sc. (Eng.)  
Member of the Board 2016–  
Principal occupation: Managing Director,  
Neste Engineering Solutions Oy 2018–

⚡ **Laura Raitio**

b. 1962  
Licentiate in Technology  
Member of the Board 2017–

## Board of Directors

The term of office of our company's Board of Directors begins at the Annual General Meeting and ends at the following Annual General Meeting. The Board of Directors convenes an average of ten times during the term of office. It oversees the duties of the Audit committee. The Board's tasks and charter are described in our company's Administrative Instructions and Corporate Governance Statement, which can be found on our company's website, [www.raute.com](http://www.raute.com).

### Election of Board members

The Annual General Meeting appoints the Chairman, the Vice-Chairman and the members of the Board of Directors. The Appointments Committee prepares and presents to the Annual General Meeting a proposal on the number of Board members and the Board's composition. It strives to achieve a diverse Board composition that supports the achievement of our strategic targets and development of our business in the best possible way.

The Board of Directors' diversity is examined through the members' age and gender distribution, educational and professional backgrounds, experience that is significant in terms of the position and personal characteristics.

The purpose of the principles concerning diversity is to contribute to ensuring that the competence and experience of the Board, as well as the diversity of its composition are sufficient to meet the needs of our company's business model and ownership structure. In terms of the gender distribution, our goal is for at least one member of each gender to be represented on the Board. The Board of Directors assesses the achievement of diversity in its self-evaluation.

### Auditor

The authorized public accounting company PricewaterhouseCoopers, Authorized Public Accountant Markku Launis as the principal auditor.

PricewaterhouseCoopers has been Raute Corporation's auditor since the 2010/2011 term of office.

## > Group Executive Board



^ **Petri Strengell**

b. 1962  
M.Sc. (Eng.)  
Group Vice President, Supply Chain, October 1, 2013–  
With the company since 1987

▸ **Arja Hakala**

b. 1957  
M.Sc. (Econ.), MBA  
Group Vice President, Strategy, March 27, 2018–  
Deputy to President and CEO, October 16, 2004–  
Group Vice President, Finance, CFO,  
until March 26, 2018  
With the company since 1990

^ **Timo Kangas**

b. 1965  
Engineer, EMBA  
Group Vice President, EMEA, October 1, 2013–  
With the company since 2004

▸ **Mika Hyysti**

b. 1965  
B.Sc. (Eng.)  
Group Vice President, Technology, October 1, 2013–  
With the company since 1990



^ **Marko Hjelt**

b. 1969  
M.Ed.  
Group Vice President, Human Resources, October 1, 2013–  
With the company since 2013

▸ **Olli-Pekka Vanhanen**

b. 1964  
M.Sc. (Econ.)  
Group Vice President, Finance, CFO,  
March 27, 2018–January 31, 2019

▸ **Tapani Kiiski**

b. 1962  
Licentiate in Technology, M.Sc. (Eng.)  
President and CEO, March 16, 2004–  
With the company since 2002

## President and CEO

The President and CEO is responsible for the management of our company's business according to the Finnish Companies Act and the decisions and instructions of our Board of Directors. He reports to the Board of Directors on our business environment, such as on the development of customer accounts and the competitive and market situation. The President and CEO's tasks also include keeping the Board of Directors up to date on our company's financial position and other significant business-related issues.

The President and CEO serves as the Chairman of our Group's Executive Board, represents the Group at the shareholders' meetings of subsidiaries and associates, and acts as Chairman of the subsidiaries' Boards of Directors, unless the Board has decided otherwise in individual cases. The Board evaluates the President and CEO's work annually.

## Group's Executive Board

Our Executive Board consists of the President and CEO and a variable number of members appointed by Raute Corporation's Board of Directors. The Executive Board prepares the Group's business strategy, oversee its implementation and addresses all major operational issues together. The President and CEO confirms the Executive Group's decisions.

Antti Laulainen, M.Sc. (Eng.), served as Group Vice President, Technology Services and Sales Management and as a member of the Executive Board until November 12, 2018.

Tarja Järvinen, M.Sc. (Econ.) has been appointed as Raute Corporation's CFO and as a member of the Group's Executive Group as of February 1, 2019.

Strong development continued for the fourth year.

Good market situation.

Order intake at a good level.

New record in net sales, growth 22 percent.

Best ever operating profit.

Development projects in terms of both products and operations enabled growth and improvement in profitability.

2019 starting with a strong order book, market uncertainly increasing.



2018

**Financial  
review**

61428

2692

769

682

821

2940413

6928

2495



## Financial development

EUR 1,000	2014	2015	2016	2017	2018
Net sales	94,021	127,278	113,130	148,064	<b>180,993</b>
Change in net sales, %	12.9	35.4	-11.1	30.9	<b>22.2</b>
Exported portion of net sales	88,696	97,113	88,612	122,249	<b>153,180</b>
% of net sales	94.3	76.3	78.3	82.6	<b>84.6</b>
Operating profit	2,605	8,120	8,558	11,171	<b>14,922</b>
% of net sales	2.8	6.4	7.6	7.5	<b>8.2</b>
Profit before tax	2,810	8,118	8,220	11,120	<b>14,912</b>
% of net sales	3.0	6.4	7.3	7.5	<b>8.2</b>
Profit for the financial year	2,361	6,684	6,684	8,979	<b>11,836</b>
% of net sales	2.5	5.3	5.9	6.1	<b>6.5</b>
Return on investment (ROI), %	10.9	28.5	25.3	29.5	<b>34.6</b>
Return on equity (ROE), %	9.8	24.7	20.9	24.4	<b>27.6</b>
Balance sheet total	52,646	61,760	69,767	87,006	<b>96,382</b>
Interest-bearing net liabilities	-1,669	-5,003	-20,633	-29,311	<b>-12,295</b>
% of net sales	-1.8	-3.9	-18.2	-19.8	<b>-6.8</b>
Non-interest-bearing liabilities	22,795	28,421	31,760	45,428	<b>48,793</b>
Equity ratio, %	55.8	58.5	60.4	64.3	<b>61.7</b>
Gearing, %	-6.9	-16.8	-60.3	-74.4	<b>-26.4</b>
Gross capital expenditure	1,675	2,506	3,224	6,962	<b>4,384</b>
% of net sales	1.8	2.0	2.8	4.7	<b>2.4</b>
Research and development costs	1,767	3,092	2,863	3,237	<b>3,735</b>
% of net sales	1.9	2.4	2.5	2.2	<b>2.1</b>
Order book, EUR million	44	60	106	110	<b>95</b>
Order intake, EUR million	112	145	162	155	<b>167</b>
Personnel at Dec. 31	587	646	643	704	<b>772</b>
Personnel, effective, on average	530	614	631	660	<b>725</b>
Personnel, average	545	624	642	682	<b>748</b>
Dividend	1,606	3,303	4,220	5,320	<b>5,968 *</b>
Repayment of equity	803	-	-	-	<b>- *</b>

\* The Board of Directors' proposal to the Annual General Meeting.

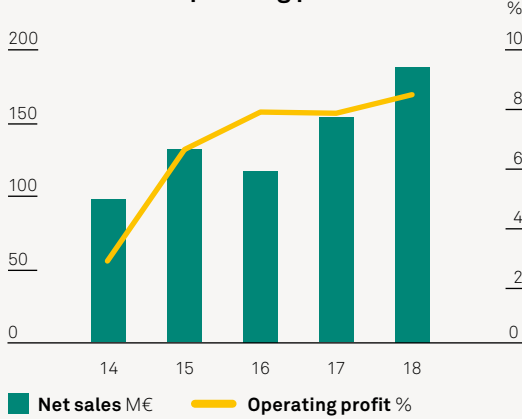
## Share-related key figures

	2014	2015	2016	2017	2018
Earnings per share (EPS), undiluted, EUR	0.59	1.65	1.60	2.13	<b>2.78</b>
Earnings per share (EPS), diluted, EUR	0.59	1.64	1.59	2.11	<b>2.76</b>
Equity to share, EUR	6.06	7.26	8.13	9.27	<b>10.82</b>
Dividend per series A share, EUR	0.40	0.80	1.00	1.25	<b>1.40 *</b>
Dividend per series K share, EUR	0.40	0.80	1.00	1.25	<b>1.40 *</b>
Dividend per profit, %	68.0	48.4	62.3	58.8	<b>50.4 *</b>
Effective dividend return, %	5.5	5.7	6.0	4.3	<b>6.6 *</b>
Price/earnings ratio (P/E ratio)	12.42	8.55	10.41	13.65	<b>7.67</b>
Repayment of equity from invested non-restricted equity reserve, EUR	0.20	–	–	–	<b>– *</b>
<b>Development in share price (series A shares)</b>					
Lowest share price for the financial year, EUR	6.90	7.17	12.06	16.84	<b>20.50</b>
Highest share price for the financial year, EUR	8.60	14.25	17.98	30.52	<b>34.90</b>
Average share price for the financial year, EUR	7.69	11.95	14.50	22.70	<b>28.58</b>
Share price at the end of the financial year, EUR	7.30	14.12	16.70	29.00	<b>21.30</b>
Market value of capital stock at Dec. 31, EUR 1,000**	29,311	58,057	70,248	123,228	<b>90,806</b>
<b>Trading in the company's shares (series A shares)</b>					
Shares traded during the financial year, 1,000 shares	594	1,095	988	846	<b>880</b>
% of the number of series A shares	20.0	35.1	30.7	26.0	<b>26.9</b>
<b>Total number of shares (undiluted)</b>					
Issue-adjusted weighted average number of shares	4,009,777	4,051,034	4,166,966	4,225,082	<b>4,259,525</b>
Issue-adjusted number of shares at the end of the financial year	4,015,228	4,111,708	4,206,462	4,249,248	<b>4,290,433</b>
The deferred tax liabilities have been included in the calculation of the key figures.					
* Board of Directors' proposal to the Annual General Meeting.					
** Series K shares valued at the value of series A shares.					

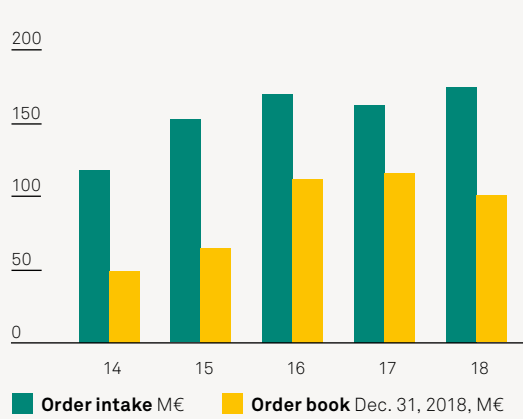
## Raute share series

	Series A share RAUTE	Series K share RAUTEK	Total
Number of shares at Dec. 31, 2018	3,272,033	991,161	4,263,194
Votes/share	1	20	
Total votes	3,272,033	19,823,220	23,095,253
Share quotations can be followed online at <a href="http://www.raute.com">www.raute.com</a>			

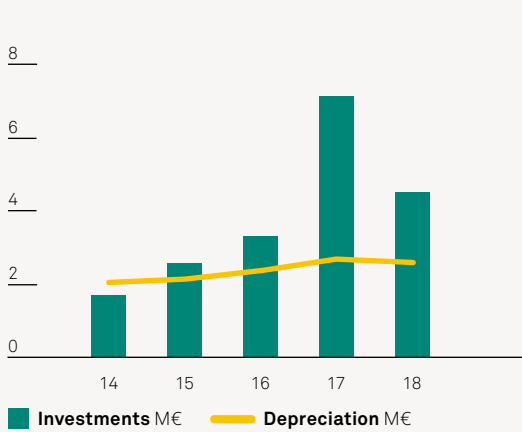
### Net sales and operating profit



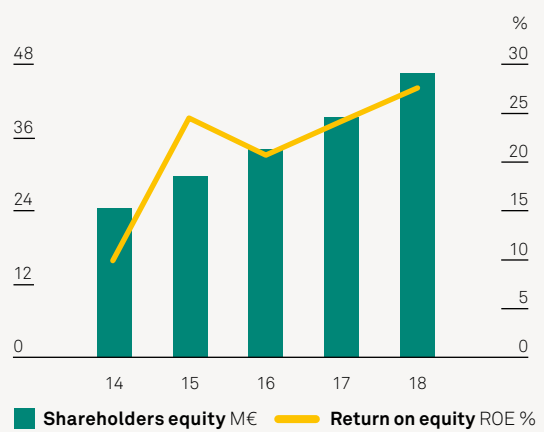
### Order intake and order book



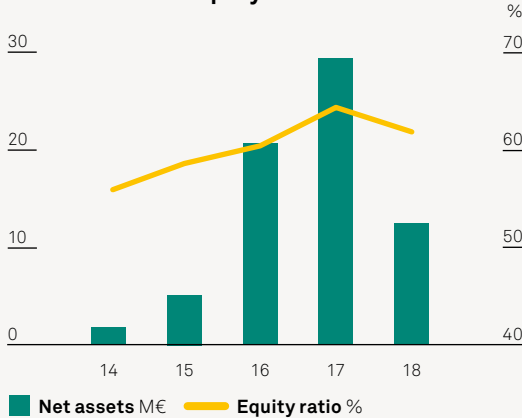
### Investments and depreciation



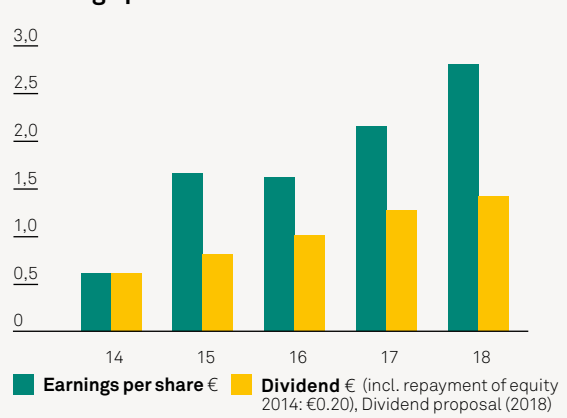
### Shareholders equity and return on equity ROE



### Net assets and equity ratio



### Earnings per share and dividend



**Raute Corporation**  
**Head Office and main production plant**



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Raute Oyj



Raute Corporation



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[www.youtube.com/RauteMachinery](http://www.youtube.com/RauteMachinery)



Annual Report 2018

**Content:** Raute Corporation

**Text:** Raute Corporation and Susanna Makaroff

**Translation:** Traduct Oy

**Photos:** Raute Corporation, Jakke Nikkarinen/  
Studio Skaala Oy and Tomi Parkkonen

**Printing house:** Markprint

**Paper:** G-Print

Creating  
value in  
forest assets.

