

Initiating coverage with HOLD

In the last 3 years, Raute's strong performance has been largely driven by European investment activity. We estimate that the activity normalizes in 2019, which reflects negatively on Raute's net sales and EBIT-% in 2019-2020. Meanwhile, we estimate that the share of technology services grows and drives Raute's long-term growth and profitability. We initiate coverage of Raute with a HOLD rating and a target price of EUR 27.0 per share. The rating and target price are based on Raute's historical valuation and our DCF model.

Recent growth driven by project deliveries to Europe

In 2017, 67% of Raute's net sales was project sales which are highly cyclical and drive Raute's EBIT-% together with fixed costs. During the last 3 years, Raute's sales and EBIT have hit new records, largely driven by European investment activity. We estimate that order intake from Europe normalizes in 2019 since growth in the European construction output is estimated to decelerate in 2018. As a result, we estimate y/y declining net sales and EBIT-% in 2019 and 2020.

We estimate that tech services drive long-term growth

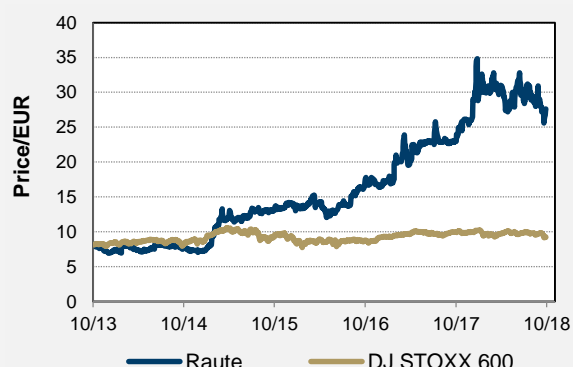
In 2021-2023, we estimate that Raute's net sales grow at a CAGR of 3.6%, driven by growth in technology services (5.0% CAGR). Raute has not disclosed the profitability of technology services but, based on peer data, we estimate that the increasing share of services supports Raute's long term EBIT-%. In contrast, we estimate that project sales grow at a CAGR of 2.5%, limited by slow GDP growth in developed economies and challenging competitive environment in emerging economies.

HOLD with a target price of EUR 27.0 per share

In our valuation approach, we emphasize 2020 estimates since we see that they represent Raute's performance at a neutral stage of the investment cycle. On our estimates, Raute's 2020E EV/EBIT amounts to 9.7x. This is clearly above the 2012-2017 median trailing 12m EV/EBIT of 7.0x and limits valuation upside, even though the growing share of technology services reduces volatility and risks. Meanwhile, our DCF model implies EUR 28.0 per share, assuming a 6.5% terminal EBIT margin.

Rating

■ HOLD



Share price, EUR (Last trading day's closing price) 27.60

Target price, EUR 27.0

Latest change in recommendation 22-Oct-18

Latest report on company 22-Oct-18

Research paid by issuer: YES

No. of shares outstanding, '000's 4,249

No. of shares fully diluted, '000's 4,249

Market cap, EURm 117

Free float, % -

Exchange rate -

Reuters code RAUTE.HE

Bloomberg code RAUTE:FH

Average daily volume, EURm 0.06

Next interim report 31-Oct-18

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■ BUY ■ HOLD ■ SELL

KEY FIGURES

	Sales EURm	EBIT EURm	EBIT %	Ptx profit EURm	EPS EUR	P/E (x)	EV/Sales (x)	P/CF (x)	EV/EBIT (x)	DPS EUR
2016	113	9	7.6%	9	1.68	10.0	0.4	3.3	5.8	1.00
2017	149	12	7.8%	12	2.22	13.1	0.6	6.7	8.1	1.25
2018E	162	13	7.8%	13	2.29	12.1	0.5	9.5	6.6	1.35
2019E	136	10	7.3%	10	1.87	14.7	0.6	11.3	8.1	1.35
2020E	122	8	6.8%	8	1.56	17.7	0.7	12.9	9.7	1.30
Market cap, EURm			117	BV per share 2018E, EUR		10.3	CAGR EPS 2017-20, %			-11.1
Net debt 2018E, EURm			-34	Price/book 2018E		2.7	CAGR sales 2017-20, %			-6.4
Enterprise value, EURm			84	Dividend yield 2018E, %		4.9	ROE 2018E, %			23.4
Total assets 2018E, EURm			94	Tax rate 2018E, %		23.0	ROCE 2018E, %			29.9
Goodwill 2018E, EURm			1	Equity ratio 2018E, %		46.6	PEG, P/E 18/CAGR			-1.2

All the important disclosures can be found on the last pages of this report.

Contents

1.	Raute	5
1.1.	History.....	5
1.2.	Main business areas.....	5
1.3.	SWOT analysis	7
1.4.	Clients	7
1.5.	Geographical presence.....	8
1.6.	Manufacturing.....	8
1.7.	Research and development	8
1.8.	Strategy.....	9
1.9.	Long-term vision	9
2.	Market	9
2.1.	Market trends.....	9
2.2.	Plywood market	10
2.3.	LVL market	11
2.4.	Raute's order intake by geography	13
2.5.	Raute's target market.....	15
2.6.	Competitive landscape.....	17
2.7.	Acquisitions.....	19
3.	Financials	19
3.1.	Overview of recent performance	19
3.2.	Net sales and operating profit	20
3.3.	Outlook for 2018	23
3.4.	Gross margin.....	23
3.5.	Order intake.....	23
3.6.	Order book	25
3.7.	R&D expenditures.....	26
3.8.	Cash flow	27
3.9.	Taxation.....	27
3.10.	Capex and depreciations.....	27
3.11.	Dividends.....	28
3.12.	Ownership	28
3.13.	Balance sheet	28
4.	Estimates	31
4.1.	Net sales.....	32
4.2.	Profitability.....	35
4.3.	Dividends	35
5.	Valuation	36

5.1.	DCF model.....	36
5.2.	Multiple based valuation	36
6.	References	39

Investment summary

Equipment and services for the entire production process of veneer, plywood and LVL.

Raute is a globally operating company that offers project deliveries (production lines and machinery) and technology services (maintenance, spare parts, consulting and modernizations) for the entire production process of veneer, plywood and LVL (laminated veneer lumber). Raute is also a technological leader and the only company capable of supplying entire plywood production lines. The company's credibility is supported by its healthy financial position, long customer relationships and public listing.

Volatile project sales (67%) and fixed costs drive EBIT-%.

In 2017, 67% of Raute's net sales consisted of project sales which are highly cyclical and drive Raute's EBIT-% together with fixed costs. During the last 3 years, Raute's order book, net sales and operating profit have hit new records, driven largely by an investment boom in Europe. In 2017, Europe accounted for 55% of Raute's net sales.

Raute has a 15-20% share in the 600 MEUR equipment market. Raute is the market leader in Europe and Russia.

Plywood consumption volumes have grown at a CAGR of 3.6% in 2000-2017. Some 60-70% is used for housing. The demand for veneer-based products is supported by climate change, urbanization and rising standard of living. Raute estimates that the market for new plywood equipment amounts to 600 MEUR per year under normal economic conditions while Raute's share is 15-20%, being a clear market leader in Europe and Russia. Growth in the services market is supported by digitalization and IoT. We estimate that the service market amounts to 500-800 MEUR while Raute has a 6-10% share.

Target: faster growth than the market. Developed markets: Focus on aftermarket services. Emerging markets: Growing market for new equipment.

Raute aims to grow faster than its target market while maintaining sound financial position and offering competitive returns for investors. In the long term, we estimate that Raute's target market grows in line with GDP, implying 1.7% CAGR for developed and 4.8% CAGR for emerging economies in 2019-2023, according to the IMF. Despite the recent investment boom in Europe, the Western markets are mature and Raute will focus on modernizations and other aftermarket services. Meanwhile, the demand for new equipment is shifting to emerging markets. So far, Raute has achieved little success in the price sensitive China which represents 59% of the global plywood production.

In 2019-2020, we estimate that a normalization in European project orders reflects negatively of Raute's growth and profitability.

For 2018, we estimate 162 MEUR net sales (+9.0% y/y) and 12.7 MEUR EBIT (+9.5% y/y), which is in line with Raute's guidance: Raute expects that net sales will increase, and operating profit will improve in 2018 y/y. In 2019, we estimate that Raute's project order intake normalizes close to the 2013-2015 median level since the European construction output growth is estimated to decelerate in 2018. We estimate that Raute's net sales amount to EUR 136m in 2019 and 122m in 2020. We estimate 10.0 MEUR EBIT in 2019 and 8.3 MEUR in 2020.

In 2021-2023, technology services drive growth and profitability. Meanwhile, project sales grow slowly while emerging markets remain a challenge.

In 2021-2023, we estimate that Raute's net sales grow at a CAGR of 3.6%, driven by technology services (5.0% CAGR). We see that Raute still has room to grow within its installed base, particularly in maintenance services which also drive spare part sales. In addition, Raute can strengthen its installed base in mature markets by modernizing competitors' equipment. Raute has not disclosed the profitability of technology services but, based on peer data, we estimate that the growing share of services supports Raute's EBIT-%. In contrast, we estimate that project sales grow at a CAGR of 2.5%, limited by slow GDP growth in developed economies. Rising quality standards may eventually improve Raute's competitive position in China but our estimates don't yet reflect that.

HOLD with a target price of EUR 27 per share, based on our DCF model and historical valuation.

We initiate coverage with HOLD rating and a target price of EUR 27 per share. The rating and target price are based on Raute's historical valuation and our DCF model. We emphasize 2020 estimates since we consider them to represent a neutral stage of the cycle. On our estimates, Raute's EV/EBIT for 2020E is 9.7x which is well above the 2012-2017 median trailing 12m EV/EBIT of 7.0x. This limits potential valuation upside even though the increasing share of technology service sales reduces volatility and risks. Meanwhile, our DCF model implies a value of EUR 28.0 per share, assuming a 6.5% terminal EBIT margin. We put less emphasis on peer multiples due to the different stage of investment cycle in Raute's target market relative to its peers'.

1. Raute

1.1. History

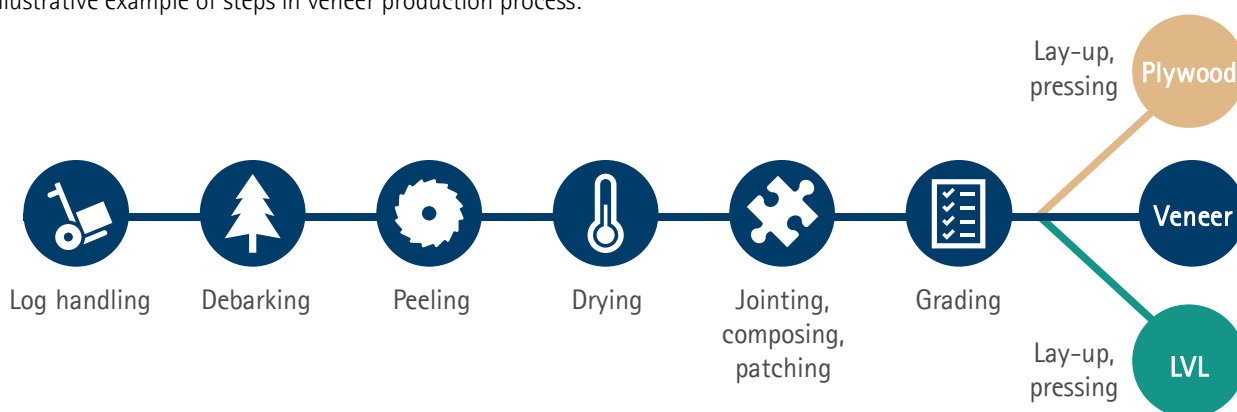
Raute started its operations as Lahden Rauta ja Metalliteollisuustehdas Oy in 1908. The company began with building inland waterway vessels and manufacturing steam boilers and machines. In the 1930s, Raute expanded to the production of plywood machines. Today the company operates factories on three continents and employs 778 people, some 530 in Finland. Shares of the company were listed on the Helsinki primary stock exchange in 1994. This year Raute turns 110 years.

1.2. Main business areas

Raute offers equipment and services for the whole production process of veneer and veneer-based products. Veneer refers to thin sheets of wood sliced or rotary cut from a log. Veneer is not sold to the end user market in significant volumes. Instead, the material is mostly used as an intermediate good in manufacturing veneer-based products:

- **Plywood** is a category of panels where sheets of veneer are stacked together at alternating angles (cross-graining) using adhesives and hot pressed to form a solid panel. Applications of plywood are used in e.g. trailer flooring, buses, marine construction and forming work.
- **LVL** has veneer stacked with the grain parallel to the length of the board, as opposed to plywood. It is often used in load-bearing structures as it is considered stronger than steel and lighter than concrete.

Illustrative example of steps in veneer production process:



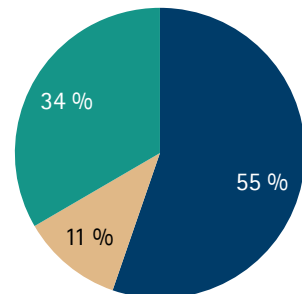
Raute has two business areas: Project deliveries and technology services. Project deliveries account for the majority of Raute's orders and they form the backbone of the business. The investment-driven nature of the project deliveries cause significant volatility in Raute's sales.

By comparison, the service business provides a long-term revenue stream smoothing the investment cycles. However, the service business is also subject to some cyclicity. For example, spare part sales depend on capacity utilization.

There are clear synergies between the two business areas. As the installed base increases, service sales should grow as a result. In addition, new project delivery orders can sprout

from service relationships. Also, maintenance and services provide the company information about customer needs.

Sales split, 2017



- Project deliveries - Plywood
- Project deliveries - LVL
- Technology services

Source: Raute, Evli Research

- **Project deliveries**

Project deliveries comprise entire mill processes and associated machinery, production lines or individual machines. Raute plans, manufactures and supplies the equipment, although part of the manufacturing is outsourced. The projects include new capacity generation, expansion of mills and replacements.

The size of project deliveries varies greatly. The smallest machines cost a few hundred thousand euros. In contrast, complete production lines are worth tens of millions of euros.

- **Technology services**

Raute's technology services cover the whole life cycle of machinery: spare parts, maintenance, modernizations as well as consultation for investment solutions and production planning. In practice, a large share of the segment's revenue consists of equipment and components.

Most of Raute's technology services are offered to customers with Raute's machinery in place. However, modernizations are offered also for competitors' machinery. Modernizing competitors' equipment allows Raute to grow its installed base, which supports growth in maintenance services and spare part sales.

Modernization services account for the largest share of service revenue. If a modernization project leads to the sale of an entirely new machine, the revenue is recorded under project deliveries. The second largest part of service revenue is spare part sales. We estimate that spare parts also represent the most profitable part of technology services.

Maintenance accounts for the smallest part of service revenue. Maintenance contracts are sold almost solely for Raute's own equipment. In practice, Raute's maintenance contracts consist of a few specialist visits per year. Meanwhile, Raute's clients take care of the day to day maintenance of machinery.

Service revenue also includes consultation for investment decisions and production planning. However, these services generate relatively little revenue and sometimes Raute's clients use outside engineering and consulting companies for these tasks.

1.3. SWOT analysis

<p>Strengths</p> <ul style="list-style-type: none"> • Technological leader • Strong market position in Europe and Russia • Healthy balance sheet • Able to supply entire plywood and LVL production lines • Limited customer risk 	<p>Weaknesses</p> <ul style="list-style-type: none"> • Cyclicity of the target market • Somewhat low share of service sales • Low market share in Asian emerging markets • No competitive products for the price sensitive Chinese markets
<p>Opportunities</p> <ul style="list-style-type: none"> • Megatrends support the demand for plywood and LVL (climate change, urbanization, rising standard of living) • Untapped potential in emerging markets • Chinese quality requirements could increase and meet Raute's price point • Growth potential in maintenance services • Digitalization supports service market growth 	<p>Threats</p> <ul style="list-style-type: none"> • Chinese equipment could challenge Raute in other emerging markets • OSB could challenge plywood in new markets also outside North America • Setbacks in large scale projects • Unsuccessful R&D projects

1.4. Clients

Raute estimates that there are some 500 plywood mills outside of China and India. Raute has delivered production lines, complete mills, modernizations and maintenance services to around 300 of these.

Raute's clients are mostly small family companies with annual revenues below 150m EUR, which limits Raute's customer risk. In addition, Raute's clients include plywood divisions from large forestry groups which typically operate six mills each. There is less than a dozen of these large groups globally. Raute's clients include the five largest plywood producers in Europe such as UPM Kymmene, Metsä Group and Latvijas Finieris. Other large clients include York Timbers, Steico, Boise, Arauco and Segezha.

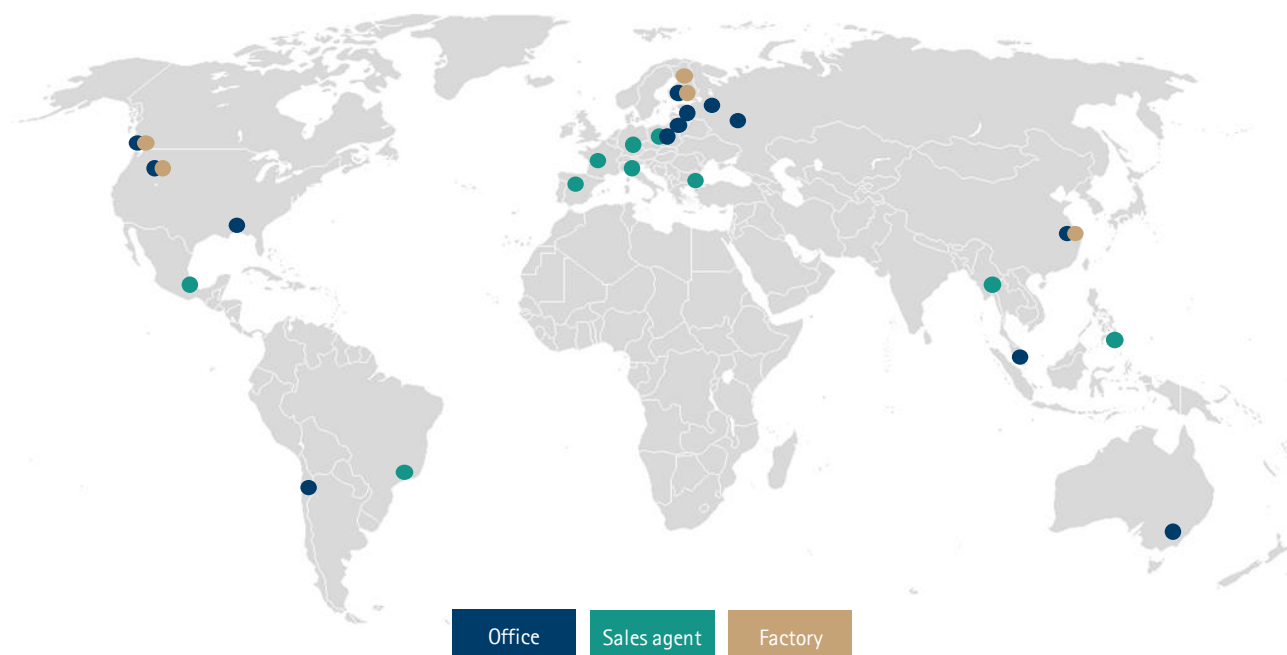
While the large forestry groups operate globally, their plywood production is typically regional. The production location is often dictated by the availability of raw materials.

Raute's clients don't directly report their capacity utilization rates. However, Raute receives valuable information from spare part sales, which increase when capacity utilization is high.

1.5. Geographical presence

Raute has its head office and main production plant in Nastola, Lahti. Other production plants are located in Kajaani, Vancouver, Shanghai and Pullman, Washington. In addition, the company has a global sales network and an increasing local presence in technology services.

Raute – Geographical presence



Source: Raute, Evli Research

1.6. Manufacturing

Raute's factories in Finland, Canada, United States and China have very little overlap. In Finland, Raute builds its key products such as machines relating to veneer peeling and pressing. In the USA and Canada, Raute primarily builds modernization related equipment which fit the local standards. In China, some 80% of value is generated by building components for Raute's internal use. In addition, the Chinese plant builds drying machines and some products exclusively for the emerging market, although they are engineered under Finnish specialists' supervision.

Raute has increasingly outsourced its production to reduce the cyclicity of its business. Currently, Raute outsources a remarkable share of production work hours.

Raute sees that the most significant production bottlenecks are related to the personnel overseeing installation and commissioning. While this process can be outsourced, the availability of labor is still an issue.

1.7. Research and development

Raute considers itself as the technological leader in the plywood and LVL industry. Raute's R&D efforts focus on reducing raw material waste relating to chemicals and wood. In addition, Raute's R&D projects aim for better energy-efficiency, lower labor costs and higher output quality. The company has 26 patents, but their role is not decisive.

1.8. Strategy

Overall, Raute aims to enhance profitability, adjust better to economic cycle variations and achieve controlled growth. Due to the cyclicity, Raute does not report specific financial targets, but states that it aims to grow faster than the market, keep a healthy financial position and generate good returns to investors.

Raute is addressing a polarized market in the West and emerging economies, which calls for two separate strategies:

The Western markets are mature. Plywood and LVL producers focus on efficiency while investments in new equipment are low. As a result, Raute focuses on technological advancements and serving its clients throughout the life cycle of their investments. Raute sees the largest growth potential in maintenance services but a competitive offering requires sufficient installed base. Raute can grow the installed base by modernizing competitors' equipment.

The emerging markets: The share of Asia (especially China), Russia and South America of the global market new equipment market is increasing. As a result, Raute aims to increase its presence in the emerging market. However, Raute must adapt its offering to meet the low-price point of the market. Particularly in China, labor costs are low while raw material costs are high. This calls for reduced automation in Raute's equipment.

1.9. Long-term vision

In the next few years, Raute sees that digitalization could accelerate service revenue growth significantly through lower travelling costs. Meanwhile, Raute sees that project deliveries will likely grow at a slower rate relative to services. Raute sees that the current investment boom in Europe will eventually tail off while the company's business in the Americas will likely stay relatively stable. Raute sees that the company must achieve a foothold in the Chinese market and accelerate growth in other Asian emerging markets, if the company aims to grow project deliveries.

2. Market

2.1. Market trends

Raute's business is supported by several megatrends, which create more demand for existing and new products.

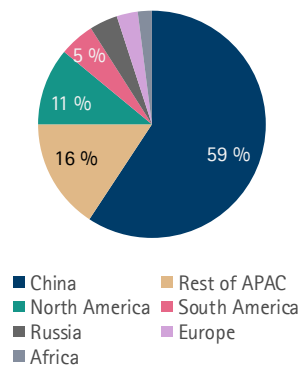
- Several megatrends support the demand for plywood and LVL in general. Climate change increases the demand for renewable materials, urbanization increases construction volumes in growth centers, and rising standards of living increase consumption on housing.
- Increasing demand for energy and raw material efficiency support the demand for Raute's advanced and efficient equipment.
- Demand for plywood is shifting to emerging markets, which is both a threat and an opportunity for Raute, depending on the company's ability to adapt its offering and capture market share.
- Use of plantation wood as raw material is rising, which may support Raute's competitive position. Raute has optimized its veneer peeling equipment for the processing of small diameter plantation trees. According to Raute, a significant

amount of plantation trees in South America and South East Asia are approaching maturity.

- Automation and digitalization increase the demand for expert services, which is an opportunity for Raute.

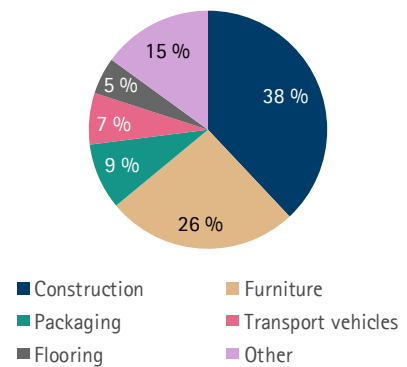
2.2. Plywood market

Plywood production by market area, 2017



Source: Indufor via Raute, Evli Research

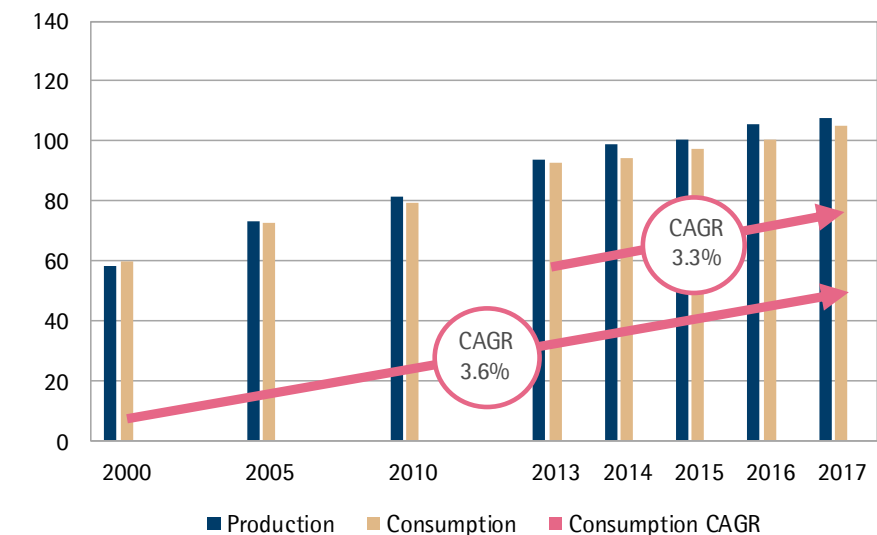
Plywood consumption by end-use, 2016



Source: Raute, Evli Research

Three quarters of global plywood production occurs in Asia, most of it in China. Construction and furniture account for 64% of the plywood demand with 38% and 26% shares, respectively. Packaging and transport vehicles are the next largest segments. The demand in these segments is closely tied to global economic cycle.

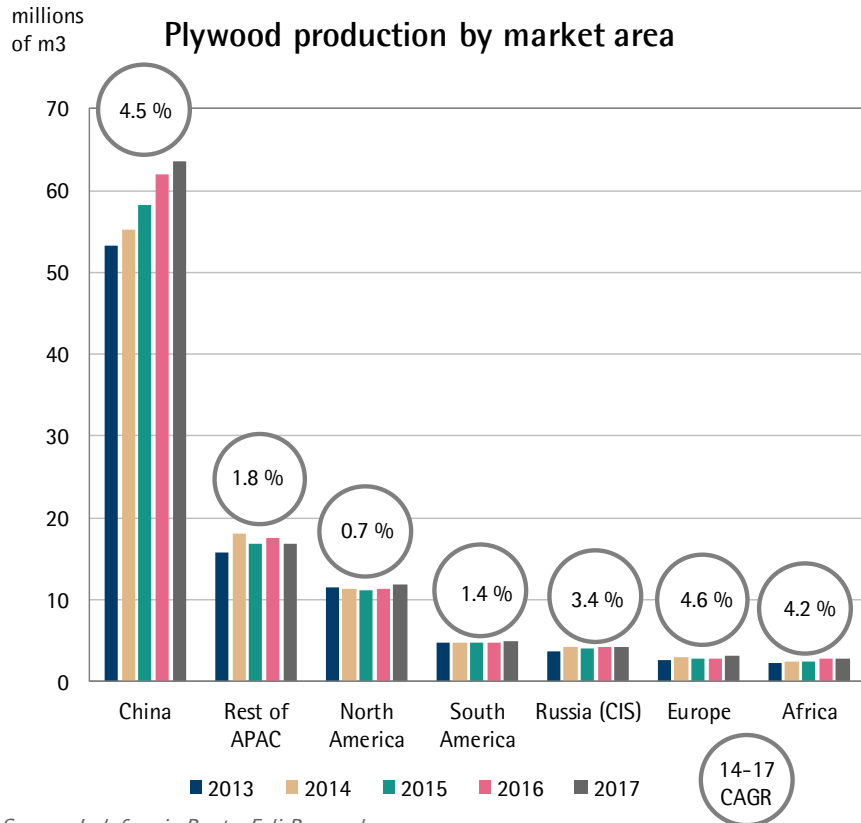
Global plywood production and consumption



Source: Indufor via Raute, Evli Research

The global plywood demand has grown at a CAGR of 3.6% in 2000-2017, reaching a volume of 105.2 million cubic meters in 2017. The plywood manufacturing market amounted to USD 88.3 billion in 2017 and is forecasted to continue growing at a CAGR of 7.8% 2017-2023 (BCC Research, 2018) driven by global economic tailwind and wood

construction and furnishing trends. The use of renewable construction materials and rising awareness of carbon dioxide emissions have promoted the adaptation of wood products.



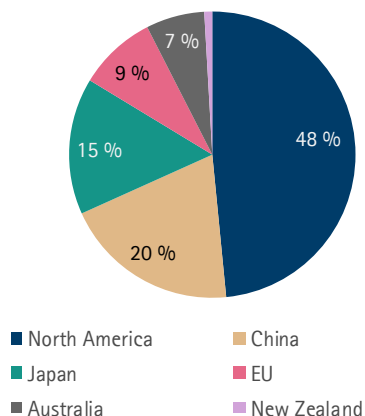
Source: Indufor via Raute, Evli Research

China produced 59% of global plywood output in 2017. The entire Asia-Pacific region had a share of 75%. According to Indufor, China and Russia are among the few producer countries which have increased their production volumes steadily during the 2000s. Meanwhile, production in North America is still clearly below the peak years (Indufor, 2015). According to Raute, the share of emerging markets is expected to continue growing in the foreseeable future. South East Asia, South America and Russia have an abundance of unutilized resources to be exploited as demand increases.

2.3. LVL market

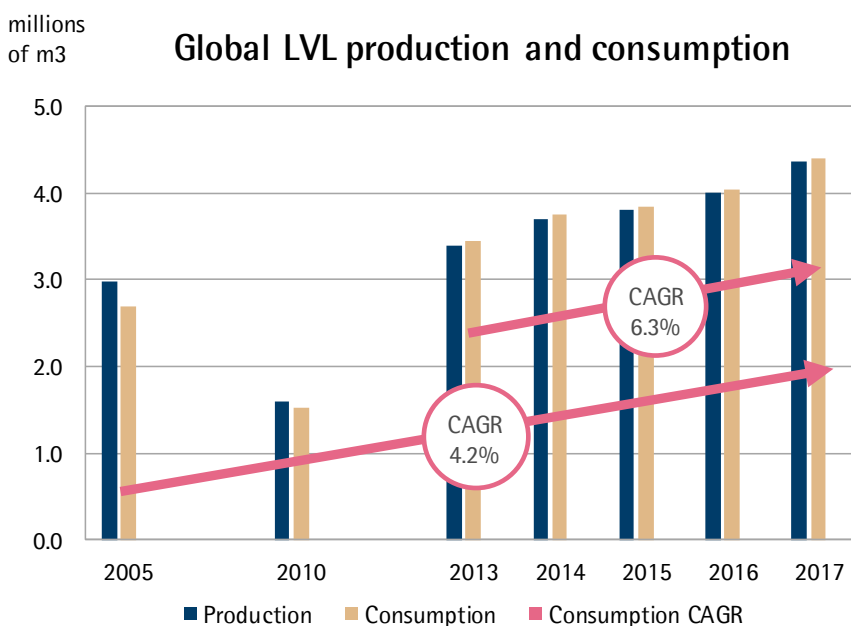
LVL manufacturing market was estimated to amount USD 2.3 billion in 2017 (IMARC, 2017). Meanwhile, Raute estimates that the global LVL production volume amounted to 4.3 million m³ in 2017. North America is the largest market for LVL in terms of value (IMARC, 2017) and production volume. Raute estimates that some 50% of the global LVL production is pressed with its machines.

LVL production by market area, 2017



Source: Raute, Evli Research

Global LVL production and consumption

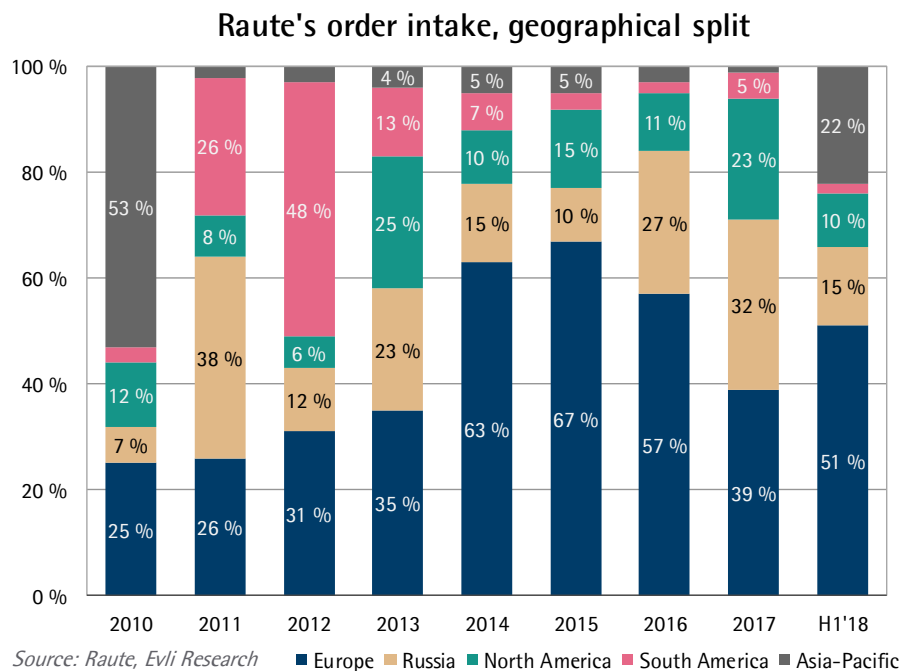
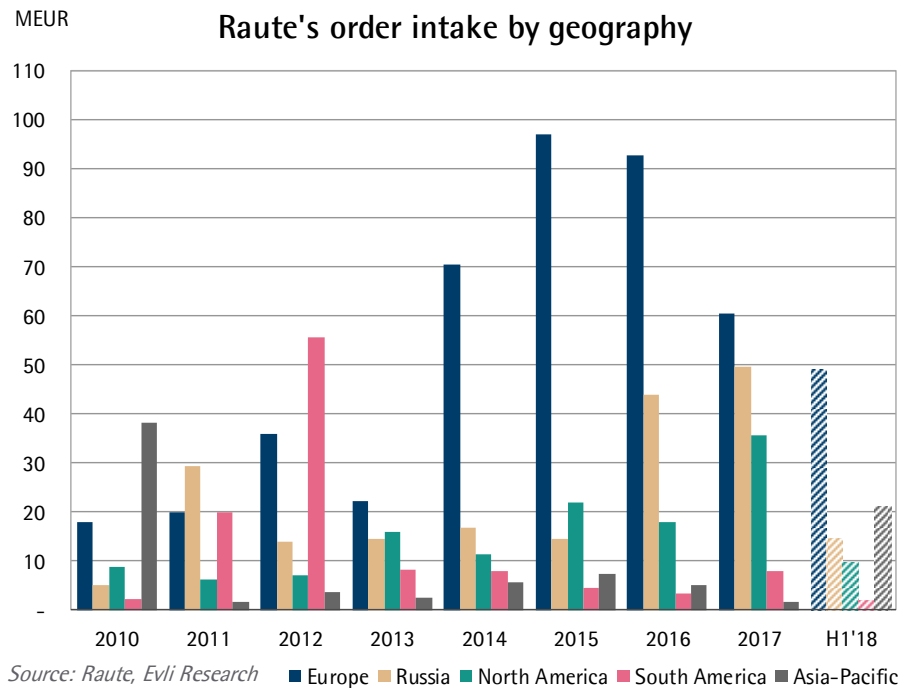


Source: Raute, Evli Research

After the financial crisis, construction volumes collapsed, which also reflected in LVL production volume. In 2010-2017, the market grew at a CAGR of 16% (IMARC, 2017) while production volumes increased at a CAGR of 15%. According to Raute, the North American, European and Japanese markets have grown at the fastest rate during 2011-2017. Meanwhile, growth in China has remained slow.

In recent years, growth in LVL production has been driven by prefabricated construction for which wood products such as LVL cater well. The LVL manufacturing market is estimated to grow at a CAGR of 15.6% in 2018-2023 (IMARC, 2017). Meanwhile, the modular construction market is estimated to grow at a CAGR of 6.9% in 2018-2023 (Markets and Markets, 2018).

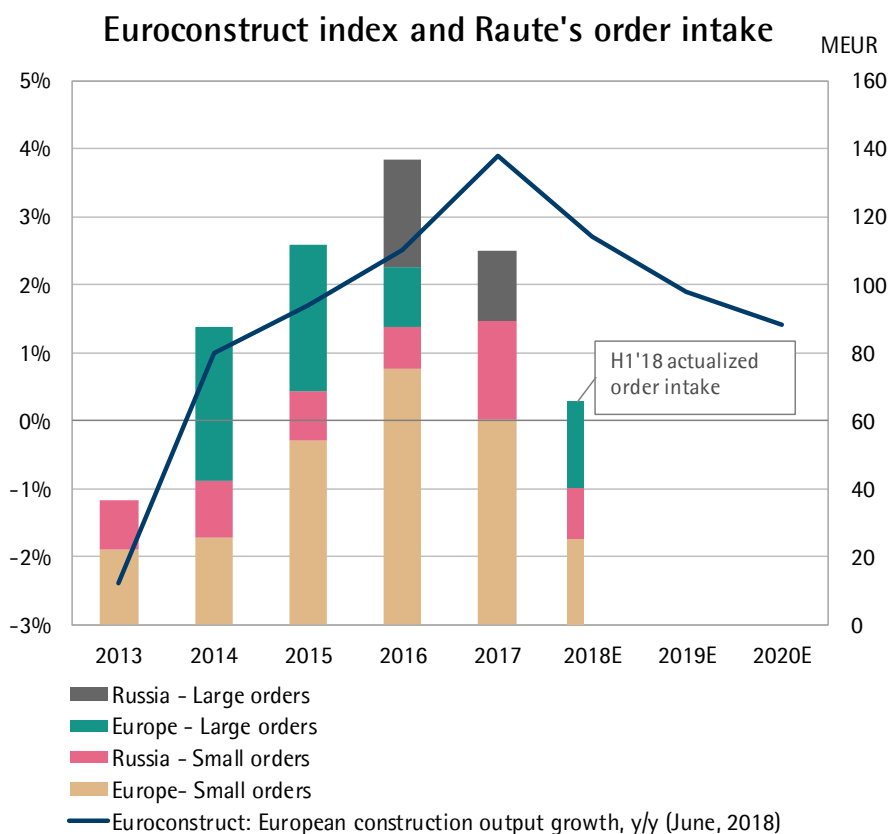
2.4. Raute's order intake by geography



Europe

Europe has dominated Raute's order intake since 2014 when the region's orders and net sales started to increase. In recent years, the European demand for plywood and LVL has been driven by a strong cycle in the region's construction industry. Meanwhile, Raute's order intake from Europe and Russia has increased rapidly. We see that the demand in Russia is partly driven by the European market since Russia exports approximately one quarter of its plywood production to Europe.

The Euroconstruct index (June, 2018) predicts that construction volume growth will decelerate in 2018, 2019 and 2020. Raute's order intake from Russia and Europe declined y/y already in 2017. In the long-term, Raute sees that investments in new capacity in Europe will be low. Meanwhile, Raute sees that growth will be driven by efficiency improvements and other aftermarket services.



Source: Raute, Euroconstruct, Evli Research

Russia

Raute's orders and net sales from Russia have increased rapidly in 2016-H1'18. Plywood production in Russia has more than doubled since the early 2000s levels. Although the domestic economy has suffered in recent years, exports and abundant wood resources have fuelled growth. In 2017, 2/3 of the plywood was exported, 50% of which to Europe. The region's forest resources are extensive, which create good growth potential for the future. Raute sees significant growth potential in maintenance services since the company has a large installed base in Russia.

North America

In 2017, a new LVL mill investment significantly increased Raute's orders from the region. However, this is an exception in the otherwise quiet equipment market. In North America, the demand for plywood and LVL collapsed after the housing market crisis. In addition, plywood has lost market share to OSB. Currently, the North American plywood and LVL markets suffer from overcapacity. However, the modernization market is comparatively active. Raute's installed base is often spread too thinly for efficient maintenance services.

China

Raute has received only few orders from this price sensitive market. Chinese plywood production volumes are by far the largest in the world. The production methods are

heavily based on manual labor, low technology and local machine suppliers. The end product often has poor quality.

Rest of APAC

Raute's order intake from APAC has remained low for long. However, in H1'18, Raute received a 20 MEUR order for LVL line equipment to Japan. This single order increased Raute's order intake from APAC significantly. Construction volumes in Japan are supported by preparations for the 2020 Olympic games.

After China, the largest plywood producers in APAC are Indonesia, Malaysia and Japan. Due to tightened environmental regulation in Indonesia and Malesia, there is scarcity of raw materials. However, planation resources support long-term growth in the area and fresh batches are close to reaching maturity.

South America

In South America, Raute's order intake and sales have remained subdued for long. The region's largest plywood producers are Chile and Brazil. According to Raute, the company has a strong market position in Chile where the produced plywood is of high-quality. Raute sees that the region's plantation wood resources are extensive and there is significant growth potential for plywood production in the region. However, the economic development in the region has remained weak until 2017.

Africa

Raute has no presence in Africa and has received only few orders from the region. However, Raute sees the market as a promising. Growth drivers in the region include increasing environmental regulation and plantation wood resources.

2.5. Raute's target market

Market for new equipment

Investments in new plywood and LVL equipment depend on the demand outlook for veneer-based products as well as current capacity utilization levels. However, there is very limited information available on production capacities or capacity utilization. Raute's understanding of the market situation is based on discussions with clients as well as spare part sales.

Raute estimates that the new equipment investments in its target market amount to about 600 (-800) MEUR annually under normal economic conditions. Raute's estimate is based on the historical price per capacity m³ as well as the historical growth in plywood production volumes. Raute estimates that its market share in plywood equipment is around 15-20 %.

Raute sees that the current investment activity is unusually high, due to the strong construction market cycle in Europe. Therefore, we expect that the upper end of their market estimate, 800 MEUR, is a more relevant estimate for the current market size. In the following chart, we have roughly estimated how the 800 MEUR could be geographically distributed, given the production volumes in each region, approximate technology and price level as well as recent investment activity. We emphasize that these estimates are for illustrative purposes only.

Market for new plywood and LVL equipment							
Region	Plywood production, m3 millions, 2017	LVL production, m3 millions, 2017	Technology and price level	General investment activity in the industry	Raute's market share	Current market size (illustrative)	Investment outlook
China	62	0.9	Low	High	Very low	Very large (~350 MEUR)	Stable
Rest of APAC	17	1.0	Moderate	Low	Low	Moderate (~90 MEUR)	Accelerating
Europe	3	0.4	High	High	Very high	Large (~120 MEUR)	Decelerating
North America	12	2,2	High	Very low	Moderate	Moderate (~90 MEUR)	Stable
Russia (CIS)	4	NA	Moderate to high	High	High	Moderate (~90 MEUR)	Decelerating
South America	5	NA	Moderate to high	Low	Moderate	Small (~50 MEUR)	Accelerating
Total	103	2.3	-	-	-	800 MEUR	-
Source	Indufor via Raute	Raute	Evli estimate, based on Raute's comments	Evli estimate, based on Raute's comments	Evli estimate, based on Raute's comments	Evli estimate, based on production volumes, estimated price level and recent investment activity	Evli estimate, based on Raute's comments

Market shares: Very high: >30%, High: 20-30%, Moderate: 10-20%, Low: 5-10%, Very low: <5%

Investments in new equipment are often sporadic and don't follow the production volumes smoothly. However, we can estimate that the production volumes and investments grow at the same average rate over long periods of time. This suggests that the global investments in new plywood equipment grow at a CAGR of 3-4%.

Based on typical capacity prices, we estimate that the European plywood equipment market has amounted to some 50-100 EUR per annum¹ during 2000-2017. Considering that the recent investment activity in the European market has been high, our current market estimate of 120 MEUR seems realistic.

Aftermarket services – Total

The aftermarket services can be divided into modernizations, spare parts and maintenance. Demand for modernizations is driven by environmental regulation and the efficiency improvements offered by new technology. Meanwhile, the demand for spare parts is driven by capacity utilization rates. The demand for maintenance services is driven by digitalization and automation as well as the rate at which producers outsource their maintenance operations.

Aftermarket services, summary			
Segment	Market size, MEUR	Raute's market share	Source
All equipment	500-800	6-10%	Evli estimates
of which Raute's equipment	75-160	30-65%	Evli estimates

The exact size of the aftermarket services is unknown. However, we estimate that the market could amount to 500-800 MEUR, based on Raute's 600 MEUR market estimate for new equipment. According to McKinsey (2017), the average annual service revenue amounts to 4-7 % of sales price for capital goods such as gas turbines and electric drives. We assume that the average lifetime of plywood equipment is 20 years.

¹ European investments in plywood and LVL capacity during 2015-2018 suggest that the price of European plywood capacity is 1000 – 4000 euros per m3 while the price for European LVL capacity is 400 – 800 euros per m3. These figures typically represent the price of an entire factory while Raute's equipment represent only a portion of total costs. Assuming a price of 1000-2000 euros per m3, using Indufor's estimates for European plywood production (some 5.0 million m3 in 2000 and some 5.9 in 2017) and expecting a constant increase in production capacity over the 2000-2017 period, we estimate that the European plywood equipment market has amounted to some 50-100 MEUR per annum.

We estimate that Raute's share of the global services market amounts to 6-10%. Raute's market share is likely the strongest in Europe and significantly weaker elsewhere.

Aftermarket services – Raute's installed base

We estimate that the services market for Raute's installed base amounts to 75-160 MEUR while Raute's market share could be anywhere between 30% and 65%. A great majority of Raute's modernizations and almost all maintenance work is offered for its own installed base. In spare parts, the share of competitors' equipment could be higher.

Aftermarket services, Raute's installed base				
Segment	Market size, MEUR	Market share	Raute's revenue in 2017	Source
Modernizations	-	-	21-43	Evli estimates
Spare parts	-	-	4-21	Evli estimates
Maintenance	20-60	15 %	3-9	Evli estimates
Total	75-160	30-65%	50	Evli estimates

In terms of market share, we see that Raute has significant room for growth in maintenance services. We estimate that the maintenance market amounts to 20-60 MEUR while Raute's market share is only 15%, amounting to 3-9 MEUR net sales². Meanwhile, we estimate that Raute's modernization sales amount to 21-43 MEUR while spare part sales amount to 4-21 MEUR³.

2.6. Competitive landscape

Raute's competitors include companies which specialize in wood processing equipment. These include USNR and Angelo Cremona. Other competitors serve a broader range of industries. These include Biele, Bürkle, Fezer, Grenzebach, Siempelkamp, Altec and Fill. In Asia and outside China, Raute mainly competes with the Japanese Taihei, Meinan and Hashimoto. In China, Raute faces tough competition from many local manufacturers, which operate at low price points. All the mentioned competitors are unlisted, which limits public financial information about them. In the maintenance market, Raute also competes with the internal maintenance functions of its clients.

Raute's market share is the strongest in Europe and Russia where Raute is the leading operator. In North America, Raute's market share is strong in LVL equipment and moderate in plywood. In South America, Raute has a strong position in Chile and moderate in Brazil. In South-East Asia, the company has a low market share. In China, Raute has won no significant market share.

- **Raute's strong focus allows deep expertise**

Raute focuses on a niche segment, which allows a wider product portfolio and deeper expertise in veneer production technology. As a result, Raute has a comprehensive understanding of the entire plywood and LVL production process.

² We estimate that Raute's installed base amounts to some 2000 units, given that the company delivers roughly 100 equipment each year. In addition, we assume that the average lifetime of Raute's equipment is 20 years. Meanwhile, our understanding is that 10-30 thousand euros for an annual maintenance contract is not unusual. Given that Raute has a maintenance contract for about 300 equipment, we conclude that the market size is 20-60 MEUR while Raute has a market share of about 15%. Raute also sells occasional maintenance gigs but these have a minor role in the maintenance business.

³ According to Raute, modernizations represent the largest category of technology service revenue while spare parts represent the second largest category. Based on this information and the earlier estimated maintenance revenue, we can roughly estimate the revenue generated by each segment.

- **Highly credible operator for large and long-term projects**

In large and long-term projects, Raute's credibility is supported by the company's long customer relationships with the plywood industry's major players. Raute's healthy financial position gives further support to this credibility. Finally, Raute's status as a listed company signals high compliance and transparency, which is a further advantage in procurement processes.
- **Only player supplying entire production lines**

According to Raute, they are the only player capable of supplying machinery for the entire production process of plywood and LVL. We see that this is a source of competitive advantage in markets where investments in new capacity are high. While the European construction activity will eventually tail off, Raute's capabilities are likely valued in emerging market, as well. Raute's Western and Japanese competitors are expanding their scope to larger solutions through partnerships but we see that Raute's experience helps it to maintain the competitive advantage for some time.
- **Veneer peeling at the heart of competitiveness**

Raute's efficient veneer peeling solutions are the most competitive part of the company's offering. Efficient veneer peeling conserves raw materials.
- **Client mindset favors in-house service capabilities**

Some of Raute's clients consider maintenance services as part of their core business and will not outsource those functions. There is little that Raute can do to change this mindset.
- **Critical mass achieved in Europe and Russia, mixed or weak elsewhere**

Critical mass of installed equipment is central for Raute's competitiveness in the maintenance service market. If Raute has a sufficient installed base in a region, travel time is minimized and Raute can offer maintenance services at a competitive price. In Europe, Raute has achieved the critical mass in many regions. In contrast, Raute's installed base in North America is often spread too thinly, even though the coverage is wide. In Russia, the installed base is often sufficient, but the market is very price sensitive. In other regions, Raute's installed base is often too thin. Raute sees that, in the long term, digitalization and IoT could decrease the need for travelling and drive growth in maintenance services.
- **Chinese competitors – Strong at their home market, challengers in Indonesia**

In China, the price sensitivity is a challenge for Raute. Despite cutting the level of automation, Raute's equipment have still not won any significant market share in the country. Raute does not aim to produce low quality equipment, even for the Chinese market. Instead, the company is waiting for the local quality requirements to rise closer to Raute's price point. Meanwhile, Chinese competitors have started to export low cost equipment to other emerging markets, particularly to Indonesia.
- **OSB challenges plywood in some markets**

Plywood is competing with other wood-based panels. In construction, the key competitor is oriented strand board (OSB), which is heavier than plywood and has lower durability and sturdiness. However, OSB is cheaper and it can be produced from small diameter and faster growing trees than plywood⁴.

⁴ Source: <https://www.nachi.org/osb-plywood.htm>

OSB is used particularly in North America for small house construction. Despite its low price, OSB is not very widely used in the price sensitive Chinese market, even though the country's first OSB mill was built already in 1990 (Jin, Chen, Wellwood, 2016). In 2015, Indufor (2015) estimated that the consumption of OSB was increasing in Europe but was mainly substituting imported plywood from Chile and Brazil. Indufor (2015) also estimated that OSB would challenge plywood in the Russian construction market.

According to Raute, OSB's competitive position is weakened by its high initial investment requirements. Based on our research, European and Russian investments in plywood factories typically amount to 30-100 MEUR each while investments in OSB factories amount to 100-300 MEUR each.

2.7. Acquisitions

Raute has made very few acquisitions in recent years. In principle, Raute has good means for inorganic growth since the market is fragmented and Raute's financial position is healthy. However, Raute sees that the company is largely at the forefront of veneer processing technology, which reduces their interest in technology driven acquisitions.

Raute sees that acquiring market share in emerging economies would be problematic since Raute's own equipment are often too expensive for those markets. Meanwhile, Raute does not want to have its name on locally produced equipment if the quality can't be guaranteed. However, we see that Raute could acquire market share in North America. In that region, acquisitions would grow Raute's installed base, build critical mass and support maintenance services.

In April 2017, Raute made its first acquisition in over ten years by acquiring the grading technology company Metriguard in the United States. Grading refers to the evaluation of the strength of veneer to control the structural properties of the end product. Metriguard's products have been integrated to Raute's deliveries for years, which makes the acquisition a logical extension to Raute's service offering. The net sales of Metriguard were USD 4.6 million with an EBIT of USD 0.8 million in 2016. The purchase price of the acquisition is estimated to be USD 4.5 million, which makes the transaction moderately priced given the synergy potential and sound profitability.

3. Financials

3.1. Overview of recent performance

Raute's order intake, net sales and operating profit have reached record highs since 2015 as the economic condition in Europe have gradually improved. Meanwhile, demand for technology services, particularly for spare parts, has remained at a good level, indicating that clients' capacity utilization rates are high.

In 2017, the general economic trend turned more positive and accelerated towards the end of 2017. As a result, the demand for Raute's products and services strengthened, particularly in the developed markets, Europe and North America. In addition, demand in Russia continued to increase. South American and Asian economies strengthen towards the end of 2017 but that did not yet translate into new orders for Raute. The only weak area was modernization sales. According to Raute, the weakness was likely driven by a preference for new equipment among clients.

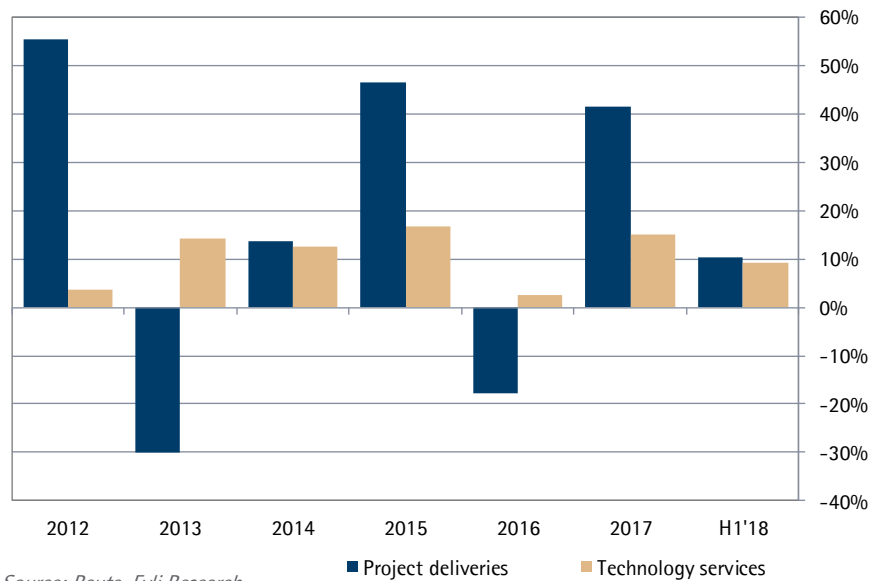
In H1'18, the strong demand in Europe continued. Raute achieved the first major order from Asia, Japan in a long time. Meanwhile, demand from emerging economies was moderately improving but continues to focus on simple and inexpensive technology.

Currently, the demand is strong in industrialized markets, Europe, North America and Russia.

3.2. Net sales and operating profit

Raute's net sales are strongly driven by project deliveries, which create significant volatility both q/q and y/y. Meanwhile, technology service revenue has grown every year since 2009. However, service revenue is not immune to economic cycles: the demand for spare parts increases when capacity utilization is high.

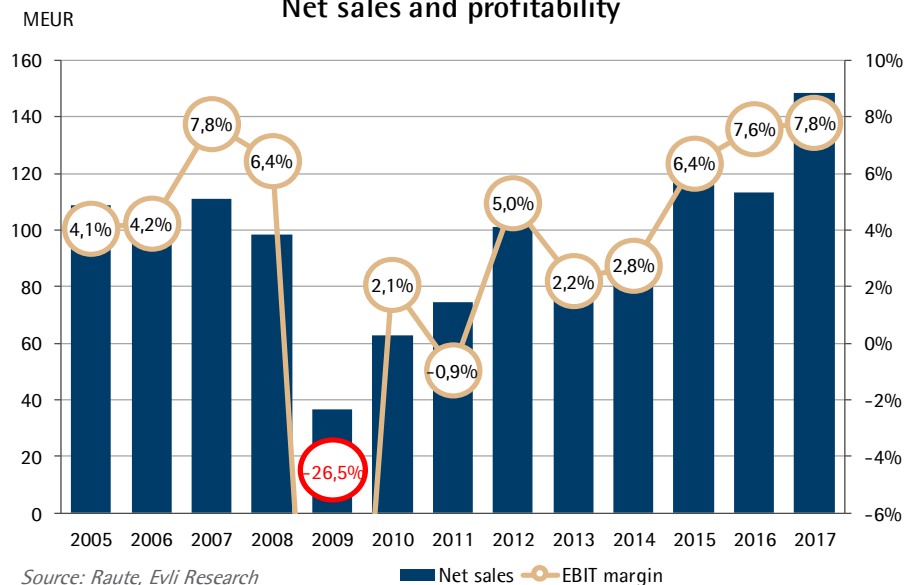
Sales growth (y/y) by business area



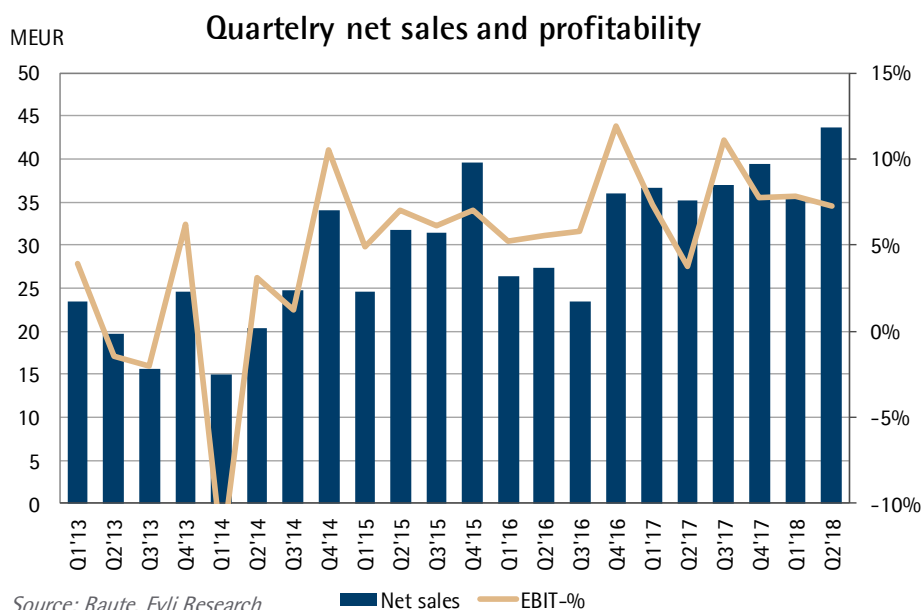
Source: Raute, Evli Research

Raute's EBIT and net sales reflect economies of scale although quarterly profitability is also impacted by sales mix. While Raute's gross margin and cost structure have remained largely unchanged since 2012, Raute's EBIT margin has improved due to the scaling of other operating expenses. In 2009, Raute's operating margin was deeply negative as net sales fell exceptionally low. The event illustrates how volatile project sales can have a strong impact on EBIT-% through scale economies.

Net sales and profitability

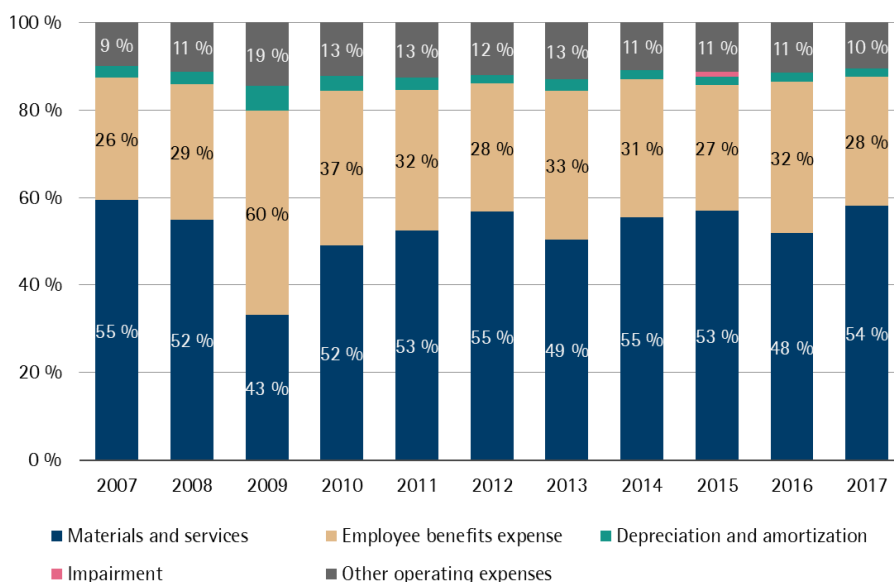


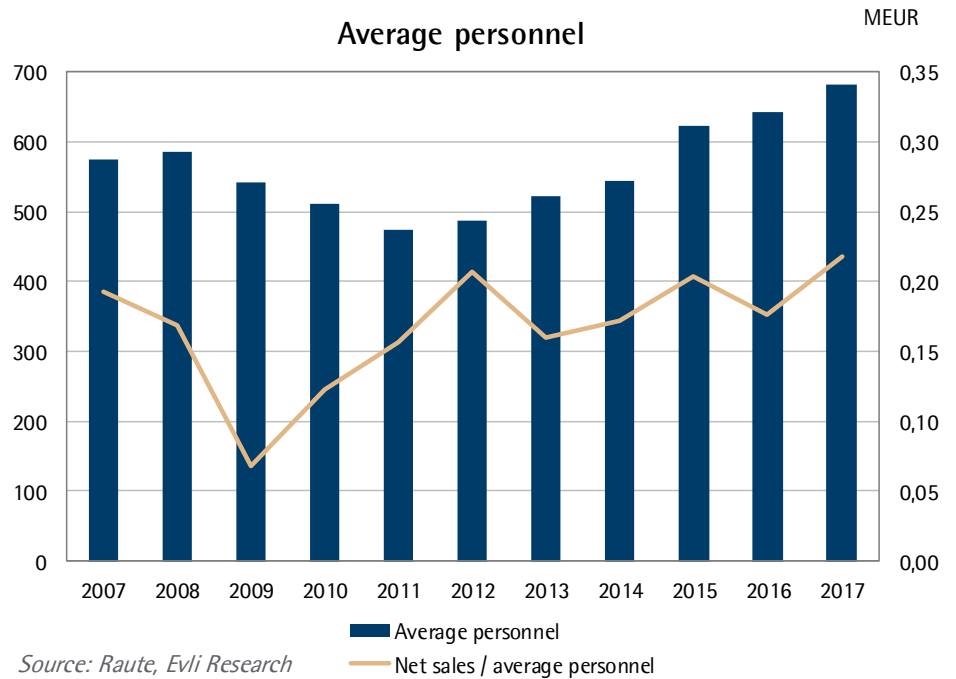
Source: Raute, Evli Research



The majority of Raute's fixed costs consist of personnel (29% of net sales in 2017). At the end of H2'18, Raute employed 778 people, 91% of which were full-time employees. In 2017, Raute's net sales / personnel ratio reached its highest level so far, indicating a high work load. According to Raute, personnel is currently working significant overtime and the share of outsourced manufacturing is remarkable.

Cost structure



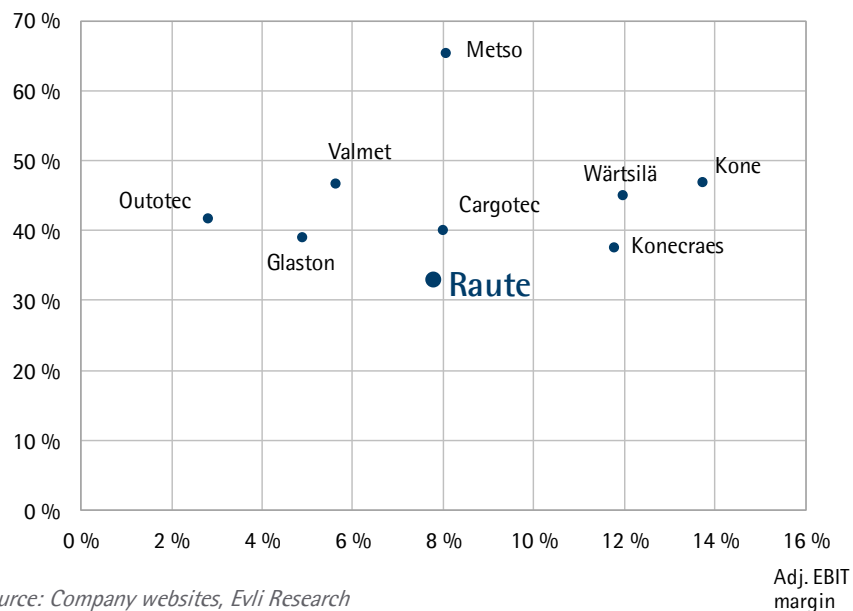


In the reference group of Finnish machinery companies, Raute's operating margin was in the mid-range during 2017. Given that the current investment cycle is strong in Raute's target market, the profitability seems somewhat low. Meanwhile, the share of service sales is the lowest in the reference group.

Raute does not disclose its EBIT margin separately for equipment and services, which is common among Finnish machinery companies. However, Raute sees that its business is in many ways similar to Glaston whose service EBIT margin amounted to 12.4% in 2014. We see that another reference point could be Konecranes whose services EBITA margin was 13.7% in 2017.

Service sales, % of total sales

Finnish machinery companies, 2017

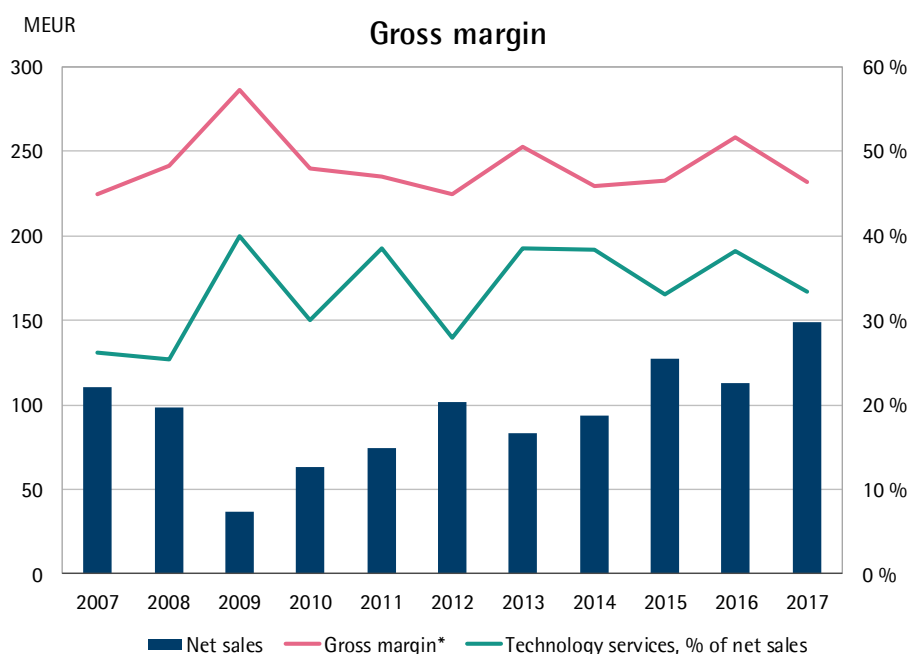


3.3. Outlook for 2018

In September 17, 2018, Raute upgraded its 2018 guidance. According to the new guidance, Raute estimates that net sales will increase, and operating profit will improve in 2018 compared to the previous year. The new guidance assumes that no material surprises on the labour market will take place during the rest of the year. Earlier Raute estimated that net sales and operating profit for 2018 would be at the previous year's level.

3.4. Gross margin

Raute's gross margin is driven by sales mix, particularly the share of service sales. The annual gross margin has mostly varied between 45-50% during the last 10 years. In the same period, service sales have mostly varied between 30-40% of net sales, depending on the timing of large project deliveries, which typically have lower margins than service sales. In recent years, Raute has increased the share of outsourced production, which likely limits the gross margin.



Source: Raute, Evli Research

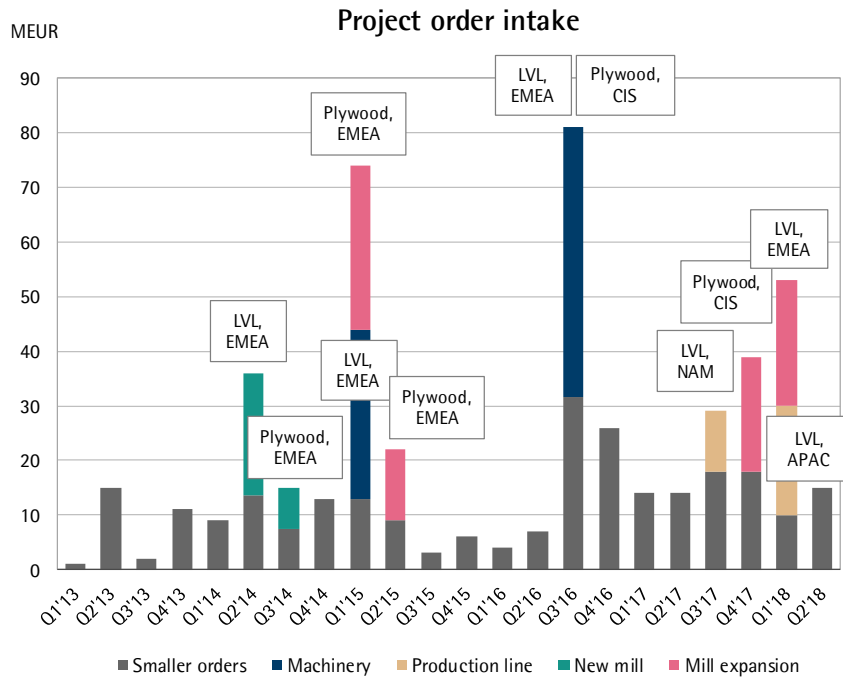
* $(\text{Net sales} + \text{change in inventory} - \text{materials and services}) / (\text{Net sales} + \text{change in inventory})$

3.5. Order intake

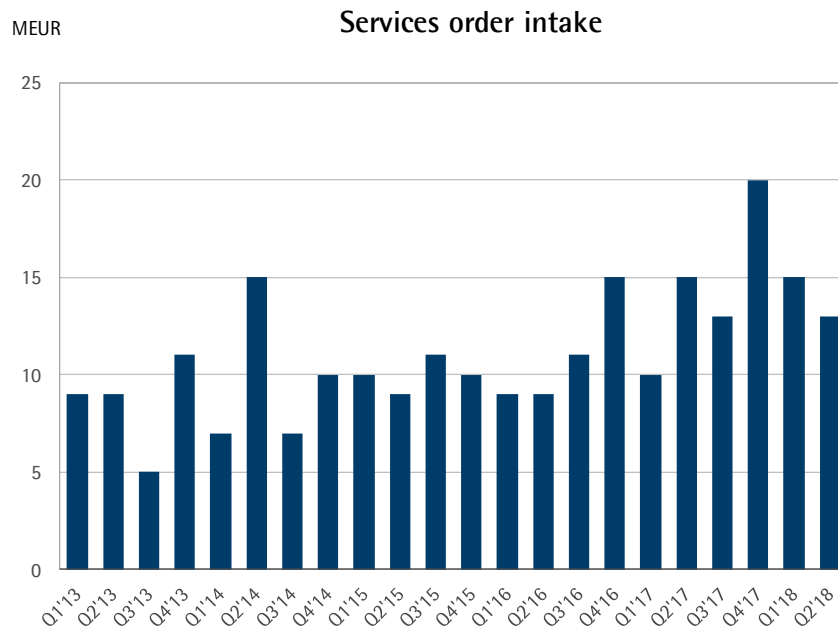
Raute's project order intake is very volatile since Raute's products are investment goods and therefore the demand fluctuates strongly with economic cycles. The project orders are driven particularly by large mill scale capacity expansions, of which there are usually 0-3 every year. However, part of the deliveries are replacement investments, which create a more stable underlying demand for projects.

If we separate the largest orders from Raute's project order intake, we see that the underlying order intake is somewhat more stable and likely more representative of the underlying demand. During the previous six quarters, the underlying order intake has varied between 10 and 18 MEUR.

The services order intake is comparatively stable.



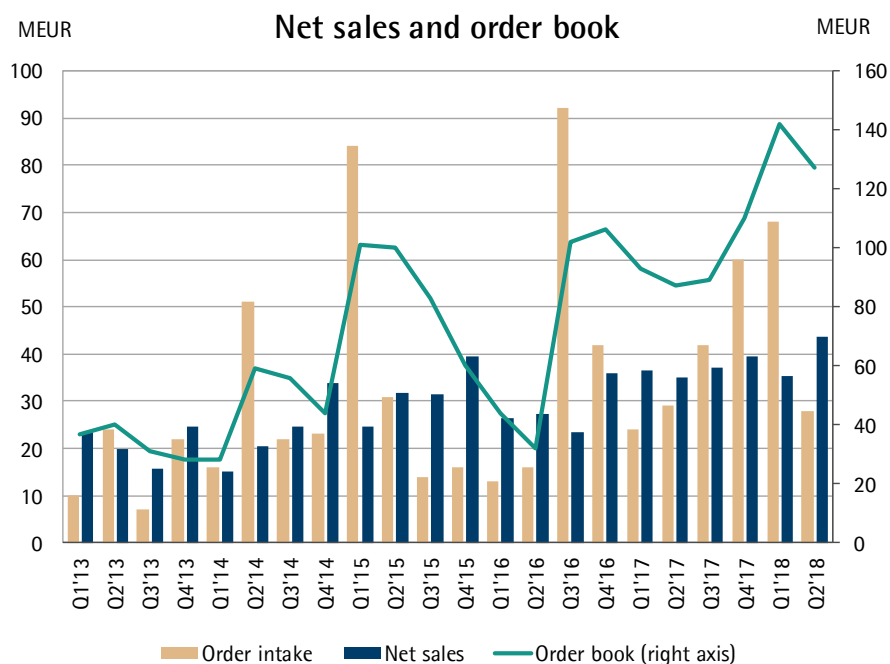
Source: Raute, Evli Research



Source: Raute, Evli Research

3.6. Order book

Typically, Raute's order book reflects the next 6-12 month sales. The usual delivery time is 11 months for a production line, 6-7 months for machines and 4 months for modernizations and the shortest for spare parts. Maintenance contracts are not recorded in the order book. Typically, Raute recognizes revenue by Percentage of Completion based on accumulated costs.



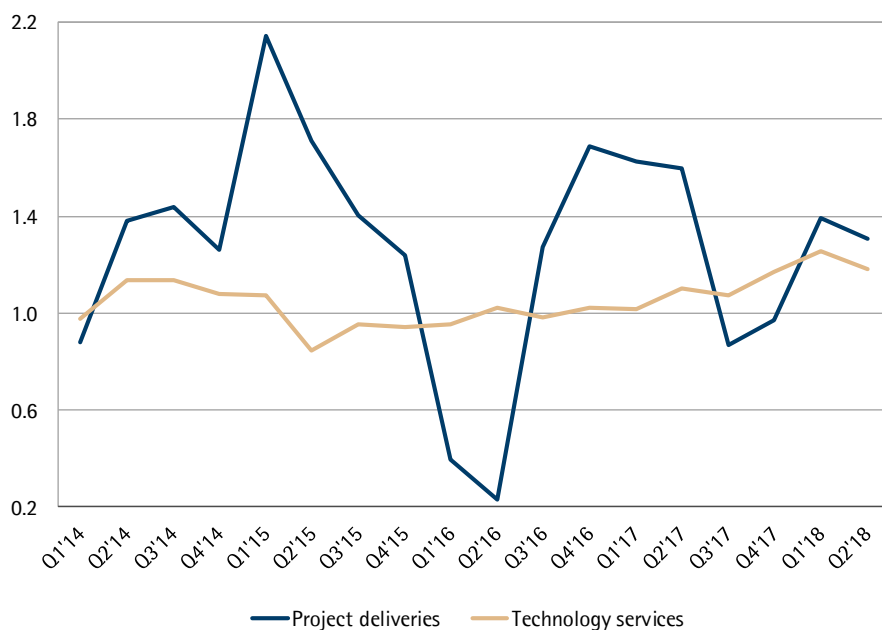
Source: Raute, Evli Research

In Q1'18, Raute's order book hit a record level of 142m EUR, which signals a strong phase in the investment cycle. At the end of H1'18, Raute's order book stood 46% higher y/y which suggests that H2'18 net sales could grow significantly y/y. Most of the current order book is scheduled for next year and a small fraction for 2020. Delivery times have lengthened for large orders. However, Raute sees that this has not affected the company's competitive position.

Raute does not disclose the order book separately for technology services or project deliveries. However, the 12m rolling book/bill⁵ indicates that the technology services order book has been increasing in 2017 and 2018.

⁵ Order intake / net sales

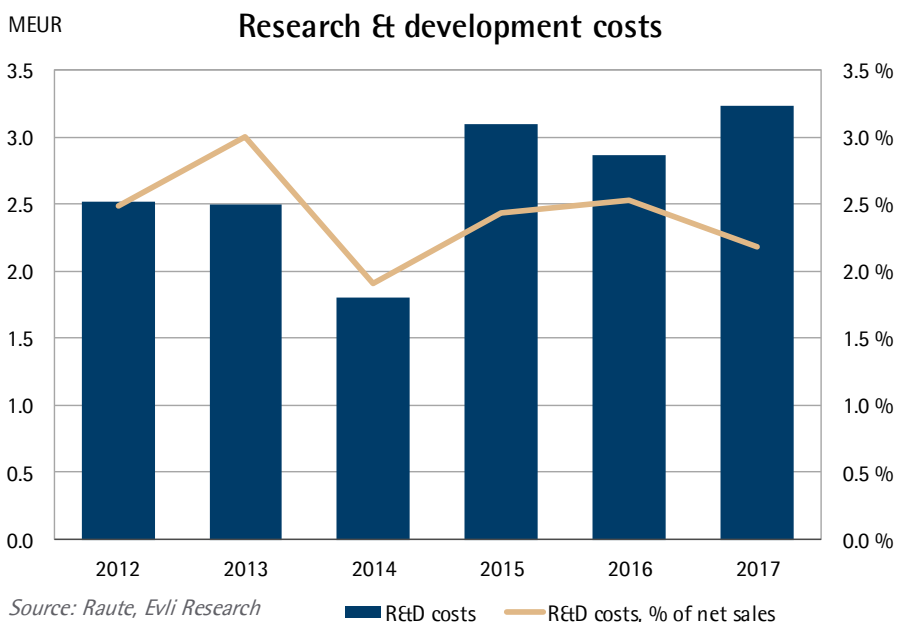
Rolling 12m book/bill



Source: Raute, Evli Research

3.7. R&D expenditures

During 2014-2017, Raute's R&D costs have amounted to about 2-2.5% of net sales. Almost all of Raute's R&D expenses are recognized as costs.



Source: Raute, Evli Research

3.8. Cash flow

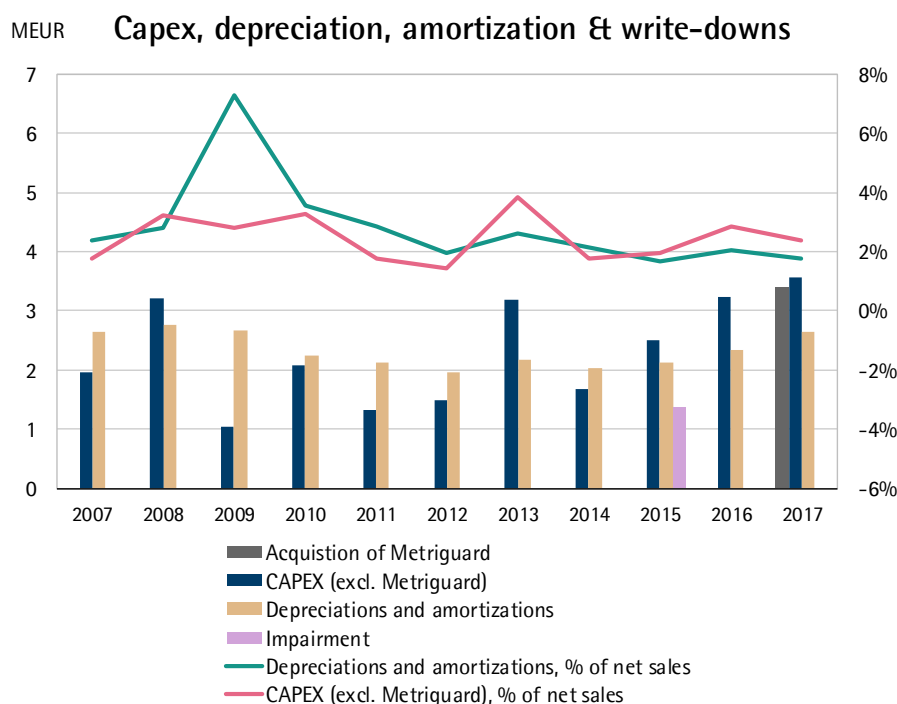
Raute generally signs reimbursement deals outside Finland and the United States. In addition, large orders regularly involve reimbursements. The first advance payment usually amounts to 20% of the deal value. The schedule of payments for large projects has a strong and largely unpredictable impact on Raute’s cash flow.

3.9. Taxation

Raute’s tax rate mostly follows the Finnish tax rate. In North America, Rautes' subsidiary usually earns a break even result. In China, Raute’s earlier losses shield it from taxes for some time.

3.10. Capex and depreciations

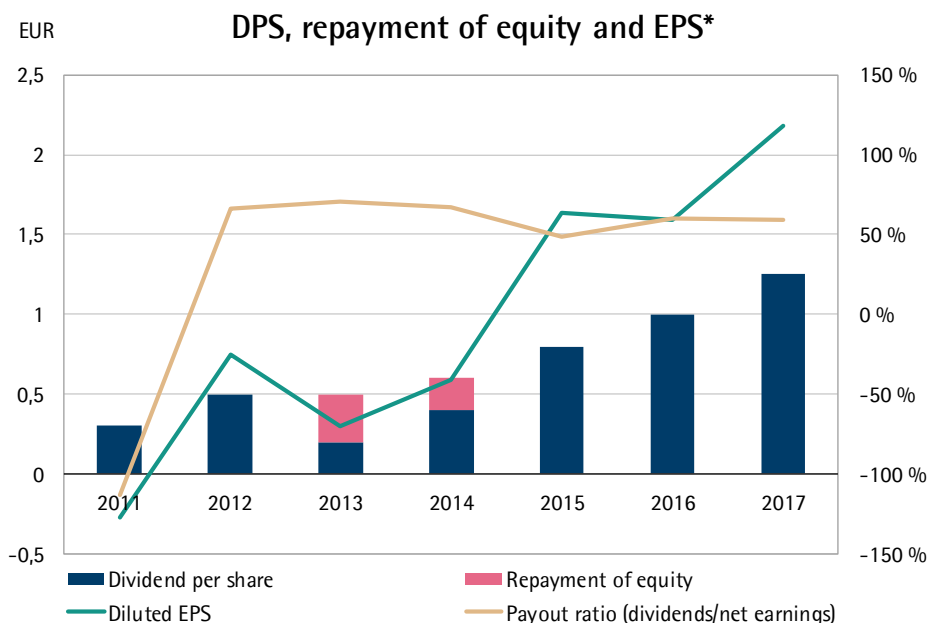
Raute’s CAPEX and depreciations have been largely in balance if we omit the acquisition of Metriguard in 2017. So far, Raute has used outsourced manufacturing services to meet the high demand and the company does not expect substantial investments in capacity going forward. The CAPEX outlook is in line with Raute’s view that the European investment activity will tail off in the foreseeable future.



Source: Raute, Evli Research

3.11.Dividends

Since 2012, Raute's dividend has amounted to about 50-70% of net earnings. In addition, Raute's shareholders have received repayments of equity in 2013 and 2014. Due to the volatile project business, the dividend is not directly tied to Raute's net result. Despite this, the sum of dividends and repayments has either remained stable or increased every year since 2010.



3.12.Ownership

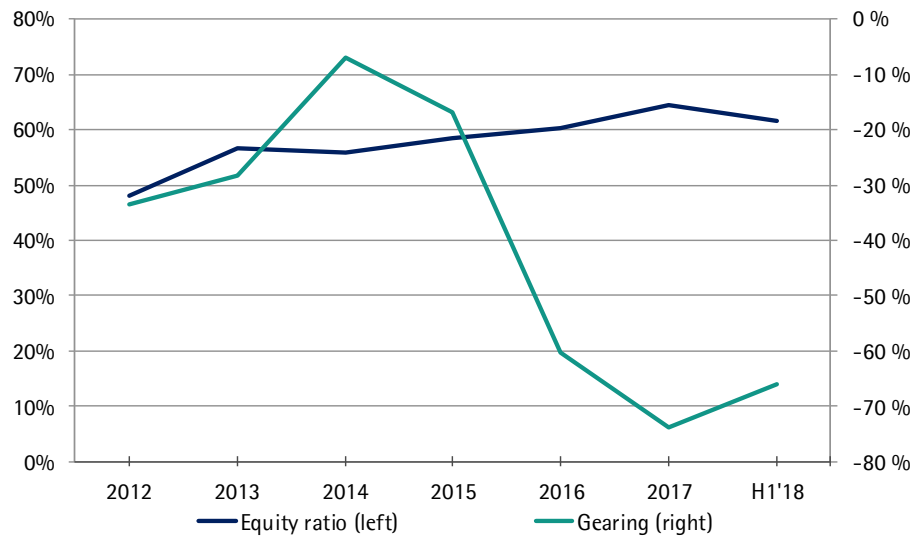
Raute has two share series, A and K.. A shares have 1 vote/share while the K series has 20 votes/share. At the end of H1'18, the A series represented 77% of all shares and 14% of all votes. The remaining shares and votes belong to the K series. Series A shares have been quoted on Nasdaq Helsinki since 1994. The owners of K shares are linked to the founding Mustakallio family.

The ownership of Raute's shares is concentrated, which reduces their liquidity. On the 31st of August, the twenty largest shareholders owned 46% of total shares and 40% of A shares. 15 of the 20 largest shareholders also own K shares. Some 6.7% of shares are nominee registered.

3.13.Balance sheet

Raute has maintained a strong balance sheet, which is understandable given the cyclicity of the industry. Raute's interest bearing liabilities have declined over the past years and gearing reached -60% in 2016. Currently, Raute's balance sheet does not contain long-term interest-bearing liabilities. Raute's equity ratio has increased steadily for the past five years, amounting 62% in 2017.

Equity ratio and gearing



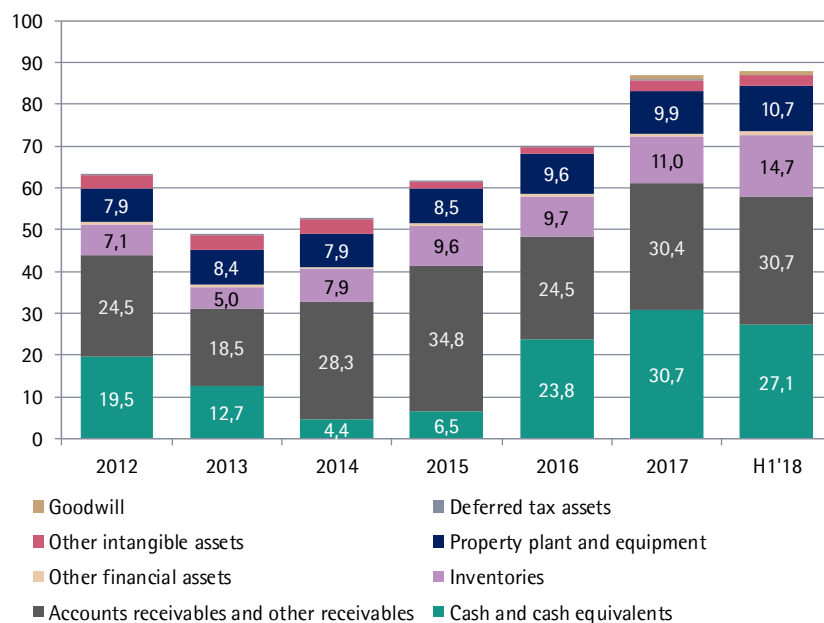
Source: Raute, Evli Research

The goodwill on Raute's balance sheet amounts to only 1 MEUR which is linked to the acquisition of Metriguard. Other intangible assets amount to 2.5 MEUR. They declined somewhat in 2015 due to an impairment totalling EUR 1.2 million. The impairment was caused by the discontinuation of an R&D project.

Tangible assets amounted to 10 MEUR at the end of 2017, most of which relate to Raute's production locations in Nastola, Finland. 50% of the tangible assets consist of machinery while 34% consist of buildings and structures.

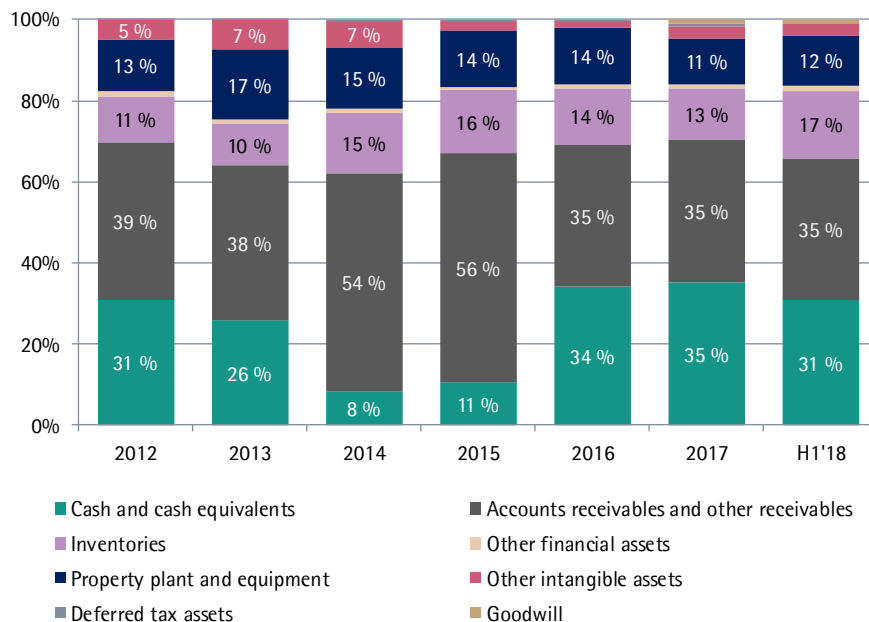
Raute's accounts receivable and cash balance have varied significantly, in line with the unpredictable payment schedule of larger projects.

MEUR Assets



Source: Raute, Evli Research

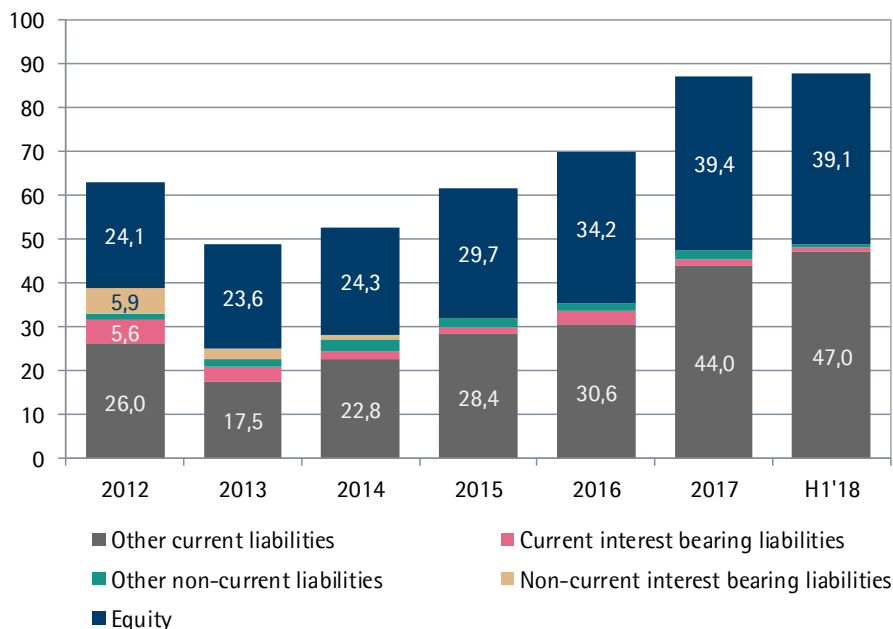
Assets



Source: Raute, Evli Research

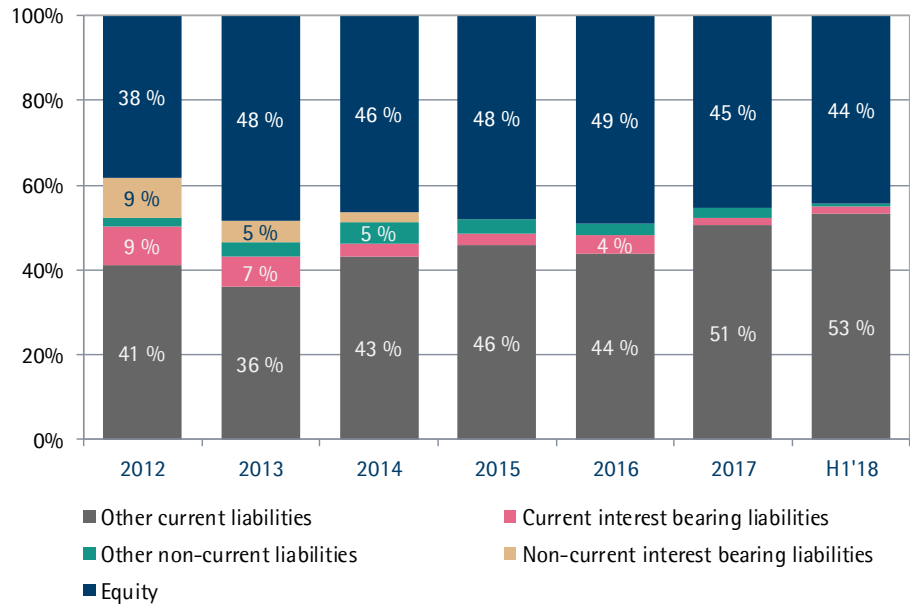
Liabilities

MEUR



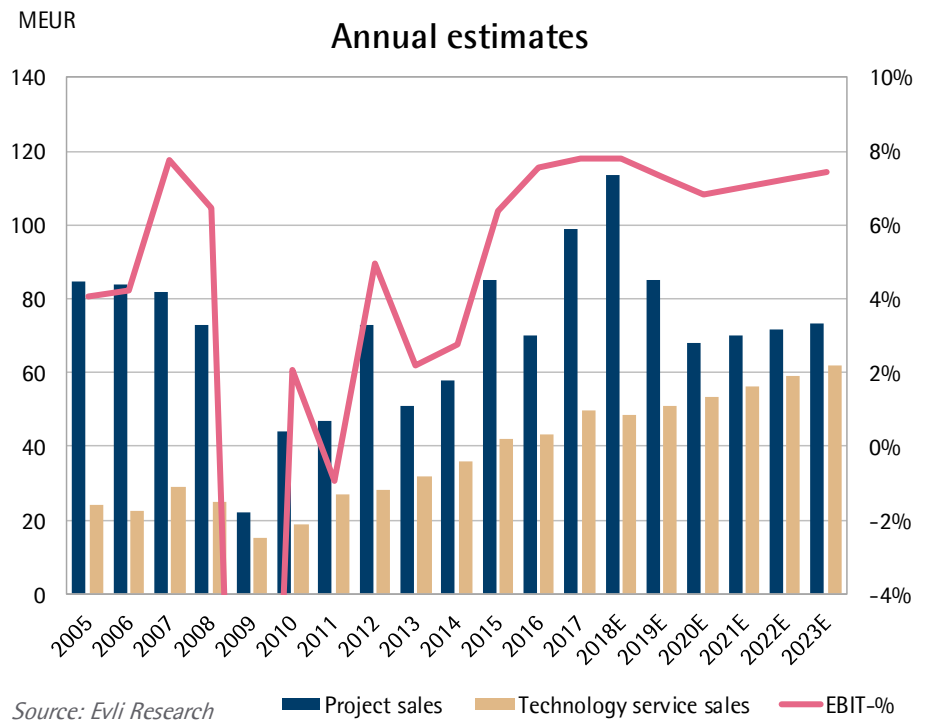
Source: Raute, Evli Research

Liabilities

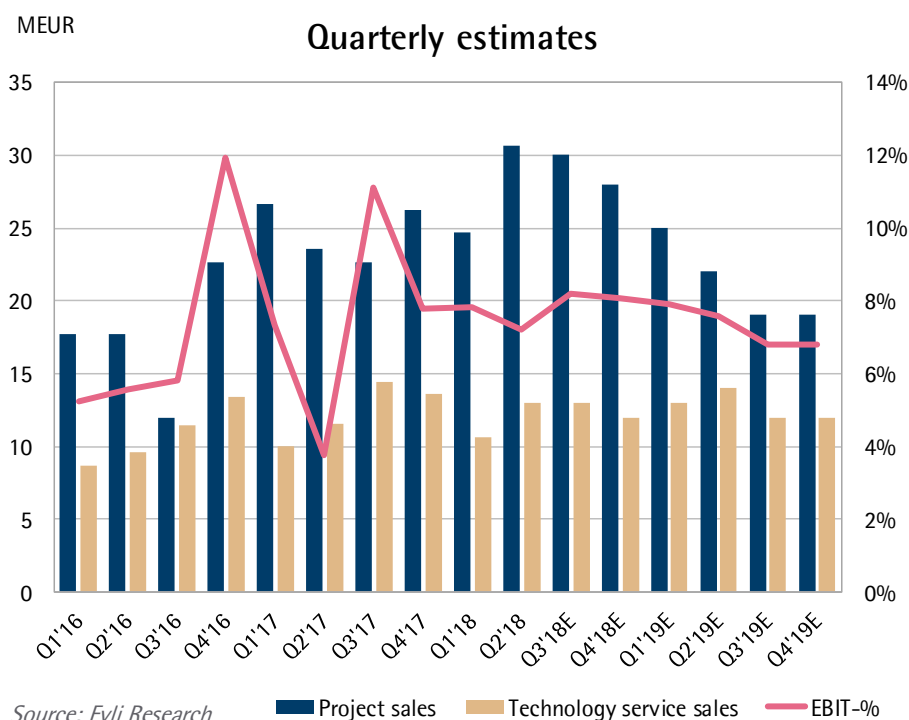


Source: Raute, Evli Research

4. Estimates



Source: Evli Research



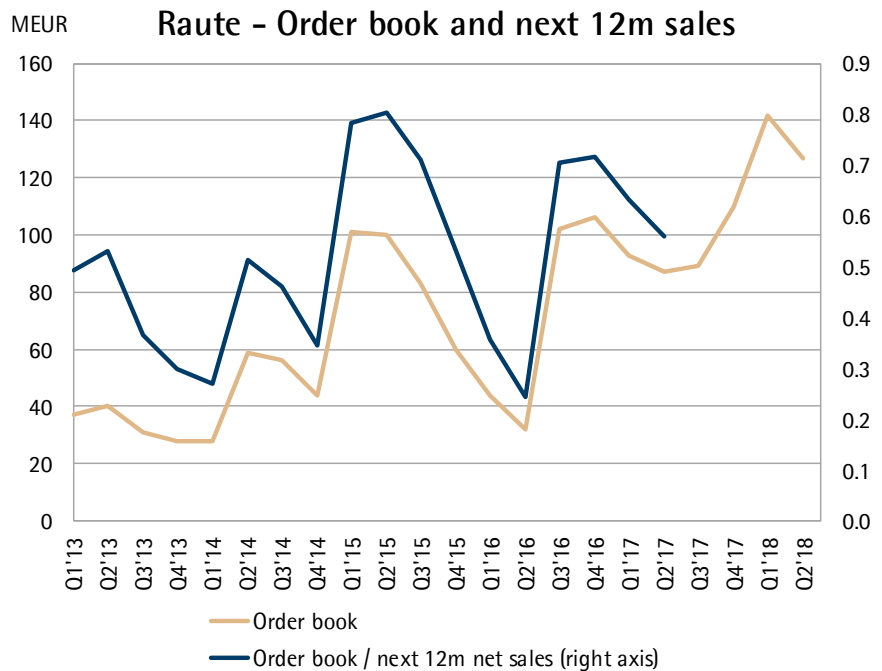
4.1. Net sales

For 2018 and 2019, our estimates are largely based on the last 12m order intake and the current order book. For 2020, our sales estimates are based on the assumption that Raute's project order intake declines close to its 2013-2015 median level as the investment activity in Europe normalizes. For 2021-2023, our sales estimates are based on the estimated market growth as well as Raute's expected market share development.

2018-2019:

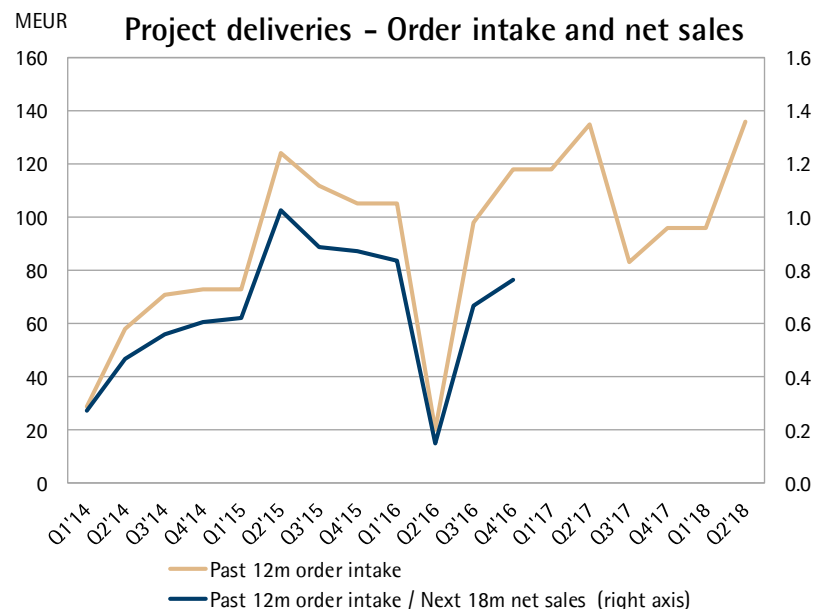
For 2018, our estimate of EUR 162m net sales (+9.0% y/y) and EUR 12.7m EBIT (+9.4% y/y) are in line with Raute's guidance: Raute expects net sales to increase and operating profit to improve in 2018 compared to the previous year. For 2019, we estimate EUR 136m net sales (-16% y/y) and EUR 10m EBIT (-21.4% y/y).

Our estimates for 2018-2019 are largely based on the past 6-12m order intake and Raute's order book. For the next 12m, we estimate 157 MEUR net sales. The estimate is in line with the past correlation between Raute's order book and next 12m sales. At the end of Q2'18, Raute's order book stood at EUR 127m, which suggests some 160 MEUR net sales for the next 12 months.



Source: Raute, Evli Research

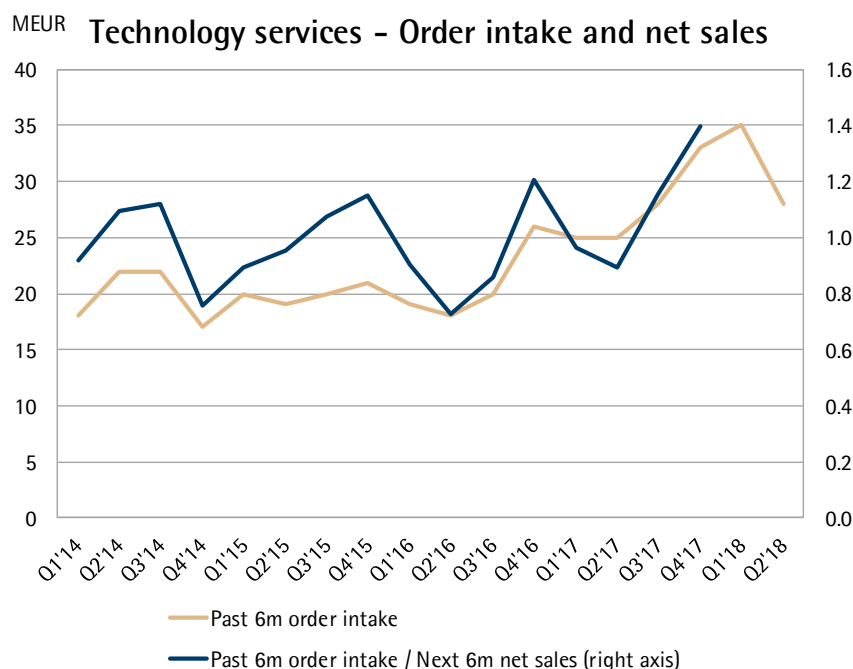
For project deliveries, we estimate 113 MEUR net sales in 2018 (+15% y/y) and 85 MEUR in 2019 (-25% y/y). For project deliveries, the ratio of past 12m order intake and next 18m net sales has varied between 0.2 and 1.5. Given the last 12m order intake, we estimate 140 MEUR project sales for the next 18 months.



Source: Raute, Evli Research

For technology services, we estimate 49 MEUR net sales for 2018 (-2% y/y) and 51 MEUR for 2019 (+5% y/y). The ratio of the past 6m order intake and next 6m net sales has usually varied between 0.7 and 1.2. Given the last 6m order intake, we estimate 25 MEUR sales for the next 6m. In 2019, we estimate that the demand for Raute's spare parts declines as investment activity in Europe continues to normalize. However, the rolling

12m book/bill ratio indicates some buildup⁶ in Raute's services order book, which supports sales in the near term. Meanwhile, we estimate that maintenance service sales and modernizations remain stable or increase.



Source: Raute, Evli Research

2020:

In 2020, we estimate that Raute's net sales amount to 122 MEUR (-10.5% y/y). Our estimate reflects a normalization in Raute's project order intake from Europe and Russia while progress in emerging markets remains modest. Our understanding is that Raute's order book does not extend to 2020 in any significant degree, which increases uncertainty.

We estimate 68 MEUR project sales and 54 MEUR service sales for 2020. Our project sales estimate is consistent with project order intake of about 70 MEUR per annum, which is close to the 10 year average and the 2013-2015 median. We estimate that the lower limit for project order intake is 30-50 MEUR per annum⁷.

2021-2023:

We estimate that Raute's net sales grow at a CAGR of 3.6% in 2021-2023. We see that the growth is driven by technology services sales (5% CAGR) and Raute's installed base. Meanwhile, we estimate that project sales grow at a modest CAGR of 2.5% - limited by slow GDP growth in developed economies and challenging competitive environment in emerging economies.

In 2021-2023, we estimate that Raute's project sales grow at a CAGR of 2.5% which is slightly faster than the 1.9% CAGR in 2008-2017. We estimate that a large share of

⁶ See "3.6. Order book"

⁷ Assuming that Raute's installed base amounts to 2000 units, each unit has a 20 year lifetime and costs 0.3-0.5 MEUR, we conclude that project order intake is unlikely to fall below 30-50 MEUR per annum

Raute's project sales continue to originate from advanced economies, where GDP is estimated to grow at a CAGR of 1.5-1.7% in 2021-2023 (source: IMF). While quality requirements in China are likely to rise, we see that the Chinese competitors will also improve their offering and continue to expand to new markets. As a result, we estimate that Raute will benefit only modestly from the faster growth in emerging economies (CAGR of 4.8-4.9 % in 2021-2023, according to IMF). Based on Indufor's (2015) comments, we also see that OSB could negatively affect plywood's market position in Russia.

In 2021-2023, we estimate that Raute's service sales grow at a CAGR of 5.0% which is slightly below the 5.6% CAGR in 2008-2017. Raute's service sales have grown faster than project sales during the past decade. However, we estimate that there is still room to grow, particularly in maintenance services, which also drive spare part sales. The strong equipment sales in recent years have strengthened Raute's installed base, which supports growth outlook for services. Meanwhile, Raute can strengthen its installed base by modernizing competitors' equipment. In the long term, we see that digitalization supports efficiency in maintenance services and drives further growth.

4.2. Profitability

Our profitability estimates are based on the historical relationship between Raute's net sales and EBIT margin during Q1'13-Q2'18. In addition, we assume that the services EBIT margin is in the low double digits – slightly below Konecranes' and Glaston's past margins. We emphasize that Raute has not disclosed the profitability of its service business.

We estimate that Raute's EBIT amounts to EUR 12.7m (7.8% margin) in 2018, EUR 10.0m in 2019 (7.3% margin) and EUR 8.3m in 2020 (6.8% margin). The decline is driven by rapidly decreasing project sales during 2019 and 2020 combined with fixed costs. The high level of outsourced production gives Raute good means to quickly scale down its production.

We estimate that the increasing share of service sales supports Raute's profitability from 2020 onwards. In addition, we estimate that profitability within services improves slightly in the medium term.

4.3. Dividends

Although Raute does not have a fixed payout policy, we estimate that the company aims to maintain a stable or increasing dividend. Given the company's healthy balance sheet, Raute can maintain a high payout ratio for some time. However, the volatility of the underlying business also requires a safety buffer. As a result, we expect the payout ratio to eventually return to about 60% of earnings, which is close to the past six-year average.

5. Valuation

We initiate coverage of Raute with a HOLD rating and a target price of EUR 27.0 per share. We emphasise Raute's historical valuation and our DCF model. Raute's historical valuation suggests that the valuation upside is limited while our DCF model implies a value of EUR 28.0 per share. Meanwhile, we give less emphasis on peer multiples due to Raute's unique exposure to veneer-based investment cycles. While our estimates for 2019 are more reliable than for 2020, we see that the 2020 estimates better reflect Raute's net sales and profitability at a neutral stage of the investment cycle.

5.1. DCF model

Our DCF model implies a value of EUR 28.0 per share. The DCF value is subject to significant uncertainty due to the limited visibility past 2019 and the uncertainty regarding Raute's net sales over investment cycles. Our DCF model is particularly sensitive to the terminal EBIT margin. We assume a 6.5% terminal EBIT margin, which reflects our estimates of increasing technology service sales: We estimate that the service sales support Raute's EBIT margin and results in a more stable profitability overall. By comparison, Raute's median EBIT margin has amounted to 5.0% in 2007-2017. If we assumed a 5% terminal EBIT margin, that would yield a value of EUR 25.3 per share.

5.2. Multiple based valuation

Historical valuation

Due to limited analytical coverage, there exists no reliable historical consensus for Raute's 12m forward EV/EBIT. Instead, we rely on the 12m trailing EV/EBIT multiples. While EV mainly reflects expectations of future performance, we see that the median of trailing 12m EV/EBIT multiples is a useful indicator when measured over several years.

From a historical perspective, our estimates suggest that Raute's multiples have limited upside potential. In 2012-2017, Raute's 12m trailing EV/EBIT multiple amounted to 5.0x – 11.6x while the median was 7.0x and the mean was 7.8x. On our estimates, Raute's EV/EBIT amounts to 8.1x for 2019E and 9.7x for 2020E. We see that the high multiples for 2019E and 2020E are partly justified given the increasing share of service sales which reduce Raute's risk level. However, the premium for 2020E seems high, even when we considering the improved sales mix.

Peer valuation

Our peer group consists of Nordic companies which sell investment goods to cyclical industries, many of them to the mining sector. Most of the peers are listed in Finland.

In 2012-2017, the peer median trailing EV/EBIT multiple amounted to 13.7x, while Raute traded at a 49% discount relative to the median. We see that the discount reflects the volatility of Raute's business, which stems from the relatively narrow geographical sales distribution as well as the significant role of large project orders. In addition, Raute may be subject to a small cap discount.

The median estimates for Raute's peers suggest that their net sales and profitability will improve in 2018-2020. In contrast, we estimate that Raute's net sales and profitability will decline in 2018-2020. In our view, the diverging estimates reflect the different investment cycles in Raute's target market relative to its peers. We see that Raute's short to medium term outlook is driven by the European construction cycle.

On our estimates and EV/EBIT multiples, Raute trades at a 18% discount relative to peer group median in 2019E and at a 14% premium in 2020E. We see that, given the different stages in the cycles of Raute and its peers, the narrow discount and moderate premium are temporarily justified.

RAUTE PEER GROUP	Security identifier	MCAP MEUR	EBIT % 18E	EBIT % 19E	EBIT % 20E	EBITDA % 18E	EBITDA % 19E	EBITDA % 20E	ROCE % 18E	ROCE % 19E	ROCE % 20E
Glaston Oyj	GLA1V-FI	79	4.8	6.5	7.4	7.4	8.8	9.6			
Sandvik AB	SAND-SE	16518	19.4	19.1	19.3	23.8	23.7	23.8	21.9	21.1	20.7
Outotec Oyj	OTE1V-FI	882	4.3	7.0	8.0	7.5	9.9	10.6	7.2	12.8	15.4
Valmet Corp	VALMT-FI	269	6.4	7.4	7.8	8.5	9.6	9.9	14.7	17.3	17.5
Ponsse Oyj	PON1V-FI	793	10.7	11.7	12.0	13.2	14.4	14.5	27.6	27.5	25.9
Metso Oyj	METSO-FI	4161	11.2	11.7	12.0	13.1	13.4	13.6	16.6	18.6	19.5
Peer Group Average		3784	9.5	10.6	11.1	12.2	13.3	13.7	17.6	19.5	19.8
Peer Group Median		837	8.6	9.6	10.0	10.8	11.6	12.1	16.6	18.6	19.5
Raute (Evli est.)		117	7.8	7.3	6.8	9.4	9.3	9.0	29.9	22.2	17.8

Premium/discount to peer median

-9 % -23 % -32 % -14 % -20 % -26 % 80 % 19 % -9 %

	Security identifier	MCAP MEUR	ROE % 18E	ROE % 19E	ROE % 20E	DIV % 18E	DIV % 19E	DIV % 20E	P/E 18E	P/E 19E	P/E 20E
Glaston Oyj	GLA1V-FI	79	9	14	17	2.4	4.9	4.9	24.2x	14.3x	10.9x
Sandvik AB	SAND-SE	16518	25	22	21	3.0	3.3	3.6	12.7x	12.3x	11.6x
Outotec Oyj	OTE1V-FI	882	8	14	17	1.5	2.5	3.2	27.8x	14.4x	11.3x
Valmet Corp	VALMT-FI	269	16	18	18	3.4	3.9	4.3	18.6x	15.6x	14.3x
Ponsse Oyj	PON1V-FI	793	25	26	24	3.0	3.4	3.6	16.5x	13.8x	12.9x
Metso Oyj	METSO-FI	4161	17	19	20	4.0	4.1	4.3	18.3x	15.4x	13.7x
Peer Group Average		3784	16.6	18.8	19.2	2.9	3.7	4.0	19.7x	14.3x	12.5x
Peer Group Median		837	16.2	18.3	18.8	3.0	3.7	4.0	18.5x	14.4x	12.3x
Raute (Evli est.)		117	23.4	17.7	14.3	4.9	4.9	4.7	12.1x	14.7x	17.7x

Premium/discount to peer median

44 % -3 % -24 % 63 % 34 % 18 % -35 % 2 % 44 %

	Security identifier	MCAP MEUR	EV/S 18E	EV/S 19E	EV/S 20E	EV/EBITDA 18E	EV/EBITDA 19E	EV/EBITDA 20E	EV/EBIT 18E	EV/EBIT 19E	EV/EBIT 20E
Glaston Oyj	GLA1V-FI	79	0.7x	0.6x	0.6x	9.7x	7.1x	6.0x	15.0x	9.7x	7.8x
Sandvik AB	SAND-SE	16518	1.8x	1.7x	1.5x	7.6x	7.0x	6.4x	9.3x	8.7x	7.9x
Outotec Oyj	OTE1V-FI	882	0.7x	0.6x	0.5x	9.6x	6.3x	5.1x	16.7x	8.9x	6.8x
Valmet Corp	VALMT-FI	269	0.8x	0.7x	0.7x	9.5x	7.8x	7.1x	12.7x	10.1x	9.0x
Ponsse Oyj	PON1V-FI	793	1.3x	1.2x	1.1x	9.8x	8.3x	7.8x	12.0x	10.2x	9.4x
Metso Oyj	METSO-FI	4161	1.4x	1.2x	1.1x	10.6x	9.2x	8.3x	12.4x	10.6x	9.4x
Peer Group Average		3784	1.1x	1.0x	0.9x	9.4x	7.6x	6.8x	13.0x	9.7x	8.4x
Peer Group Median		837	1.0x	1.0x	0.9x	9.6x	7.4x	6.7x	12.6x	9.9x	8.4x
Raute (Evli est.)		117	0.5x	0.6x	0.7x	5.5x	6.4x	7.3x	6.6x	8.1x	9.7x

Premium/discount to peer median

-51 % -39 % -28 % -43 % -14 % 9 % -47 % -18 % 14 %

	Security identifier	MCAP MEUR	Sales growth 18E	Sales growth 19E	Sales growth 20E	Net debt / EBITDA 18E	Net debt / EBITDA 19E	Net debt / EBITDA 20E	Equity ratio % 18E	Equity ratio % 19E	Equity ratio % 20E
Glaston Oyj	GLA1V-FI	79	0.7%	11.8%	6.1%	0.0x	-0.2x	-0.3x	41.1	41.8	42.6
Sandvik AB	SAND-SE	16518	9.1%	3.6%	4.1%	0.3x	0.0x	-0.3x	51.2	55.7	59.1
Outotec Oyj	OTE1V-FI	882	11.9%	10.2%	8.5%	0.3x	-0.1x	-0.4x	31.6	31.9	32.5
Valmet Corp	VALMT-FI	269	4.2%	3.3%	3.1%	-0.4x	-0.7x	-0.9x	31.8	32.8	33.6
Ponsse Oyj	PON1V-FI	793	9.7%	4.3%	4.2%	0.2x	-0.1x	-0.2x	54.1	57.3	59.9
Metso Oyj	METSO-FI	4161	13.9%	11.3%	7.3%	0.3x	0.1x	0.0x	42.0	42.2	42.8
Peer Group Average		3784	8.2%	7.4%	5.6%	0.1x	-0.2x	-0.4x	41.9	43.6	45.1
Peer Group Median		837	9.4%	7.2%	5.1%	0.2x	-0.1x	-0.3x	41.5	42.0	42.7
Raute (Evli est.)		117	9.0%	-16.0%	-10.5%	-2.2x	-2.9x	-3.4x	46.6	51.9	55.0

Premium/discount to peer median

-5 % -322 % -304 % -1018 % 2886 % 1020 % 12 % 24 % 29 %

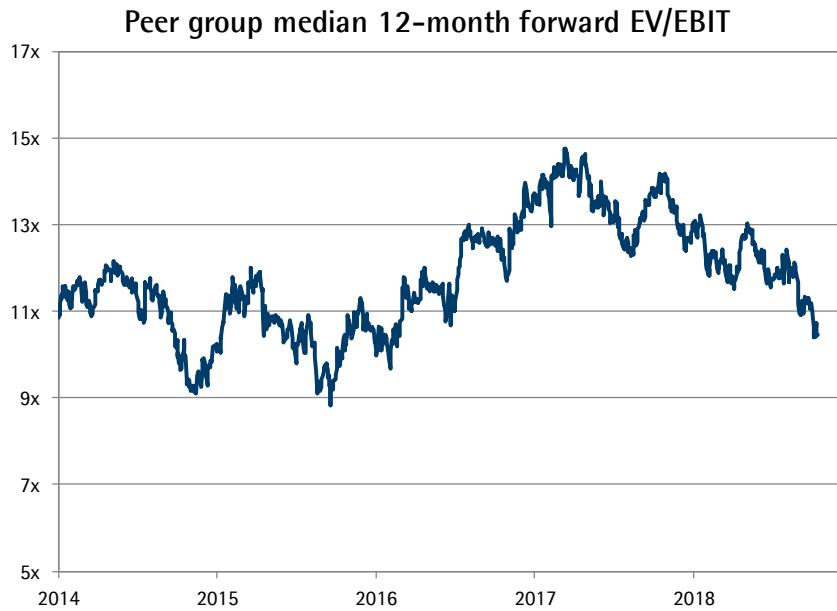
	Security identifier	MCAP MEUR	P/B 18E	P/B 19E	P/B 20E
Glaston Oyj	GLA1V-FI	79	2.1	1.9	1.8
Sandvik AB	SAND-SE	16518	2.9	2.5	2.2
Outotec Oyj	OTE1V-FI	882	2.2	2.0	1.8
Valmet Corp	VALMT-FI	269	2.9	2.7	2.5
Ponsse Oyj	PON1V-FI	793	3.9	3.3	2.9
Metso Oyj	METSO-FI	4161	3.0	2.8	2.6
Peer Group Average		3784	2.8	2.5	2.3
Peer Group Median		837	2.9	2.6	2.4
Raute (Evli est.)		117	2.7	2.5	2.5

Premium/discount to peer median

-8 % -2 % 6 %

Source: Factset, Evli Research

Updated on October 21st, 2018



Source: Factset, Evli Research

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VALUATION RESULTS	BASE CASE DETAILS	VALUATION ASSUMPTIONS	ASSUMPTIONS FOR WACC	
Current share price	27.60 PV of Free Cash Flow	52 Long-term growth, %	2.0 Risk-free interest rate, %	2.25
DCF share value	28.01 PV of Horizon value	43 WACC, %	9.6 Market risk premium, %	5.8
Share price potential, %	1.5 Unconsolidated equity	0 Spread, %	0.5 Debt risk premium, %	2.8
Maximum value	29.4 Marketable securities	31 Minimum WACC, %	9.1 Equity beta coefficient	1.35
Minimum value	26.8 Debt - dividend	-7 Maximum WACC, %	10.1 Target debt ratio, %	20
Horizon value, %	45.5 Value of stock	119 Nr of shares, Mn	4.2 Effective tax rate, %	20

DCF valuation, EURm	2017	2018E	2019E	2020E	2021E	2022E	2023E	2024E	2025E	2026E	2027E	Horizon
Net sales	149	162	136	122	126	131	135	139	143	146	149	152
<i>Sales growth, %</i>	<i>31.4</i>	<i>9.0</i>	<i>-16.0</i>	<i>-10.5</i>	<i>3.6</i>	<i>3.6</i>	<i>3.6</i>	<i>3.0</i>	<i>2.5</i>	<i>2.3</i>	<i>2.0</i>	<i>2.0</i>
Operating income (EBIT)	12	13	10	8	9	9	10	10	9	9	10	10
<i>EBIT margin, %</i>	<i>7.8</i>	<i>7.8</i>	<i>7.3</i>	<i>6.8</i>	<i>7.0</i>	<i>7.2</i>	<i>7.4</i>	<i>7.2</i>	<i>6.5</i>	<i>6.5</i>	<i>6.5</i>	<i>6.5</i>
+ Depreciation+amort.	3	2	3	3	3	3	3	3	3	3	3	
- Income taxes	-3	-3	-2	-2	-2	-2	-2	-2	-2	-2	-2	
- Change in NWC	6	0	0	0	0	0	0	0	0	0	0	
<i>NWC / Sales, %</i>	<i>-1.8</i>	<i>-1.7</i>	<i>-1.8</i>	<i>-1.9</i>	<i>-1.9</i>	<i>-1.8</i>	<i>-1.8</i>	<i>-1.8</i>	<i>-1.8</i>	<i>-1.8</i>	<i>-1.8</i>	
+ Change in other liabs	1	0	0	0	0	0	0	0	0	0	0	
- Capital Expenditure	-7	-3	-2	-2	-3	-4	-3	-3	-3	-3	-3	-4
<i>Investments / Sales, %</i>	<i>4.7</i>	<i>1.7</i>	<i>1.5</i>	<i>1.9</i>	<i>2.0</i>	<i>2.7</i>	<i>2.4</i>	<i>2.4</i>	<i>2.3</i>	<i>2.3</i>	<i>2.3</i>	<i>2.3</i>
- Other items	1	0	0	0	0	0	0	0	0	0	0	
= Unlevered Free CF (FCF)	13	10	8	7	7	7	8	8	7	7	8	101
= Discounted FCF (DFCF)		9	7	6	5	4	5	4	4	3	3	43
= DFCF min WACC		9	7	6	5	5	5	4	4	4	3	48
= DFCF max WACC		9	7	6	5	4	5	4	4	3	3	39

INTERIM FIGURES

EVLI ESTIMATES, EURm	2017Q1	2017Q2	2017Q3	2017Q4	2017	2018Q1	2018Q2	2018Q3E	2018Q4E	2018E	2019E	2020E
Net sales	37	35	37	40	149	35	44	43	40	162	136	122
EBITDA	3	2	5	4	14	3	4	4	4	15	13	11
<i>EBITDA margin (%)</i>	<i>9.0</i>	<i>5.6</i>	<i>12.9</i>	<i>10.5</i>	<i>9.6</i>	<i>9.7</i>	<i>8.7</i>	<i>9.6</i>	<i>9.6</i>	<i>9.4</i>	<i>9.3</i>	<i>9.0</i>
EBIT	3	1	4	3	12	3	3	4	3	13	10	8
<i>EBIT margin (%)</i>	<i>7.3</i>	<i>3.8</i>	<i>11.1</i>	<i>8.8</i>	<i>7.8</i>	<i>7.8</i>	<i>7.2</i>	<i>8.2</i>	<i>8.1</i>	<i>7.8</i>	<i>7.3</i>	<i>6.8</i>
Net financial items	0	0	0	0	0	0	0	0	0	0	0	0
Pre-tax profit	3	1	4	4	12	3	3	4	3	13	10	8
Tax	-1	0	-1	0	-2	-1	-1	-1	-1	-3	-2	-2
<i>Tax rate (%)</i>	<i>27.3</i>	<i>38.5</i>	<i>15.6</i>	<i>9.2</i>	<i>18.5</i>	<i>22.6</i>	<i>25.3</i>	<i>25.5</i>	<i>18.6</i>	<i>23.0</i>	<i>20.0</i>	<i>20.0</i>
Net profit	2	1	3	3	9	2	2	3	3	10	8	7
EPS	0.49	0.14	0.82	0.76	2.22	0.53	0.52	0.62	0.62	2.29	1.87	1.56
EPS adjusted (diluted no. of shares)	0.49	0.14	0.82	0.76	2.22	0.53	0.52	0.62	0.62	2.29	1.87	1.56
Dividend per share	0.00	0.00	0.00	0.00	1.25	0.00	0.00	0.00	0.00	1.35	1.35	1.30
SALES, EURm												
Project deliveries	27	24	23	26	99	25	31	30	28	113	85	68
Technology services	10	12	14	14	50	11	13	13	12	49	51	54
Total	37	35	37	40	149	35	44	43	40	162	136	122
SALES GROWTH, Y/Y %												
<i>Project deliveries</i>	<i>50.2</i>	<i>32.5</i>	<i>89.6</i>	<i>16.1</i>	<i>41.4</i>	<i>-7.2</i>	<i>30.4</i>	<i>32.6</i>	<i>6.6</i>	<i>14.5</i>	<i>-25.0</i>	<i>-19.8</i>
<i>Technology services</i>	<i>14.7</i>	<i>21.2</i>	<i>25.7</i>	<i>1.9</i>	<i>15.1</i>	<i>5.8</i>	<i>12.2</i>	<i>-9.8</i>	<i>-11.9</i>	<i>-2.1</i>	<i>5.0</i>	<i>5.0</i>
<i>Total</i>	<i>38.5</i>	<i>28.5</i>	<i>58.3</i>	<i>10.9</i>	<i>31.4</i>	<i>-3.6</i>	<i>24.4</i>	<i>16.1</i>	<i>0.3</i>	<i>9.0</i>	<i>-16.0</i>	<i>-10.5</i>
EBIT, EURm												
Project deliveries	0	0	0	0	0	0	0	2	2	5	6	5
Technology services	0	0	0	0	0	0	0	1	1	2	4	4
Total	3	1	4	3	12	3	3	0	0	6	0	0
Total	3	1	4	3	12	3	3	4	3	13	10	8
EBIT margin, %												
<i>Project deliveries</i>	<i>0.0</i>	<i>0.0</i>	<i>0.0</i>	<i>0.0</i>	<i>0.0</i>	<i>0.0</i>	<i>0.0</i>	<i>8.2</i>	<i>8.1</i>	<i>4.2</i>	<i>7.3</i>	<i>6.8</i>
<i>Technology services</i>	<i>0.0</i>	<i>0.0</i>	<i>0.0</i>	<i>0.0</i>	<i>0.0</i>	<i>0.0</i>	<i>0.0</i>	<i>8.2</i>	<i>8.1</i>	<i>4.2</i>	<i>7.3</i>	<i>6.8</i>
<i>Total</i>	<i>7.3</i>	<i>3.8</i>	<i>11.1</i>	<i>8.8</i>	<i>7.8</i>	<i>7.8</i>	<i>7.2</i>	<i>8.2</i>	<i>8.1</i>	<i>7.8</i>	<i>7.3</i>	<i>6.8</i>

INCOME STATEMENT, EURm	2013	2014	2015	2016	2017	2018E	2019E	2020E
Sales	83	94	127	113	149	162	136	122
<i>Sales growth (%)</i>	<i>-17.6</i>	<i>12.9</i>	<i>35.4</i>	<i>-11.1</i>	<i>31.4</i>	<i>9.0</i>	<i>-16.0</i>	<i>-10.5</i>
Costs	-79	-89	-116	-102	-134	-147	-123	-111
Reported EBITDA	4	5	12	11	14	15	13	11
Extraordinary items in EBITDA	0	0	0	0	0	0	0	0
<i>EBITDA margin (%)</i>	<i>4.8</i>	<i>4.9</i>	<i>9.1</i>	<i>9.6</i>	<i>9.6</i>	<i>9.4</i>	<i>9.3</i>	<i>9.0</i>
Depreciation	-2	-2	-2	-2	-3	-2	-3	-3
EBITA	2	3	9	9	12	13	10	8
Goodwill amortization / writedown	0	0	-1	0	0	0	0	0
Reported EBIT	2	3	8	9	12	13	10	8
<i>EBIT margin (%)</i>	<i>2.2</i>	<i>2.8</i>	<i>6.4</i>	<i>7.6</i>	<i>7.8</i>	<i>7.8</i>	<i>7.3</i>	<i>6.8</i>
Net financials	0	0	0	0	0	0	0	0
Pre-tax profit	2	3	8	9	12	13	10	8
Extraordinary items	0	0	0	0	0	0	0	0
Taxes	0	0	-1	-2	-2	-3	-2	-2
Minority shares	0	0	0	0	0	0	0	0
Net profit	1	2	7	7	9	10	8	7
BALANCE SHEET, EURm								
Assets								
Fixed assets	12	12	11	12	13	14	13	13
<i>% of sales</i>	<i>15</i>	<i>13</i>	<i>8</i>	<i>10</i>	<i>9</i>	<i>8</i>	<i>10</i>	<i>10</i>
Goodwill	0	0	0	0	1	1	1	1
<i>% of sales</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>
Inventory	5	8	10	10	11	12	10	9
<i>% of sales</i>	<i>6</i>	<i>8</i>	<i>8</i>	<i>9</i>	<i>7</i>	<i>7</i>	<i>7</i>	<i>7</i>
Receivables	19	28	35	24	30	33	28	25
<i>% of sales</i>	<i>22</i>	<i>30</i>	<i>27</i>	<i>22</i>	<i>20</i>	<i>21</i>	<i>21</i>	<i>21</i>
Liquid funds	13	4	7	24	31	34	36	37
<i>% of sales</i>	<i>15</i>	<i>5</i>	<i>5</i>	<i>21</i>	<i>21</i>	<i>21</i>	<i>27</i>	<i>31</i>
Total assets	49	53	62	70	87	94	89	85
Liabilities								
Equity	24	24	30	34	39	44	46	47
<i>% of sales</i>	<i>28</i>	<i>26</i>	<i>23</i>	<i>30</i>	<i>26</i>	<i>27</i>	<i>34</i>	<i>39</i>
Deferred taxes	0	0	0	0	0	0	0	0
<i>% of sales</i>	<i>1</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>
Interest bearing debt	6	3	2	3	1	0	0	0
<i>% of sales</i>	<i>7</i>	<i>3</i>	<i>1</i>	<i>3</i>	<i>1</i>	<i>0</i>	<i>0</i>	<i>0</i>
Non-interest bearing current liabilities	18	23	28	29	43	47	40	35
<i>% of sales</i>	<i>21</i>	<i>24</i>	<i>22</i>	<i>26</i>	<i>29</i>	<i>29</i>	<i>29</i>	<i>29</i>
Other interest free debt	0	0	0	1	1	1	1	1
<i>% of sales</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>
Total liabilities	49	53	62	70	87	94	89	85
CASH FLOW, EURm								
+ EBITDA	4	5	12	11	14	15	13	11
- Net financial items	0	0	0	0	0	0	0	0
- Taxes	0	-1	-1	0	-3	-3	-2	-2
- Increase in Net Working Capital	0	-7	-3	12	6	0	0	0
+/- Other	1	2	-1	-2	1	0	0	0
= Cash flow from operations	4	-2	7	21	18	12	10	9
- Capex	-3	-1	-2	-3	-7	-3	-2	-2
- Acquisitions	0	0	0	0	0	0	0	0
+ Divestments	0	0	0	0	0	0	0	0
= Net cash flow	0	-3	5	18	11	10	8	7
+/- Change in interest-bearing debt	-5	-3	-1	2	-2	-1	0	0
+/- New issues/buybacks	0	-1	0	1	0	0	0	0
- Paid dividend	-2	-1	-2	-3	-4	-5	-6	-6
+/- Change in loan receivables	0	0	0	0	1	0	0	0
Change in cash	-7	-8	3	17	7	3	3	1

KEY FIGURES	2014	2015	2016	2017	2018E	2019E	2020E
M-cap	29	58	70	123	117	117	117
Net debt	-2	-5	-21	-29	-34	-36	-37
Enterprise value	28	53	50	94	84	81	80
Sales	94	127	113	149	162	136	122
EBITDA	5	12	11	14	15	13	11
EBIT	3	8	9	12	13	10	8
Pre-tax	3	8	9	12	13	10	8
Earnings	2	7	7	9	10	8	7
Book value	24	30	34	39	44	46	47
Valuation multiples							
EV/sales	0.3	0.4	0.4	0.6	0.5	0.6	0.7
EV/EBITDA	6.0	4.6	4.6	6.6	5.5	6.4	7.3
EV/EBITA	10.6	5.6	5.8	8.1	6.6	8.1	9.7
EV/EBIT	10.6	6.5	5.8	8.1	6.6	8.1	9.7
EV/operating cash flow	-14.9	7.1	2.3	5.1	6.8	7.8	8.8
EV/cash earnings	6.7	5.2	5.3	8.0	6.9	7.6	8.6
P/E	12.2	8.6	10.0	13.1	12.1	14.7	17.7
P/E excl. goodwill	12.2	7.2	10.0	13.1	12.1	14.7	17.7
P/B	1.2	2.0	2.1	3.1	2.7	2.5	2.5
P/sales	0.3	0.5	0.6	0.8	0.7	0.9	1.0
P/CF	-15.8	7.8	3.3	6.7	9.5	11.3	12.9
Target EV/EBIT	0.0	0.0	0.0	0.0	6.4	7.9	9.3
Target P/E	0.0	0.0	0.0	0.0	11.8	14.4	17.3
Target P/B	0.0	0.0	0.0	0.0	2.6	2.5	2.4
Per share measures							
Number of shares	4,015	4,112	4,206	4,249	4,249	4,249	4,249
Number of shares (diluted)	4,015	4,112	4,206	4,249	4,249	4,249	4,249
EPS	0.60	1.64	1.68	2.22	2.29	1.87	1.56
EPS excl. goodwill	0.60	1.97	1.68	2.22	2.29	1.87	1.56
Cash EPS	1.03	2.49	2.21	2.76	2.87	2.51	2.18
Operating cash flow per share	-0.46	1.82	5.05	4.34	2.91	2.43	2.14
Capital employed per share	5.65	6.01	3.23	2.37	2.39	2.32	2.27
Book value per share	6.06	7.22	8.13	9.27	10.30	10.83	11.04
Book value excl. goodwill	6.06	7.22	8.13	9.02	10.06	10.58	10.79
Dividend per share	0.40	0.80	1.00	1.25	1.35	1.35	1.30
Dividend payout ratio, %	67.0	48.8	59.7	56.4	59.0	72.0	83.3
Dividend yield, %	5.5	5.7	6.0	4.3	4.9	4.9	4.7
Efficiency measures							
ROE	10.0	24.9	22.1	25.6	23.4	17.7	14.3
ROCE	9.2	27.8	25.0	29.7	29.9	22.2	17.8
Financial ratios							
Capex/sales, %	1.6	1.9	2.7	4.7	1.7	1.5	1.9
Capex/depreciation excl. goodwill,%	72.4	48.2	131.9	226.6	109.8	76.4	85.5
Net debt/EBITDA, book-weighted	-0.4	-0.4	-1.9	-2.1	-2.2	-2.9	-3.4
Debt/equity, market-weighted	0.1	0.0	0.0	0.0	0.0	0.0	0.0
Equity ratio, book-weighted	46.2	48.1	49.0	45.3	46.6	51.9	55.0
Gearing	-0.07	-0.17	-0.60	-0.74	-0.77	-0.79	-0.79
Number of employees, average	545	624	643	704	704	704	704
Sales per employee, EUR	172,514	203,970	175,894	211,101	230,027	193,182	172,915
EBIT per employee, EUR	4,778	13,010	13,330	16,477	17,980	14,140	11,774

COMPANY DESCRIPTION:

INVESTMENT CASE:

OWNERSHIP STRUCTURE	SHARES	EURm	%
Sundholm Göran Wilhelm	500,000	13.800	11.8%
Mandatum Life Unit-Linked	131,396	3.627	3.1%
Laakkonen Mikko Kalervo	119,919	3.310	2.8%
Suominen Pekka	110,429	3.048	2.6%
Siivonen Osku Pekka	104,179	2.875	2.5%
Kirmo Kaisa Marketta	104,021	2.871	2.4%
Suominen Tiina Sini-Maria	100,856	2.784	2.4%
Keskiaho Kaija Leena	84,716	2.338	2.0%
Mustakallio Mika Tapani	83,270	2.298	2.0%
Särkijärvi Anna Riitta	82,489	2.277	1.9%
Ten largest	1,421,275	39.227	33%
Residual	2,827,973	78.052	67%
Total	4,249,248	117.279	100%

EARNINGS CALENDAR

October 31, 2018	Q3 report
February 14, 2019	FY 2018 Results
March 03, 2019	Q1 report
July 31, 2019	Q2 report

OTHER EVENTS

COMPANY MISCELLANEOUS

CEO: Tapani Kiiski

CFO: Olli-Pekka Vanhanen

IR:

Tel:

DEFINITIONS

P/E	$\frac{\text{Price per share}}{\text{Earnings per share}}$	EPS	$\frac{\text{Profit before extraordinary items and taxes} - \text{income taxes} + \text{minority interest}}{\text{Number of shares}}$
P/Sales	$\frac{\text{Market cap}}{\text{Sales}}$	DPS	Dividend for the financial period per share
P/BV	$\frac{\text{Price per share}}{\text{Shareholders' equity} + \text{taxed provisions per share}}$	CEPS	$\frac{\text{Gross cash flow from operations}}{\text{Number of shares}}$
P/CF	$\frac{\text{Price per share}}{\text{Operating cash flow per share}}$	EV/Share	$\frac{\text{Enterprise value}}{\text{Number of shares}}$
EV (Enterprise value)	Market cap + net debt + minority interest at market value – share of associated companies at market value	Sales/Share	$\frac{\text{Sales}}{\text{Number of shares}}$
Net debt	Interest bearing debt – financial assets	EBITDA/Share	$\frac{\text{Earnings before interest, tax, depreciation and amortisation}}{\text{Number of shares}}$
EV/Sales	$\frac{\text{Enterprise value}}{\text{Sales}}$	EBIT/Share	$\frac{\text{Operating profit}}{\text{Number of shares}}$
EV/EBITDA	$\frac{\text{Enterprise value}}{\text{Earnings before interest, tax, depreciation and amortisation}}$	EAFI/Share	$\frac{\text{Pretax profit}}{\text{Number of shares}}$
EV/EBIT	$\frac{\text{Enterprise value}}{\text{Operating profit}}$	Capital employed/Share	$\frac{\text{Total assets} - \text{non interest bearing debt}}{\text{Number of shares}}$
Div yield, %	$\frac{\text{Dividend per share}}{\text{Price per share}}$	Total assets	Balance sheet total
Payout ratio, %	$\frac{\text{Total dividends}}{\text{Earnings before extraordinary items and taxes} - \text{income taxes} + \text{minority interest}}$	Interest coverage (x)	$\frac{\text{Operating profit}}{\text{Financial items}}$
Net cash/Share	$\frac{\text{Financial assets} - \text{interest bearing debt}}{\text{Number of shares}}$	Asset turnover (x)	$\frac{\text{Turnover}}{\text{Balance sheet total (average)}}$
ROA, %	$\frac{\text{Operating profit} + \text{financial income} + \text{extraordinary items}}{\text{Balance sheet total} - \text{interest free short term debt} - \text{long term advances received and accounts payable (average)}}$	Debt/Equity, %	$\frac{\text{Interest bearing debt}}{\text{Shareholders' equity} + \text{minority interest} + \text{taxed provisions}}$
ROCE, %	$\frac{\text{Profit before extraordinary items} + \text{interest expenses} + \text{other financial costs}}{\text{Balance sheet total} - \text{non interest bearing debt (average)}}$	Equity ratio, %	$\frac{\text{Shareholders' equity} + \text{minority interest} + \text{taxed provisions}}{\text{Total assets} - \text{interest free loans}}$
ROE, %	$\frac{\text{Profit before extraordinary items and taxes} - \text{income taxes}}{\text{Shareholders' equity} + \text{minority interest} + \text{taxed provisions (average)}}$	CAGR, %	Cumulative annual growth rate = Average growth per year

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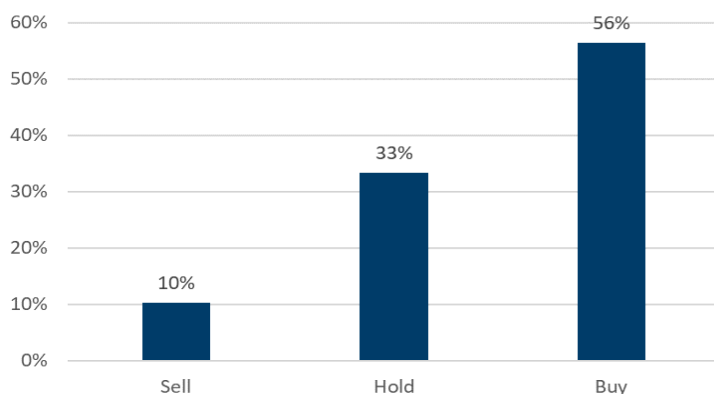
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Investment recommendations are defined as follows:

Target price compared to share price	Recommendation
< -10 %	SELL
-10 – (+10) %	HOLD
> 10 %	BUY

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Name(s) of the analyst(s): Pöyhönen

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