

# Agenda

Valmet roadshow presentation

1 Valmet in brief

2 Investment highlights

3 Financials

4 Conclusion



Valmet in brief



# Unique offering with process technology, automation and services



Mill and plant improvements, roll and workshop services, parts and fabrics, and life-cycle services



**Automation** 

Supplies and develops automation and information management systems, applications and services



Pulp and Energy

Technologies and solutions for pulp production, power generation, and biomass conversion



#### Paper

Technologies and solutions for board, tissue, and paper



# Key figures in 2017

**Orders received** EUR 3,272 million

**Net sales** EUR 3,058 million

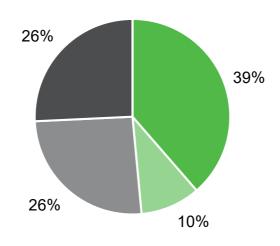
**Comparable EBITA** EUR 218 million

**Comparable EBITA margin** 7.1%

Order backlog EUR 2,458 million

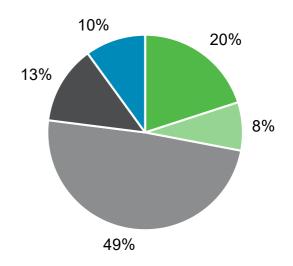
**Employees** 12,268

#### Net sales by business line



- Services
- Automation
- Pulp and Energy
- Paper

#### Net sales by area



- North America
- South America
- EMEA
- China
- Asia-Pacific



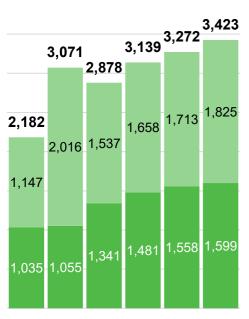
## Valmet's development

Comparable EBITA target 8-10%

Orders received (EUR million)<sup>1</sup>

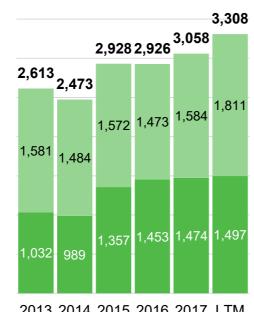
Net sales (EUR million)1 Comparable EBITA (EUR million)<sup>1</sup>

Comparable EBITA margin  $(\%)^{1}$ 



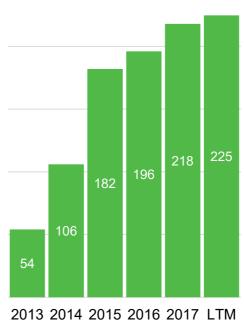


- Pulp and Energy, and Paper business lines
- Services and Automation business lines

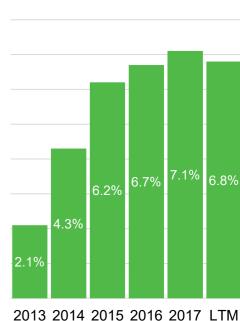


2013 2014 2015 2016 2017 LTM

- Pulp and Energy, and Paper business lines
- Services and Automation business lines



Comparable EBITA



Comparable EBITA margin



<sup>2013</sup> figures on carve-out basis LTM = Last twelve months (October 1, 2017 - September 30, 2018)

# Strong, global presence is a good platform for growth

More than 12,000 professionals at a total of 156 locations in 33 countries





# Process technology, services and automation

Valmet's unique offering differentiates the company from its competitors

#### **Paper**

- · Board, paper and tissue production lines
- Rebuilds
- Stand-alone products

#### Pulp

- Wood and pulp handling
- Fiber processing
- Recovery

#### **Energy**

- Heat and power generation
- Air emission control
- Biofuels

#### **Services**

- Spare parts and components
- Maintenance and shutdown services
- Outsourcing services
- Production consumables
- Process support and optimization



#### **Automation**

- Distributed Control Systems (DCS)
- Quality Management Systems (QMS)
- Analyzers and measurements
- · Industrial Internet solutions



# Significant, customer focused research and development work

#### **R&D** focus areas

- Advanced and competitive technologies and services
- Raw material, water and energy efficiency
- Promotion of renewable materials

16
research and development centers

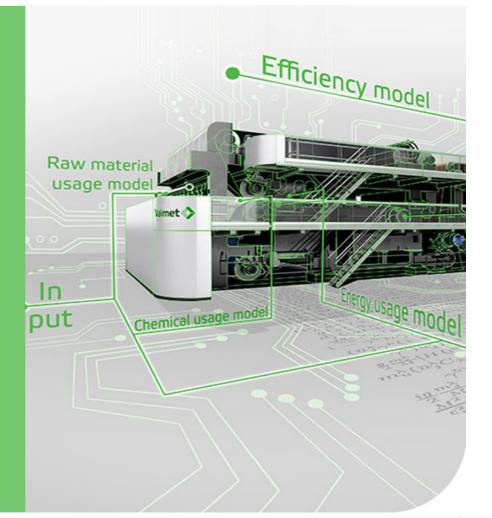


EUR **64** million R&D spending in 2017



~1,500 protected inventions



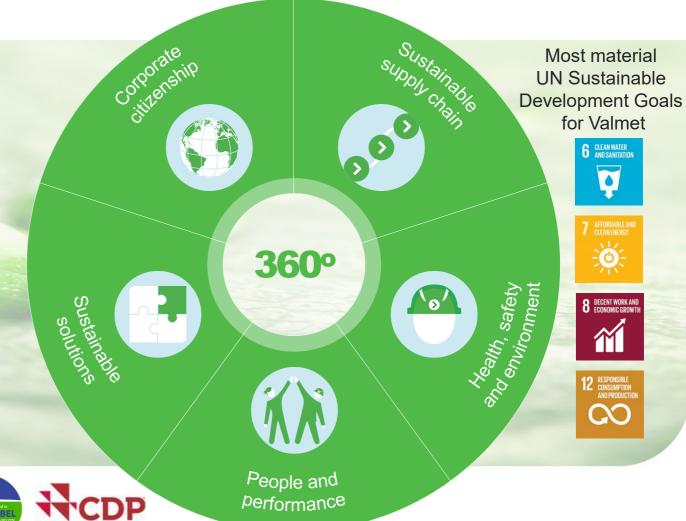




# Acknowledged leader in sustainability

360° approach to sustainability

- In Dow Jones Sustainability Index for the fifth consecutive year
- Received Silver Class 2018 Sustainability Award
- Achieved A- rating in CDP's climate program in 2017
- In Ethibel Sustainability Index Excellence Europe















# Financial targets

Growth **Profitability** 



Net sales for capital business to exceed market growth

Comparable EBITA: 8–10%

ROCE

• Comparable return on capital employed (pre-tax), ROCE<sup>1</sup>: 15–20%

Dividend policy

Dividend payout at least 50% of net profit



ROCE (pre-tax) = (profit before taxes + interests and other financial expenses) / (balance sheet total - non-interest-bearing liabilities)



Investment highlights



# Investment highlights

- 1 Strong position in the growing market of converting renewables
- Widest offering combining process technology, services and automation in a unique way
- 3 Large stable business offering growth and profitability
- 4 Strong capital business with high market share and flexible cost structure
- 5 Systematically building the future







# Strong position in the growing market of converting renewables







# Widest offering combining process technology, services and automation in a unique way

#### **Paper**

- Board, paper and tissue production lines
- Rebuilds
- Stand-alone products

#### Pulp

- Wood and pulp handling
- Fiber processing
- Recovery

#### Energy

- Heat and power generation
- Air emission control
- Biofuels

#### Services

- Spare parts and components
- Maintenance and shutdown services
- Outsourcing services
- Production consumables
- Process support and optimization



#### **Automation**

- Distributed Control Systems (DCS)
- Quality Management Systems (QMS)
- Analyzers and measurements
- Industrial Internet solutions





# Large stable business offering growth and profitability



#### **Services**

- 16% market share offers room for growth
- Wide offering to support customers' all service needs
- Opportunities to win new customers and increase share of wallet with existing customers

#### **Automation**

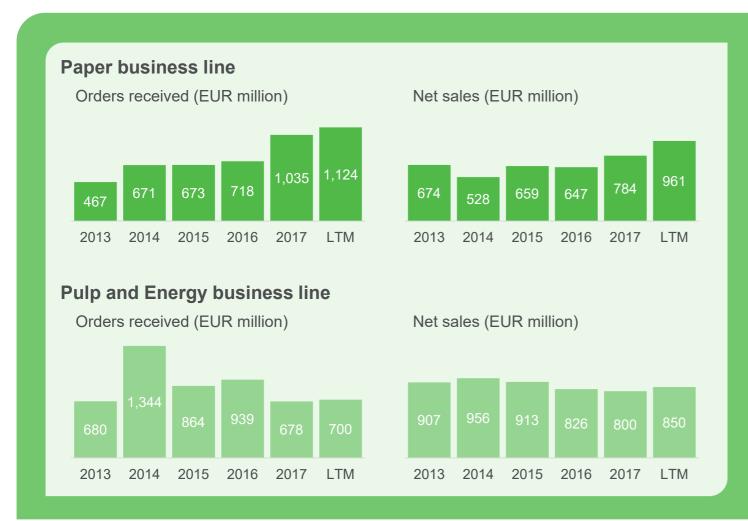
- Strong as a stand-alone business as well as packaged with Valmet's equipment
- Growth possibilities through replacing competitors' installed base, entering new industries and capturing Valmet synergies
- Lead the market through Industrial Internet offering



LTM = Last twelve months (October 1, 2017 - September 30, 2018)



# Strong capital business with high market share and flexible cost structure



#### **Market share**

High market share in all businesses

Board and paper	Tissue	Pulp	Energy
~40%	~35%	~40%	~20%

#### **Flexibility**

- Low capacity cost provides resilience to market fluctuations
- Capacity costs:

	H2/2017-H1/2018:	2015:
Paper	<b>29%</b> of net sales	<b>41%</b> of net sales
	EUR <b>273</b> million	EUR <b>270</b> million
Dula		
Dula	H2/2017-H1/2018:	2015:
Pulp and	H2/2017-H1/2018: 25% of net sales	2015: 24% of net sales

LTM = Last twelve months (October 1, 2017 - September 30, 2018)





# Systematically building the future

# Customer

# **Technology**

# Process

# People

- Shared Journey Forward: a unified and unique way to serve
- · Add value to customers through Industrial Internet solutions
- Ensure strong market position in capital business

#### · Develop new products and technologies

- Improve product cost competitiveness
- Lead the market through Industrial Internet offering
- Investing in new ERP and other new business platforms
- Continue to improve project management and project execution
- Continued focus on sustainability
- Continue to improve safety and lower LTIF
- Continuous training of employees, e.g. Sales Journey and Innovation Pathways training programs
- · Building capabilities globally



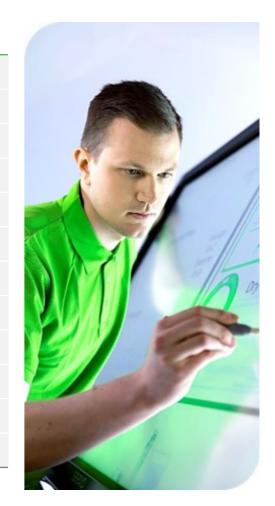


# Financials



# Key figures

EUR million	Q3/2018	Q3/2017	Change	Q1-Q3/2018	Q1-Q3/2017	Change
Orders received	940	743	27%	2,696	2,544	6%
Order backlog <sup>1</sup>	2,791	2,720	3%	2,791	2,720	3%
Net sales	765	715	7%	2,340	2,091	12%
Comparable EBITA	61	56	10%	144	138	5%
% of net sales	8.0%	7.8%		6.2%	6.6%	
EBITA	55	49	12%	131	133	-1%
Operating profit (EBIT)	48	41	16%	109	109	0%
% of net sales	6.3%	5.8%		4.7%	5.2%	
Earnings per share, EUR	0.23	0.18	26%	0.52	0.48	8%
Return on capital employed (ROCE) before taxes <sup>2</sup>				13%	12%	
Cash flow provided by operating activities	119	78	52%	141	203	-31%
Gearing <sup>1</sup>				-11%	-3%	



Items affecting comparability: EUR -6 million in Q3/2018 (EUR -6 million in Q3/2017), EUR -13 million in Q1–Q3/2018 (EUR -5 million in Q1–Q3/2017)

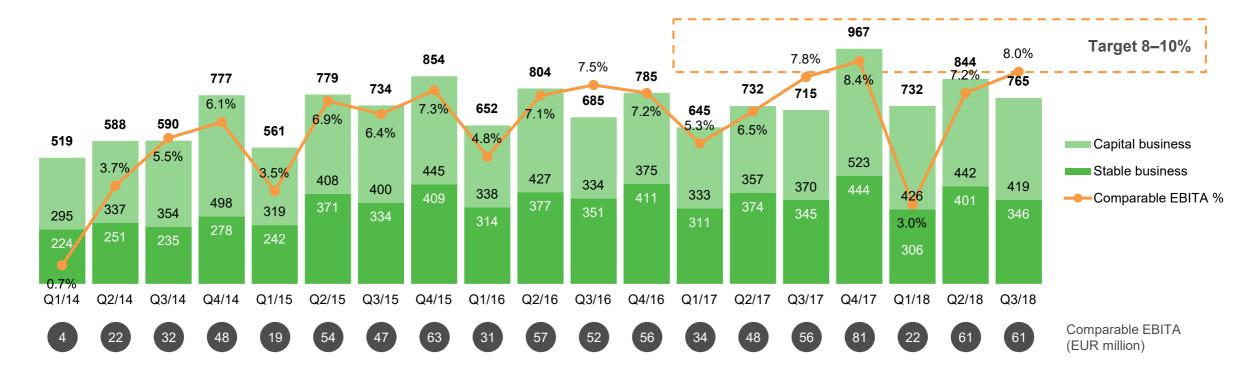


<sup>1)</sup> At the end of period

<sup>2)</sup> Annualized. In the calculation of 2017 figures, non-restated data points from 2016 have been used.

# Comparable EBITA margin development

Net sales and Comparable EBITA (EUR million and %)

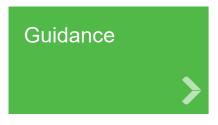


- Net sales and Comparable EBITA increased compared with Q3/2017
  - Profitability improved due to higher net sales



### Guidance and short-term market outlook

#### Guidance for 2018 (as announced on July 17, 2018)



Valmet estimates that net sales in 2018 will increase in comparison with 2017 (EUR 3,058 million) and Comparable EBITA in 2018 will increase in comparison with 2017 (EUR 218 million).

#### Short-term market outlook

		Q4/2017	Q1/2018	Q2/2018	Q3/2018
Services		Good	Good	Good	Good
Automation		Good	Good	Good	Good
Pulp and Energy	Pulp	Weak	Weak	Weak	Satisfactory
	Energy	Satisfactory	Satisfactory	Satisfactory	Satisfactory
Paper	Board and Paper	Good	Good	Good	Good
	Tissue	Good	Good	Good	Good

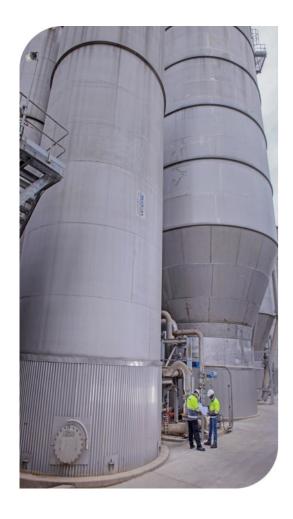
The short-term market outlook is based on customer activity (50%) and Valmet's capacity utilization (50%) and is given for the next six months from the end of the respective quarter. The scale is 'weak-satisfactory-good'.



# Conclusion



## Conclusion



- Strong position in the growing market of converting renewables
- Widest offering combining process technology, services and automation in a unique way
- 3 Large stable business offering growth and profitability
- 4 Strong capital business with high market share and flexible cost structure
- 5 Systematically building the future



# Important notice

It should be noted that certain statements herein which are not historical facts, including, without limitation, those regarding expectations for general economic development and the market situation, expectations for growth, profitability and investment willingness, expectations for company development, growth and profitability and the realization of synergy benefits and cost savings, and statements preceded by "anticipates", "believes", "estimates", "expects", "foresees" or similar expressions, are forward-looking statements. Since these statements are based on current decisions and plans, estimates and projections, they involve risks and uncertainties which may cause the actual results to materially differ from the results currently expressed. Such factors include, but are not limited to:

- 1) general economic conditions, including fluctuations in exchange rates and interest levels which influence the operating environment and profitability of customers of the company or economic growth in the company's principal geographic markets.
- 2) industry conditions, intensity of competition situation, especially potential introduction of significant technological solutions developed by competitors, financial condition of the customers and the competitors of the company,
- 3) the company's own operating factors, such as the success of production, product development and project management and the efficiencies therein including continuous development and improvement
- 4) the success of pending and future acquisitions and restructuring.



# Appendix

- **Financials**
- Focus areas and actions
- 3 Area development
- Shareholders, share price development and sustainability
- Strategy and offering
- Management

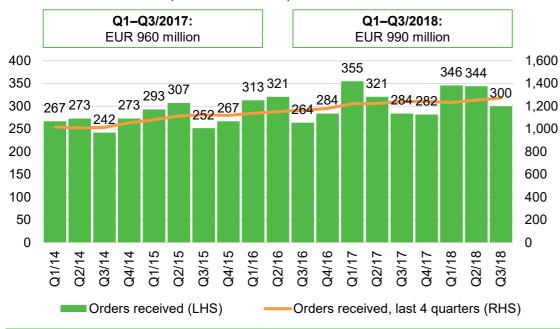


# Appendix Financials

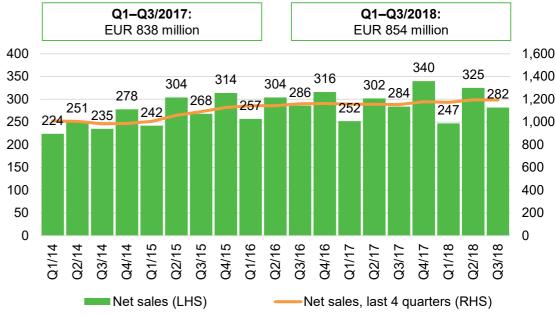


# Services: Orders received increased and net sales remained at the previous years' level

Orders received (EUR million)



Net sales (EUR million)



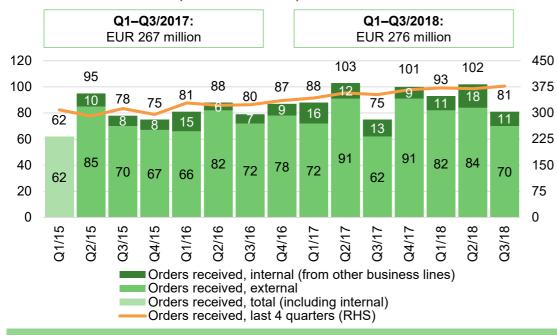
- Orders received increased compared with Q3/2017
  - Orders received increased in North America, China and EMEA, remained at the previous year's level in Asia-Pacific and decreased in South America
  - Orders received increased in Rolls, Performance Parts, Fabrics, and Mill Improvements and decreased in Energy and Environmental
- · Net sales remained at the previous year's level



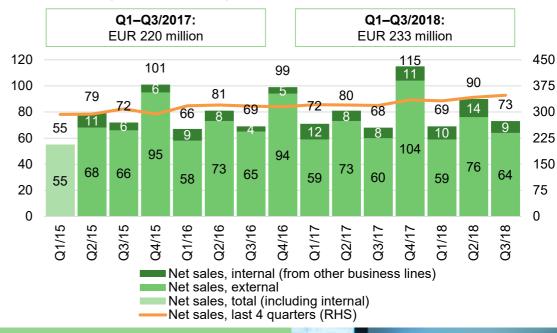


### Automation<sup>1</sup>: Orders received and net sales increased

#### Orders received<sup>2</sup> (EUR million)



#### Net sales<sup>2</sup> (EUR million)



- Orders received increased compared with Q3/2017
  - Orders received increased in China, Asia-Pacific and North America, remained at the previous year's level in EMEA and decreased in South America
  - Orders received increased in Energy and Process and remained at the previous year's level in Pulp and Paper
- Net sales increased compared with Q3/2017



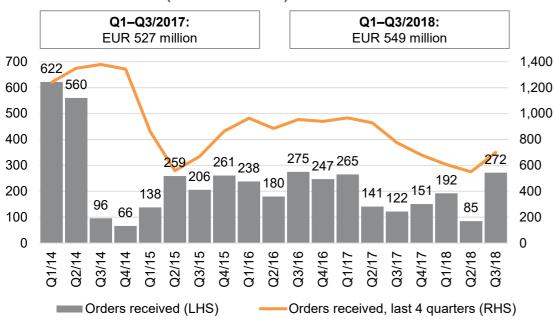
Q1/2015 orders received and the underlying figures for 'Orders received, last 4 quarters' and 'Net sales, last 4 quarters' are calculated based on Metso's reported figures and pro forma figures excluding Process Automation Systems and are therefore indicative only.



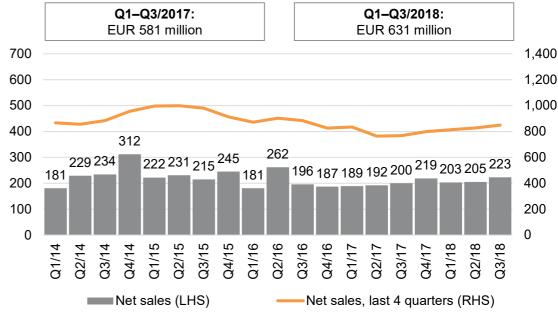
Comments refer to orders received and net sales including also internal orders received and net sales.

# Pulp and Energy: Orders received and net sales increased

#### Orders received (EUR million)



#### Net sales (EUR million)



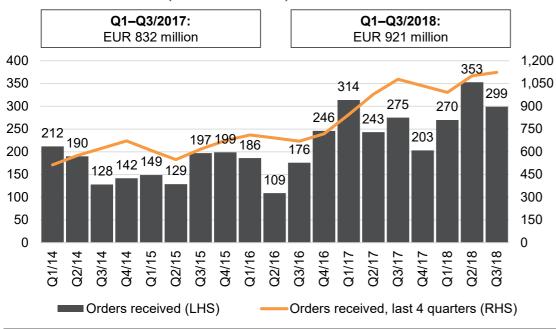
- Orders received increased compared with Q3/2017
  - Orders received increased in China, North America, Asia-Pacific and EMEA and decreased in South America
  - Orders received increased in Energy and decreased in Pulp
  - Approximately EUR 100 million of marine scrubber orders received in Q3/2018
- Net sales increased compared with Q3/2017



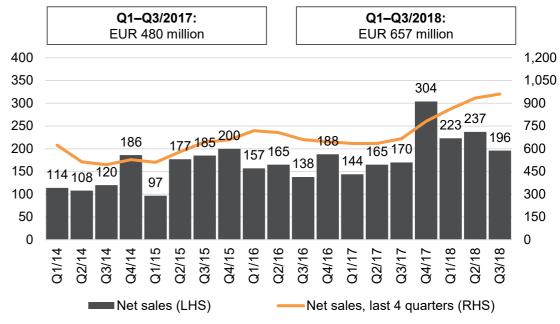


# Paper: Orders received and net sales increased

#### Orders received (EUR million)



#### Net sales (EUR million)



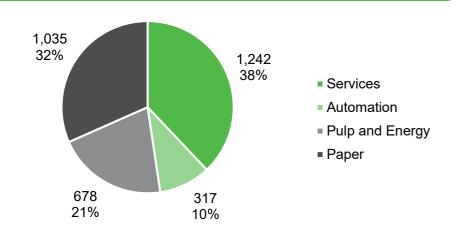
- Orders received increased compared with Q3/2017
  - Orders received increased in South America, Asia-Pacific and North America and decreased in China and EMEA
  - Orders received increased in Tissue and decreased in Board and Paper
- Net sales increased compared with Q3/2017

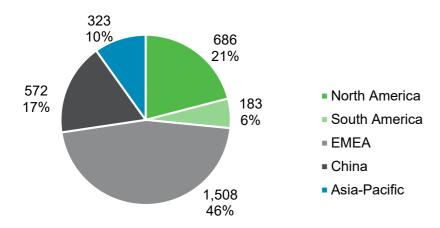




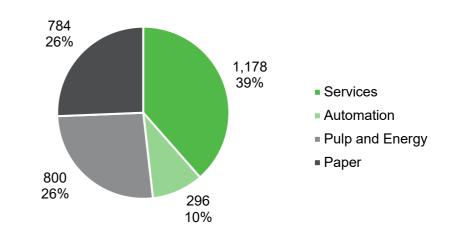
# Orders received and net sales split in 2017

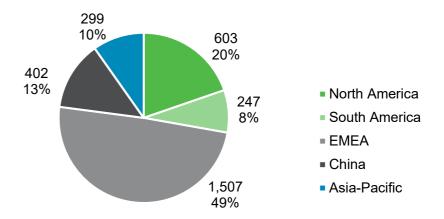
#### Orders received EUR million and % of total





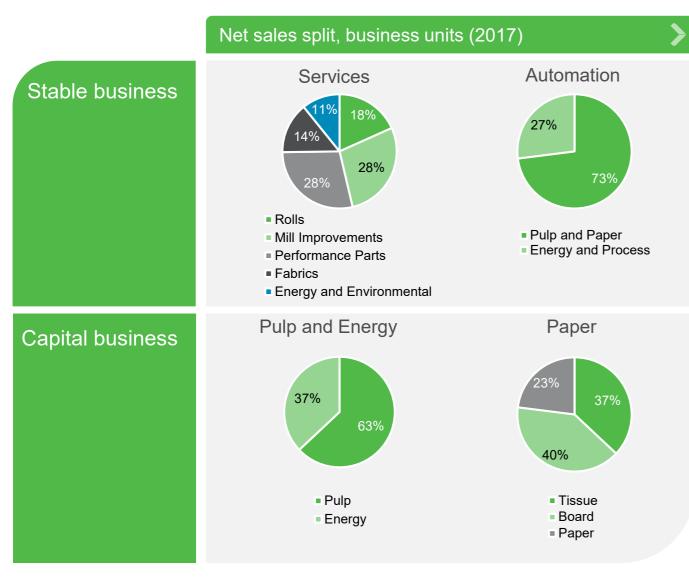
#### Net sales EUR million and % of total



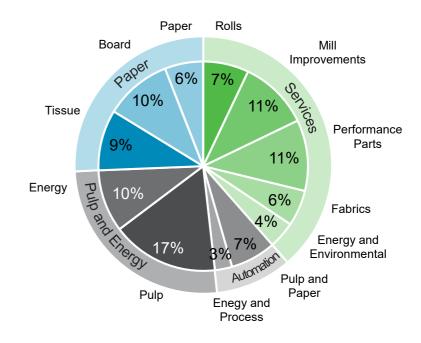




# Net sales split by business unit



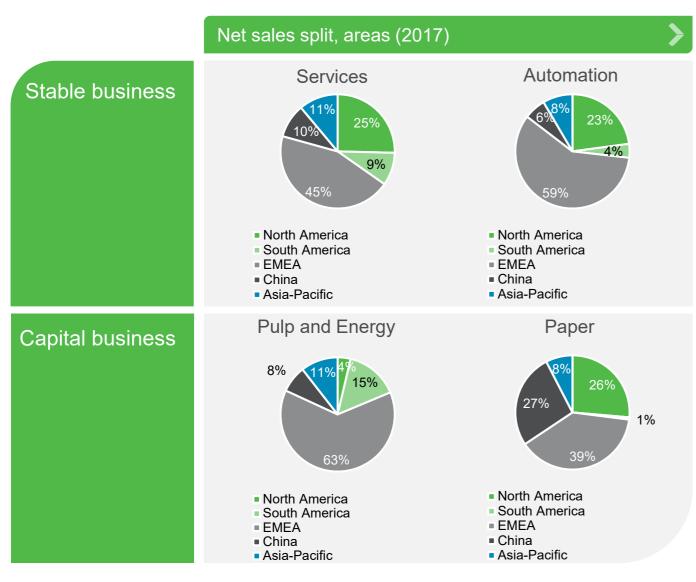
#### Net sales split, Valmet (2017)



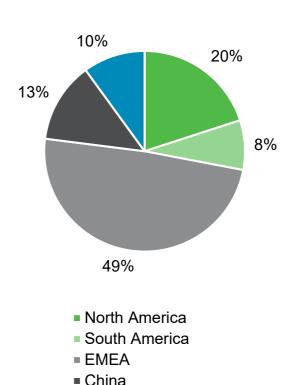


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## Net sales split by area



#### Net sales split, Valmet (2017)



Asia-Pacific



## Announced orders in H1/2018

Date	Booked quarter	Description	Business line	Country	Value
Jan 4	Q3	Anti-surge and load-sharing control	Automation	Russia	Not disclosed. <sup>1</sup>
Jan 17	Q4	OptiConcept M board production line	Paper	USA	Not disclosed. The value of an order of this type is typically around EUR 40-50 million.
Jan 25	Q1	Multifuel boiler and a flue gas treatment plant	Pulp and Energy	Finland	Around EUR 70 million
Jan 29	Q4	Mill waste-fired boiler plant	Pulp and Energy	China	Not disclosed.
Jan 30	Q4	Online measurements, consistency transmitters and analyzers	Automation	Sweden	Not disclosed. <sup>1</sup>
Feb 2	Q1	Flue gas condensation system	Pulp and Energy	Finland	Not disclosed.
Feb 8	Q4	Automation system to a board mill	Automation	Finland	Not disclosed. <sup>1</sup>
Feb 12	Q4	Cooking plant rebuild and brown stock washing equipment	Pulp and Energy	Sweden	Not disclosed.
Feb 13	Q1	Wet end rebuild to a paper machine	Paper	Austria	Not disclosed. The value of an order of this type is typically around EUR 10-20 million.
Feb 22	Q1	Repeat order of three winders	Paper	China	Not disclosed. The value of an order of this type is typically around EUR 10-20 million.
Mar 6	Q4	Automation upgrade to a cruise ship	Automation		Not disclosed. <sup>1</sup>
Mar 19	Q1, Q3	Two containerboard machines with automation systems	Paper	China	Not disclosed. The value of an order of this type is typically around EUR 90-110 million.
Mar 20	Q1	Linerboard production line	Paper	USA	Not disclosed.
Mar 22	Q4	Baling line	Paper	Finland	Not disclosed.
Mar 26	Q4	Warp control system	Automation	Poland	Not disclosed. <sup>1</sup>
Mar 29	Q1	Multifuel boiler	Pulp and Energy	Turkey	Not disclosed.
Apr 5	Q1	Automation to a board machine	Automation	Indonesia	Not disclosed. <sup>1</sup>
Apr 9	Q1	Three quality control systems with optical sensors	Automation	Italy	Not disclosed. <sup>1</sup>
Apr 30	Q1	Valmet DNA automation system	Automation	Indonesia	Not disclosed. <sup>1</sup>
May 9	Q2	Containerboard making line and automation	Paper	Germany	Not disclosed. The total value of an order of this type is typically around EUR 70-90 million.
May 15	Q2	Containerboard making line	Paper	China	Not disclosed. The total value of an order of this type and scope is typically around EUR 25-35
					million.
Jun 6	Q2	Cooking plant to a pulp mill	Pulp and Energy	Belgium	Not disclosed.
Jun 7	Q1	Multifuel power boiler and a flue gas cleaning system	Pulp and Energy	Japan	Not disclosed. The value of this kind of order is typically around EUR 40 million.
Jun 13	Q2	Large automation order for bio heating plant	Automation	Finland	The value of the order is approximately EUR 2 million.
Jun 20	Q2	Off-machine multinip calender	Paper	Germany	Not disclosed. The total value of an order of this type is typically around EUR 20-30 million.



<sup>1)</sup> Typically the order value of automation system deliveries ranges from below EUR 1 million to EUR 3 million

## Announced orders in H2/2018

Date	Booked quarter	Description	Business line	Country	Value
Jul 11 Jul 13	Q2 Q2	Valmet Pulp Analyzer and Valmet Kappa Analyzer Advantage DCT 200 tissue line	Automation Paper	China Turkey	Not disclosed. <sup>1</sup> Not disclosed.
Aug 6 Aug 7 Aug 9	Q2 Q2 Q2	Advantage DCT100HS tissue production line and automation Advantage DCT 200 tissue line BCTMP plant conversion, slab press and conveyor systems	Paper Paper Pulp and Energy, Services	Argentina Argentina Estonia	Not disclosed. Not disclosed. Not disclosed. A project of this size and scope is typically valued at EUR 5-10 million.
Aug 13 Aug 14 Aug 22 Aug 27	Q2 Q2 Q2 Q3	Recovery boiler and surrounding systems to a pulp mill OptiConcept M containerboard making line Nonwoven bonding system Extensive paper machine grade conversion rebuild	Pulp and Energy Paper Paper Paper	Sweden China China Italy	Not disclosed. The value of this kind of order is typically above EUR 10 million.  Not disclosed. The total value of an order of this type is typically around EUR 30-40 million.  Not disclosed.  Not disclosed. The total value an order of this type is typically around EUR 40-60 million.
Sep 4	Q3	Extensive information management system	Automation	Finland	Not disclosed. <sup>1</sup>
Sep 11 Sep 13	Q2 Q1	Continuous steam explosion system for production of black pellets Automation technology to two new power plants	Pulp and Energy Automation	France Lithuania and Spain	Not disclosed.  Not disclosed. <sup>1</sup>
Sep 17 Sep 20 Sep 24 Oct 1 Oct 3 Oct 22 Oct 22 Nov 12 Nov 15	Q2 Q1, Q2 Q3 Q3 Q3 Q3 Q3 Q2 Q4 Q4	Automation and safety system to a gas compression station Web monitoring systems for two paper machines Winding technology Automation system for coal washing Biomass boiler Biomass pretreatment system Automation solution for a biopower plant Flue gas cleaning and heat recovery plant Biomass-fired boiler plant	Automation Automation Paper Automation Pulp and Energy Pulp and Energy Automation Pulp and Energy Pulp and Energy Pulp and Energy	Finland China Germany Russia Spain Romania Finland Finland Finland	Not disclosed. <sup>1</sup> Not disclosed. <sup>1</sup> Not disclosed. The total value of an order of this type is typically around EUR 5-10 million. Not disclosed. <sup>1</sup> Not disclosed. Not disclosed. Not disclosed. Not disclosed. Not disclosed. The total value of an order of this type is typically between EUR 2-10 million. Not disclosed.



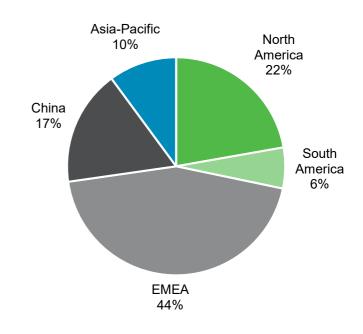
<sup>1)</sup> Typically the order value of automation system deliveries ranges from below EUR 1 million to EUR 3 million

# Orders received increased to EUR 940 million in Q3/2018

### Orders received (EUR million)

#### 1,400 3,500 1,200 3,000 1,000 2,500 800 2,000 600 1,500 1,101 1,005 1,023 890 857 865 793 803 788 1,000 400 781 725 743 727 580 466 480 200 500 Q2/15 23/15 24/15 22/16 Q3/16 Q4/16 Q2/18 Q4/14 Q3/17 Q4/17 Orders received (LHS) Last 4 quarters (RHS)

### Orders received in Q1–Q3/2018 by area

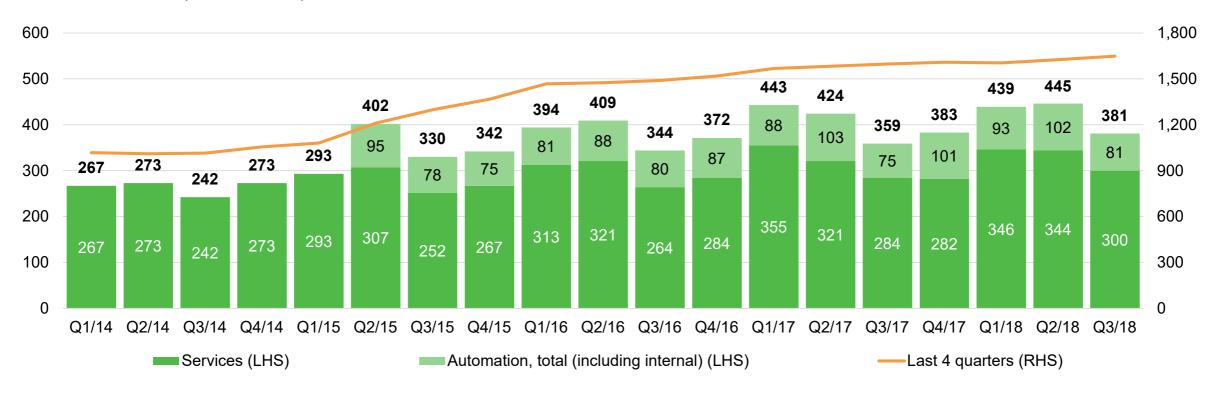


- In stable business, orders received increased to EUR 381 million in Q3/2018
- In capital business, orders received increased to EUR 570 million in Q3/2018
- EMEA and North America accounted for 67% of orders received during first three quarters of the year



# Stable business orders received totaled EUR 1,649 million during the last four quarters

Orders received (EUR million) in stable business<sup>1</sup>



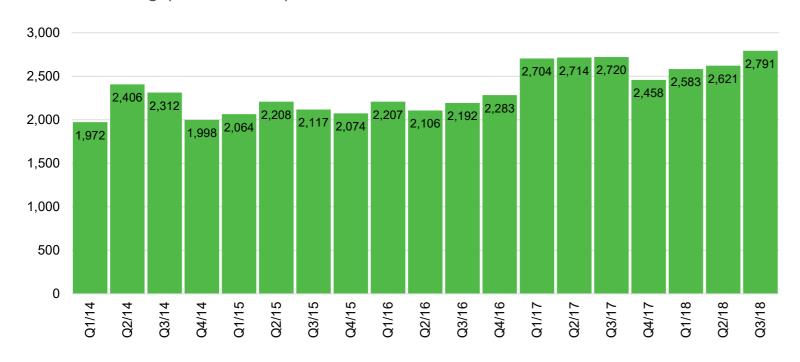
In Q3/2018, total orders received in stable business increased



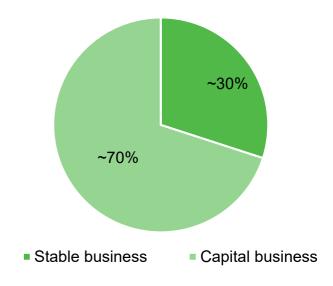
<sup>1)</sup> Including internal orders received for the Automation business line.

# Order backlog at EUR 2,791 million at the end of Q3/2018

### Order backlog (EUR million)



### Structure of order backlog

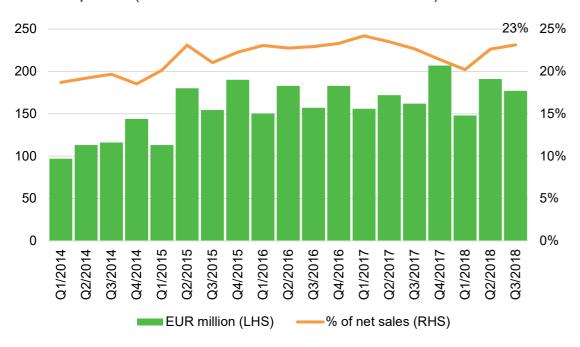


- Order backlog was EUR 170 million higher than at the end of Q2/2018
- Approximately 30% of the order backlog relates to stable business

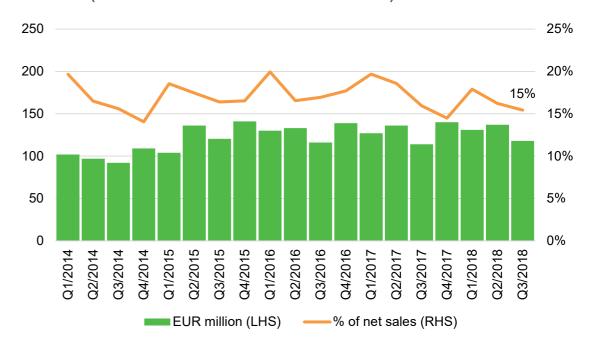


# Gross profit and SG&A development

### Gross profit (EUR million and % of net sales)



### SG&A (EUR million and % of net sales)

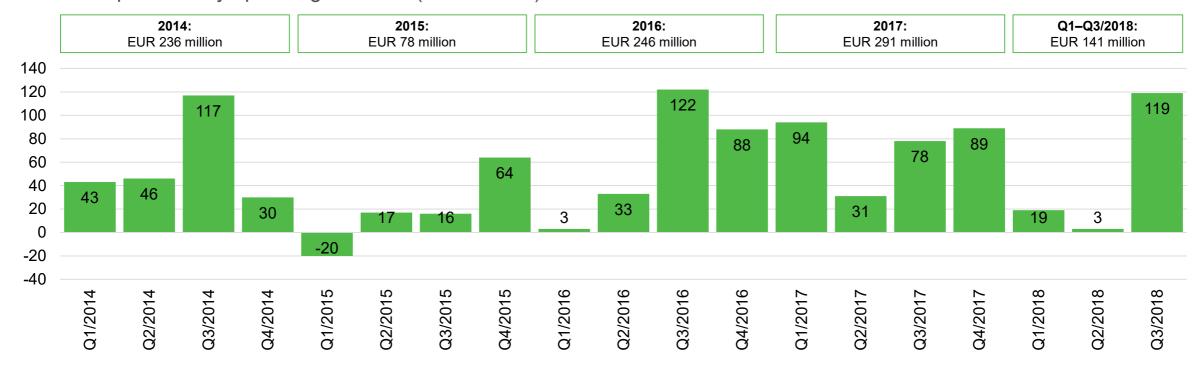


- Gross profit was 23% of net sales (23% in Q3/2017)
  - Capital business had a higher share of net sales in Q3/2018
- Selling, general & administrative (SG&A) expenses increased by EUR 4 million
  - SG&A was 15% of net sales (16% in Q3/2017)



# Cash flow provided by operating activities

Cash flow provided by operating activities (EUR million)



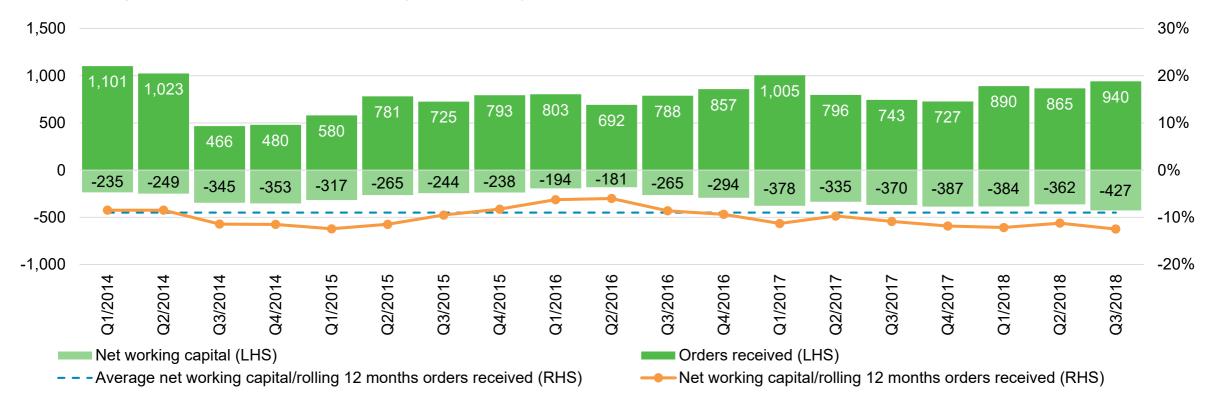
- Change in net working capital<sup>1</sup> EUR 65 million in Q3/2018
- Cash flow provided by operating activities EUR 119 million in Q3/2018
- CAPEX EUR 21 million in Q3/2018



<sup>1)</sup> Change in net working capital in the consolidated statement of cash flows.

# Net working capital at -12% of rolling 12 months orders received

Net working capital and orders received (EUR million)



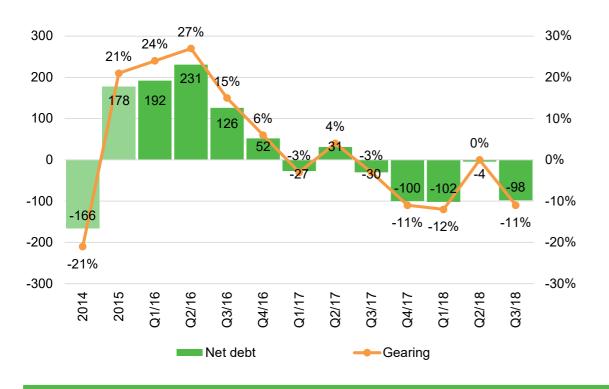
• Net working capital EUR -427 million, which equals -12% of rolling 12 months orders received

Net working capital excluding non-cash net working capital impact from dividend liability.

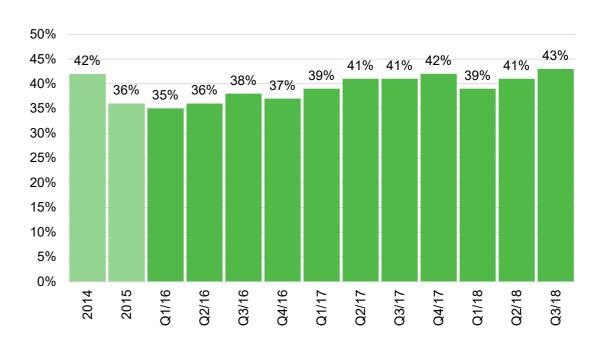


# Net debt and gearing decreased compared with Q3/2017

Net debt (EUR million) and gearing (%)



Equity to assets ratio (%)



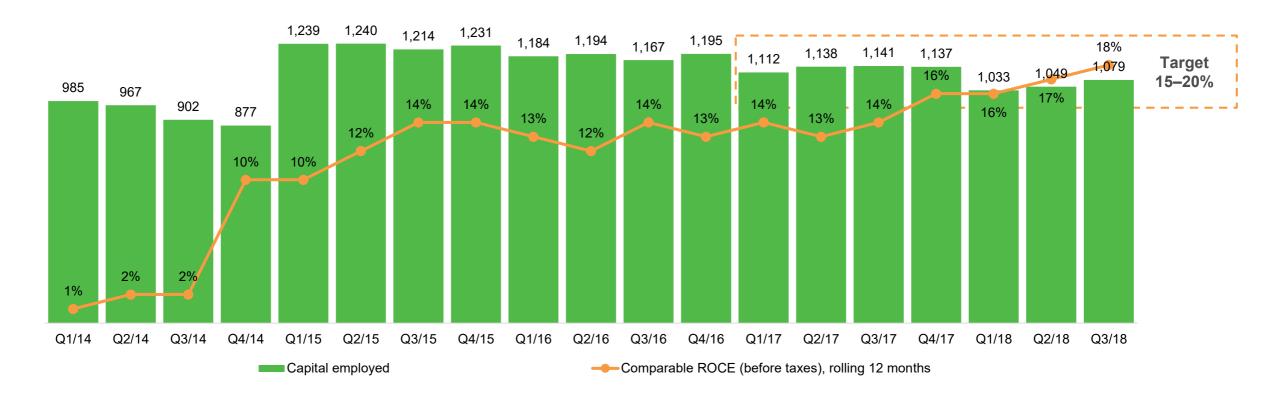
- Gearing (-11%) and net debt (EUR -98 million) decreased compared with both Q2/2018 and Q3/2017
- Equity to assets ratio increased compared with both Q2/2018 and Q3/2017

Automation acquisition was completed on April 1, 2015.



# Capital employed and Comparable ROCE

Capital employed (EUR million) and Comparable return on capital employed (ROCE), before taxes<sup>1</sup> (%)

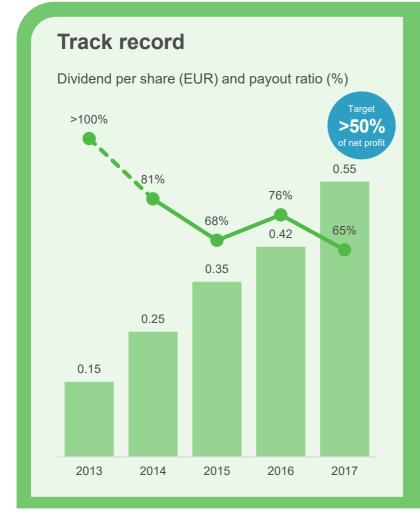


Target for Comparable return on capital employed (ROCE): 15–20%

<sup>)</sup> Rolling 12 months. Carve-out figures for 2013 have been used in the calculation of Q1-Q3/2014 figures. In the calculation of 2017 figures, data points from 2016 that have not been restated have been used.



## Dividend and balance sheet







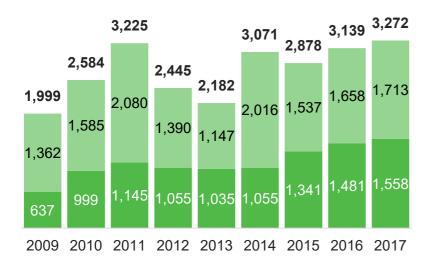
- Net debt was EUR -98 million at the end Q3/2018
- Back-up credit facilities:
  - EUR 250 million of committed facilities
  - EUR 200 million of uncommitted facilities
- Valmet needs to have a strong balance sheet to be able to participate in large projects and to cope with swings in market activity



# Profitability and orders received development, annual

Orders received (EUR million)<sup>1</sup>

Net sales and Comparable EBITA (EUR million)<sup>1</sup>



- Pulp and Energy, and Paper business lines
- Services and Automation business lines



- Timing of large projects has had an impact on the level of net sales
- Good stimulus-driven demand in China 2009–2010 supported orders
- The paper machine market has shifted to smaller and lower-cost machines
- In 2013, the power generation market was affected by low-cost shale gas and political and economical uncertainty in Europe
- From 2014 onwards profitability has improved as a result of cost savings, implementation of Must-Wins and the acquisition of Automation
- Volatility in market activity is high in the capital business



<sup>1)</sup> Carve-out figures for 2010-2013; as reported for Metso's Pulp, Paper and Power segment for 2006-2009, Automation has been consolidated into Valmet's financials since April 1, 2015, when the acquisition of Automation was completed.

# Appendix Growth and profitability improvement



# Recent development at Valmet

### **Recent development**

# Customer

# **echnology**

# Process

# eople

- · Good progress with Shared Journey Forward service concept
- All-time high Valmet package sales in Automation
- #1 position in tissue, board and paper
- Increased orders received from small and medium sized pulp projects

· Industrial Internet solutions and digitalized services commercialized, e.g. Valmet Performance Centers operational

- New products<sup>1</sup> >20% of net sales in 2017
- Improvement in product cost competitiveness

- ERP renewal proceeding
- Valmet in Dow Jones Sustainability Index for the fifth consecutive year
- Positive project margin deviation in Paper and in most Pulp and Energy projects. Cost overrun in one project in Pulp and Energy
- · Procurement savings continue
- LTIF<sup>2</sup> for own employees reached record low level at 2.1 (June 2018)
- Sales Journey and Innovation Pathways training programs ongoing
- Developing local competences close to customers
- Strengthened service capability in new regions
- ~1,400 Valmet employees in new or refurbished offices and facilities







# Actions to keep growing faster than the market

#### Stable business

- Long term co-operation with customers through agreements
- Develop local service capability
- Leverage and develop Field services as differentiator
- Lead the market through Industrial Internet offering
- Competitor replacements in Automation
- Grow through new industries in Automation

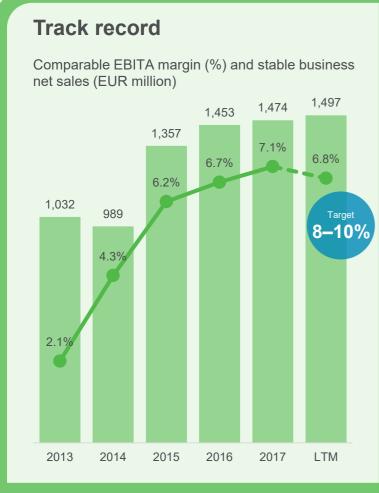
### **Capital business**

- Continue to bring advanced technology to the market
- Improve product cost competitiveness
- Secure mega pulp mill cases
- Create customer value with digitalization and Industrial Internet



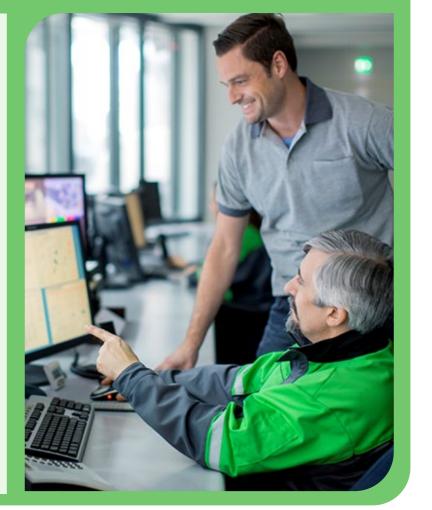


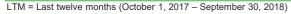
# Actions to reach Comparable EBITA target of 8–10%



# **Actions to reach Comparable EBITA target:**

- Grow the stable business
- No negative margin deviation in capital projects
- Continued actions to save in procurement
- Increase flexibility in operations through global footprint development
- R&D and new product launches
- Internal efficiencies through digitalization
- ERP project (from 2021 onwards)







# Procurement and quality cost development

#### Implemented procurement savings of annual direct spend



### Targeting >3% of procurement savings annually

- Increasing design-to-cost (DTC) to create new sources for savings
- More supplier involvement through supplier relationship management
- Continuing sustainable supply chain implementation

### Quality costs (% of net sales)



### Long-term quality costs goal <1.3% of net sales

- Adding focus in root cause analysis of the quality deviations
- Extensive Lean implementation and training
  - Over 4,000 Valmet employees completed Lean e-learning
  - Lean being deployed in all major locations and businesses

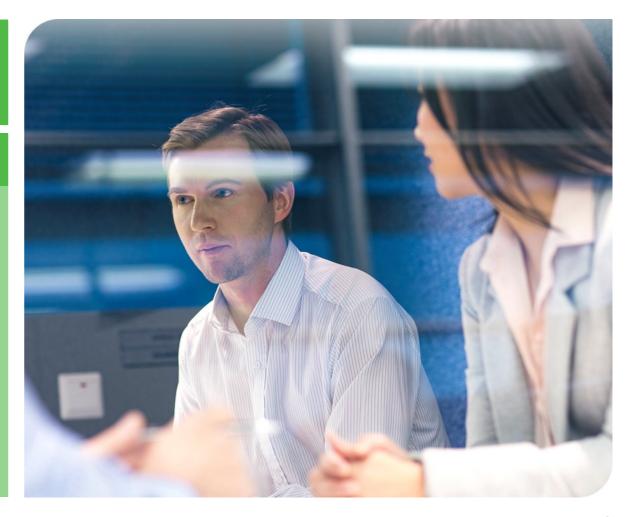


# Acquisitions

- Focus on organic growth
- Selective acquisitions can be done to support growth

### **Acquisition themes**

- Strengthening Services
  - Complementing existing portfolio
  - Expansion in consumables
- Strengthening Automation
  - Stronger Pulp & Paper automation
  - Expansion in Industrial Internet
  - Stronger presence in growth markets
- Expanding business in pulp, paper and energy value chain





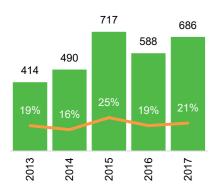
# Appendix Area development



## North America

### Mature services focused market with recurring opportunities in paper, tissue and automation

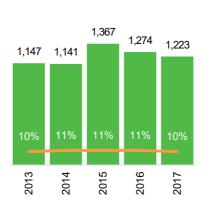
Orders received (EUR million and % of total)



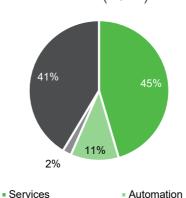
Net sales (EUR million and % of total)



**Employees** (number and % of total)



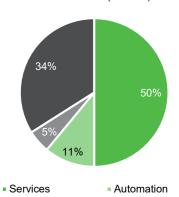
Orders received by business line (2017)



Paper

Pulp and Energy

Net sales by business line (2017)



Paper

#### Market size<sup>1</sup> & growth

- Target market size: EUR 2.8 billion
- Pulp and paper annual production<sup>2</sup>: 150 million tonnes, growth +0.9%

#### Market characteristics

- Mature market with large aging installed base creating service demand
- Rebuild and new process technology opportunities in board and tissue grades. Capacity closures in printing papers
- · Continued customer focus on availability, reliability, operating cost and environmental savings in mills
- Service, rebuild and upgrade opportunities in pulp

#### Valmet's position and competition

Pulp and Energy

- Leading position in pulp and paper process technology projects, and a well-established position in the services and automation business
- Key competitors: Voith, Andritz, Emerson, ABB, Honeywell and US services players Albany, Xerium, Kadant, Asten Johnsson



<sup>2013</sup> figures on a carve-out basis. Automation business line figures included as of Q2/2015.

<sup>&</sup>lt;sup>1</sup> Valmet's target market, meaning those geographical markets, product segments and customer industries where Valmet is currently competing or aiming to compete.

<sup>&</sup>lt;sup>2</sup> Figures for 2016 production and 2016-20 growth based on RISI estimates

# South America

## Cyclical capital business relies on new pulp projects. Services, board and tissue provide growth opportunities

Orders received (EUR million and % of total)

533

281

Net sales (EUR million and % of total)

335

2015

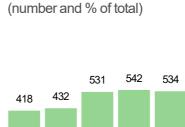
2016

2017

325

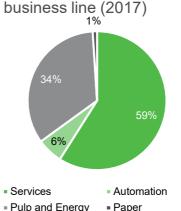
2014

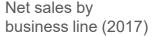
2013

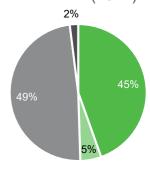


**Employees** 

Orders received by business line (2017)











2016

 Target market size: EUR 1.6 billion

201

Pulp and paper annual production<sup>2</sup>: 40 million tonnes, growth +2.9%

#### Market characteristics

2015

2016

2017

 Service growth driven by demand for more efficient operations and environmental considerations

2013

 Cyclical process technology project business driven by large pulp mill investments. Continuous opportunities in pulp mill rebuilds and upgrades.

4%

2014

- · Opportunities in tissue, and occasionally in board, with new lines and rebuilds
- Brazil's political and economic instability impacts project decisions

- Valmet has a strong position and installed base in pulp mills and services
- Continued strong competition from regional players expected in pulp and energy as well as from Andritz for large new pulp mills
- Local presence important, especially in Brazil due to customs duties



<sup>2013</sup> figures on a carve-out basis. Automation business line figures included as of Q2/2015.

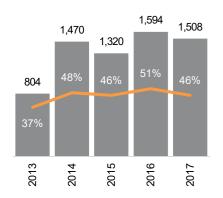
<sup>&</sup>lt;sup>1</sup> Valmet's target market, meaning those geographical markets, product segments and customer industries where Valmet is currently competing or aiming to compete.

<sup>&</sup>lt;sup>2</sup> Figures for 2016 production and 2016-20 growth based on RISI estimates

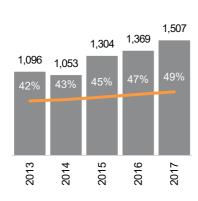
## **EMEA**

### Largest and most important area with significant services and technology markets in all Valmet's businesses

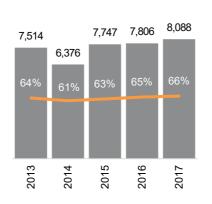
Orders received (EUR million and % of total)



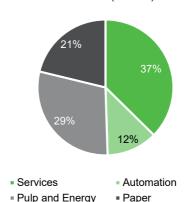
Net sales (EUR million and % of total)



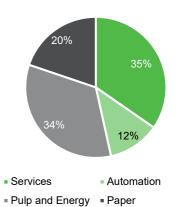
**Employees** (number and % of total)



Orders received by business line (2017)



Net sales by business line (2017)



#### Market size<sup>1</sup> & growth

- Target market size: EUR 5.7 billion
- Pulp and paper annual production<sup>2</sup>: 160 million tonnes, growth +1.3%

#### Market characteristics

- Valmet's largest area with significant services and technology markets and a large installed base
- Services growth potential through broader service offering, agreements-based business and new value added solutions to increase customers' productivity and efficiency
- Process technology project opportunities in board, tissue, pulp and energy driven by increasing focus on sustainability and growth in packaging and tissue consumption

#### Valmet's position and competition

- Leading position in pulp and paper process technology projects as well as in biomass boilers in energy
- · Leading position in the more fragmented services market and in pulp and paper automation

2013 figures on a carve-out basis. Automation business line figures included as of Q2/2015.



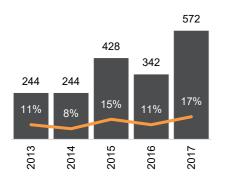
<sup>&</sup>lt;sup>1</sup> Valmet's target market, meaning those geographical markets, product segments and customer industries where Valmet is currently competing or aiming to compete.

<sup>&</sup>lt;sup>2</sup> Figures for 2016 production and 2016-20 growth based on RISI estimates

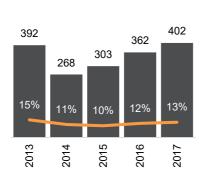
# China

### Capital business at new normal level, growth opportunities in Services

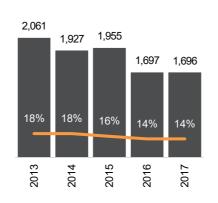
Orders received (EUR million and % of total)



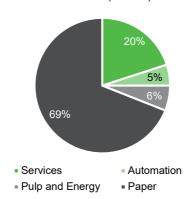
Net sales (EUR million and % of total)



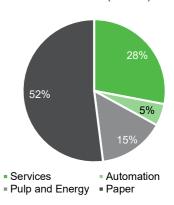
Employees (number and % of total)



Orders received by business line (2017)



Net sales by business line (2017)



#### Market size<sup>1</sup> & growth

- Target market size: EUR 2.8 billion
- Pulp and paper annual production<sup>2</sup>: 120 million tonnes, growth +2.4%

#### Market characteristics

- Growing services market driven by new board and tissue lines, and demand for energy savings, efficiency improvements and reliability
- Process technology project opportunities in board, tissue and energy driven by growing consumption, stricter environmental regulation and demand for clean energy

#### Valmet's position and competition

- Leading position in pulp and paper process technology and a strong position in services and pulp and paper automation market
- Continued strong competition from local and global competitors

2013 figures on a carve-out basis. Automation business line figures included as of Q2/2015.



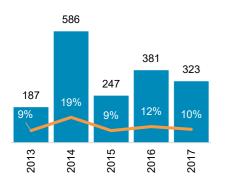
<sup>&</sup>lt;sup>1</sup> Valmet's target market, meaning those geographical markets, product segments and customer industries where Valmet is currently competing or aiming to compete.

<sup>&</sup>lt;sup>2</sup> Figures for 2016 production and 2016-20 growth based on RISI estimates

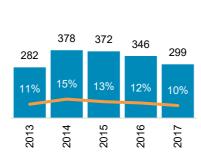
# Asia-Pacific

### Developing services market with growth potential

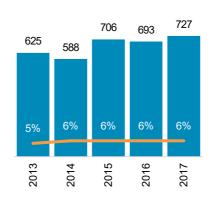
Orders received (EUR million and % of total)



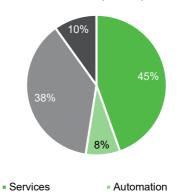
Net sales (EUR million and % of total)



**Employees** (number and % of total)



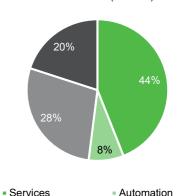
Orders received by business line (2017)



Paper

Pulp and Energy

Net sales by business line (2017)



Paper

#### Market size<sup>1</sup> & growth

- Target market size: EUR 2.5 billion
- Pulp and paper annual production<sup>2</sup>: 100 million tonnes, growth +1.8%

#### Market characteristics

- Services growth potential in both emerging and mature markets in growing installed base and market share
- Process technology project opportunities in rebuilds, grade changes and new capacity in pulp, board and tissue, and in renewable energy projects in selected countries

#### Valmet's position and competition

Pulp and Energy

- Leading position in pulp and paper process technology and increasing local presence
- Increasing competition from Chinese players moving into Asia-Pacific region

2013 figures on a carve-out basis. Automation business line figures included as of Q2/2015.



<sup>&</sup>lt;sup>1</sup> Valmet's target market, meaning those geographical markets, product segments and customer industries where Valmet is currently competing or aiming to compete.

<sup>&</sup>lt;sup>2</sup> Figures for 2016 production and 2016-20 growth based on RISI estimates

Appendix
Shareholders, share price development and sustainability



# Largest shareholders on November 30, 2018

## Based on the information given by Euroclear Finland Ltd

#	Shareholder name	Number of shares	% of shares and votes
1	Solidium Oy	16,695,287	11.14%
2	Varma Mutual Pension Insurance Company	4,165,465	2.78%
3	Elo Pension Company	3,600,000	2.40%
4	Ilmarinen Mutual Pension Insurance Company	3,270,000	2.18%
5	The State Pension Fund	1,545,000	1.03%
6	Keva	1,502,166	1.00%
7	Evli Funds	975,000	0.65%
8	Danske Invest funds	858,190	0.57%
9	Mandatum Life Insurance Company Limited	844,423	0.56%
10	Nordea Funds	754,919	0.50%
	10 largest shareholders, total	34,210,450	22.81 %
	Other shareholders	115,654,169	77.19 %
	Total	149,864,619	100.00%

### Latest flagging notifications

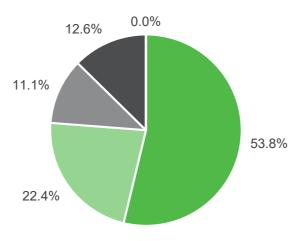
00	0		
Date of transaction	Shareholder	Number of shares	% of shares and votes
May 15, 2018	BlackRock, Inc.	Below 5%	Below 5%
May 14, 2018	BlackRock, Inc.	7,499,877	5.00%
May 10, 2018	BlackRock, Inc.	Below 5%	Below 5%
May 9, 2018	BlackRock, Inc.	7,587,402	5.06%
May 7, 2018	BlackRock, Inc.	Below 5%	Below 5%
May 3, 2018	BlackRock, Inc.	7,541,851	5.03%
May 2, 2018	BlackRock, Inc.	Below 5%	Below 5%
March 26, 2018	BlackRock, Inc.	7,504,487	5.00%
March 20, 2018	BlackRock, Inc.	Below 5%	Below 5%





# Shareholder structure on November 30, 2018

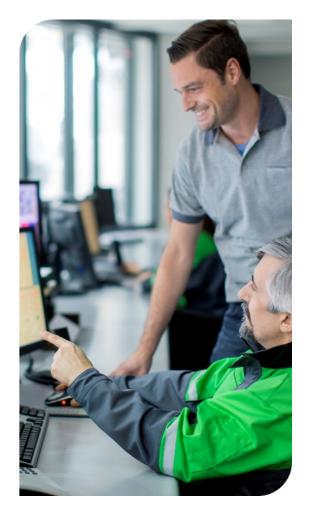
The shareholder structure is based on the classification of sectors determined by Statistics Finland



- Nominee registered and non-Finnish holders
- Solidium Ov\*
- On issuer account

- Finnish institutions, companies and foundations
- Finnish private investors

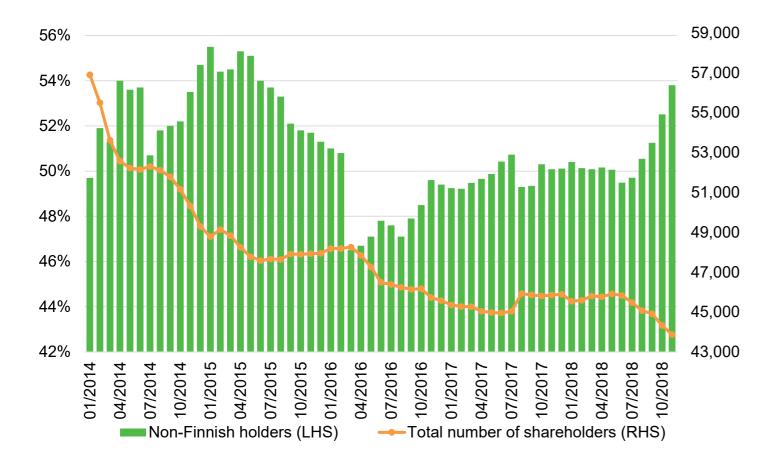
Sector	Number of shareholders	% of total shareholders	Number of shares	% of shares
Nominee registered and non-Finnish holders	334	0.77%	80,579,730	53.77%
Finnish institutions, companies and foundations	2,237	5.10%	33,640,154	22.45%
Solidium Oy*	0	0.00%	16,695,287	11.14%
Finnish private investors	41,301	94.14%	18,941,368	12.64%
On issuer account	0	0.00%	8,080	0.01%
Total	43,872	100.00%	149,864,619	100.00%



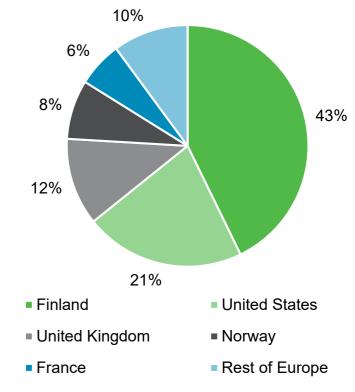


# Share of non-Finnish holders and area split of shareholders

Share of non-Finnish holders and number of shareholders



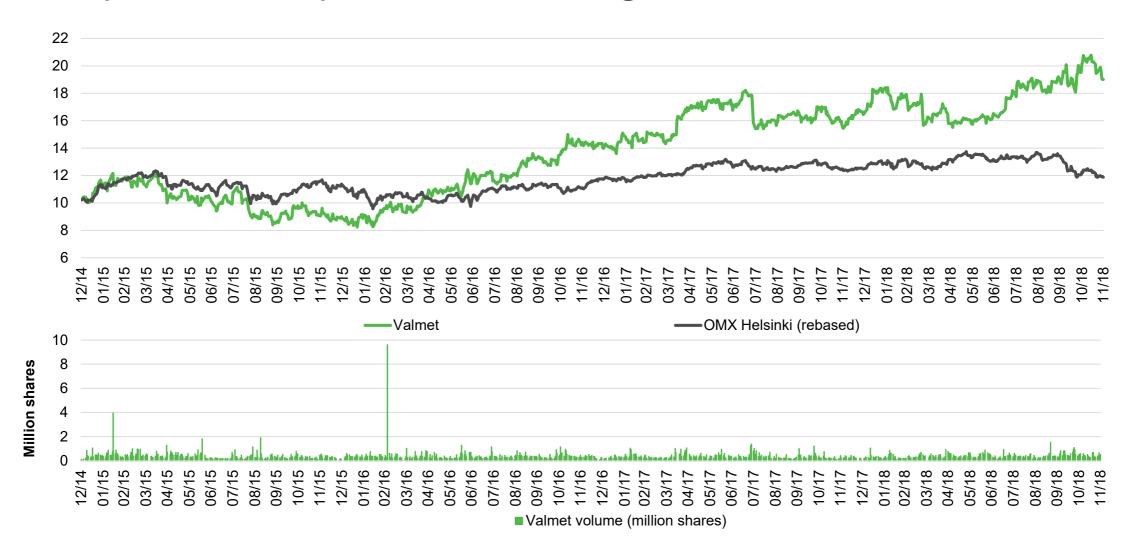
Approximate geographical split of institutional shareholders\*



<sup>\*)</sup> in December 2017. Source: Nasdaq Corporate Solutions



# Share price development and trading volume





# Progress on Sustainability 360° agenda

	Targets	Key actions for 2018		
Sustainable supply chain	<ul> <li>Develop sustainable procurement practices globally</li> <li>Support selected key suppliers to meet the level of sustainability expected by Valmet</li> </ul>	<ul> <li>Continue supplier sustainability audits (min. 50 / year)</li> <li>Continue to increase traceability in supply chain</li> <li>Develop carbon footprint calculations</li> </ul>	<ul> <li>Continue with sustainability training for global procurement and integrate sustainability into procurement training programs</li> <li>Launch sustainability engagement program key suppliers with targets, KPIs and follow-up mechanisms</li> </ul>	5 mars   B convenience   S con
Health, safety and environment	<ul> <li>Drive safety culture</li> <li>Best in class HSE management practices</li> <li>Secure compliance and improvements</li> </ul>	<ul> <li>Start global implementation of safety culture training program</li> <li>Renew Valmet's Health and Safety key performance indicators</li> <li>Weekly toolbox talks to be held in all workplaces</li> <li>Implementation of global standard for risk assessments</li> <li>Collaborating for contractor safety program continues</li> </ul>	<ul> <li>Define global roadmap to reduce waste to landfill</li> <li>Local HSE action plans in all locations and follow-up of selected units</li> <li>Certified global management system in place (to ISO 9001; 14001 and 45001)</li> <li>Complete minimum 20 HSE audits per year</li> </ul>	9 WINDSCHOOL TO CONCERN TO CONCERN THE CONCERN TO CONCERN THE CONC
People and performance	<ul> <li>Boost employee engagement</li> <li>Develop the best talent</li> <li>Increase diversity</li> <li>Be a responsible employer</li> </ul>	<ul> <li>Execute OurVoice development actions and communicate progress</li> <li>Introduce an employee role description to continue to develop a culture of accountability</li> <li>Ensure annual review discussion coverage of &gt;95% for white collar employees</li> <li>Develop global training portfolio to support strategic goals; launch project execution program</li> <li>Utilize learning library for technical and functional training</li> <li>Execute development actions for talent review population</li> <li>Create programs and processes to support career development of diversity talent</li> </ul>	<ul> <li>Continue prioritizing diversity talent in global training portfolio nomination process</li> <li>Widen recruitment pool beyond traditional candidates</li> <li>Further develop human rights framework through systematic 3-year roadmap</li> <li>Rollout team management practices and new manager training program</li> <li>Run 360° feedback process for identified managers</li> <li>Launch sustainability e-learning</li> <li>Plan wellbeing roadmap for 2018–2020 as part of integrated workforce approach</li> </ul>	5 trans total transmission of the control of the co
Sustainable solutions	<ul> <li>Deepen understanding of customers' sustainability needs</li> <li>Integrate sustainability into R&amp;D processes and tools</li> </ul>	<ul> <li>Continue to conduct interviews with selected key customers and into key account management process</li> <li>Continue to arrange sustainability training for sales teams</li> <li>Study the possibility of manufacturing consumables from renewant</li> </ul>		9 NOTIFICATIONS 12 CONTROL 13 CANNY APPRICATION 6 RECORDERS 7 CHARACTER 13 CANNY APPRICATION 8 CONTROL 10 10 10 10 10 10 10 10 10 10 10 10 10 1
Corporate citizenship	<ul> <li>Ensure compliance with guiding principles</li> <li>Promote transparent reporting and active stakeholder collaboration</li> </ul>	<ul> <li>Launch e-learning on sustainability for all Valmet employees</li> <li>Review the Code of Conduct content and relaunch e-learning</li> <li>Create a long-term roadmap for social projects</li> <li>Continue stakeholder dialogue and encourage stakeholders to gabout sustainability performance in stakeholder surveys</li> </ul>	give feedback	5 (START)  8 (START)  10 (START)  10 (START)  START)



Appendix
Strategy and offering



# Valmet's way forward



#### Our Values



#### Customers

We move our customers' performance forward



#### Renewal

We promote new ideas to create the future



#### Excellence

We improve every day to deliver results



#### **People**

We work together to make a difference

#### Megatrends

· Resource efficient and clean world

Our Vision

- Digitalization and new technologies
- · Urban, responsible and global consumer



# Business opportunities

### **eCommerce**



Global sales in 2017 reached **USD 2.3 trillion** Forecasted to grow 141% from 2016 to 2021

### Replacing plastic



2017 - Total size of packaging business EUR 600 billion p.a. Fiber based 36% Plastic 40% Growing 3-6% p.a.

### **Emerging markets**



Expected to drive the global tissue growth, accounting for 83% of incremental demand by 2030



# Services business line offering

### Shared Journey Forward offering

### Reliability

- Spare parts and components
- Maintenance and shutdown services
- Outsourcing services

#### Performance

- Production consumables
- Process support and optimization

### **New Technology**

- Process and automation upgrades
- Industrial Internet and remote solutions







### Services business units

#### Performance Parts

Spare parts and consumables

#### **Fabrics**

Paper machine clothing and filter fabrics

### **Energy and Environmental**

 Services for energy and environmental systems

### Rolls and Workshop Services

 Rolls, roll covers and maintenance, workshop services

### Mill Improvements

Upgrades, components and expert services



# Automation business line offering and market overview

### Advanced automation and process monitoring solutions and services:

- Distributed Control System (DCS) Valmet DNA
- Performance solutions
- Quality Control System (QCS)
- **Profilers**
- Analyzers and measurements

- Industrial internet solutions
- **Automation services**
- Process simulators
- Safety systems and solutions

Over 4.500 automation systems and over 40,000 analyzers and measurements delivered

### **Distributed Control** System (DCS)



#1-2



Condition monitoring

Information management

**Profilers** 

Scope/product

Web inspection and web break analysis systems

DCS for process and plant controls

APC (advanced process control)

Industrial Internet applications

### Market size

Pulp and paper DCS market:

• EUR 900 million

Power DCS market:

EUR 700 million

#### Main competitors

- ABB
- Honeywell
- **Emerson**
- Siemens
- Yokogawa
- **ABB**

- Honeywell
- Voith
- Paperchine
- Procemex

- Cognex
- Isra Vision

Procemex



Paper analyzers

- Pulp analyzers
- Pulp consistency measurements
- Conductivity measurements
- Power analyzers



Estimated market size:

>EUR 200 million

<EUR 200 million</li>

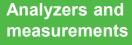
- ABB
- BTG











Management

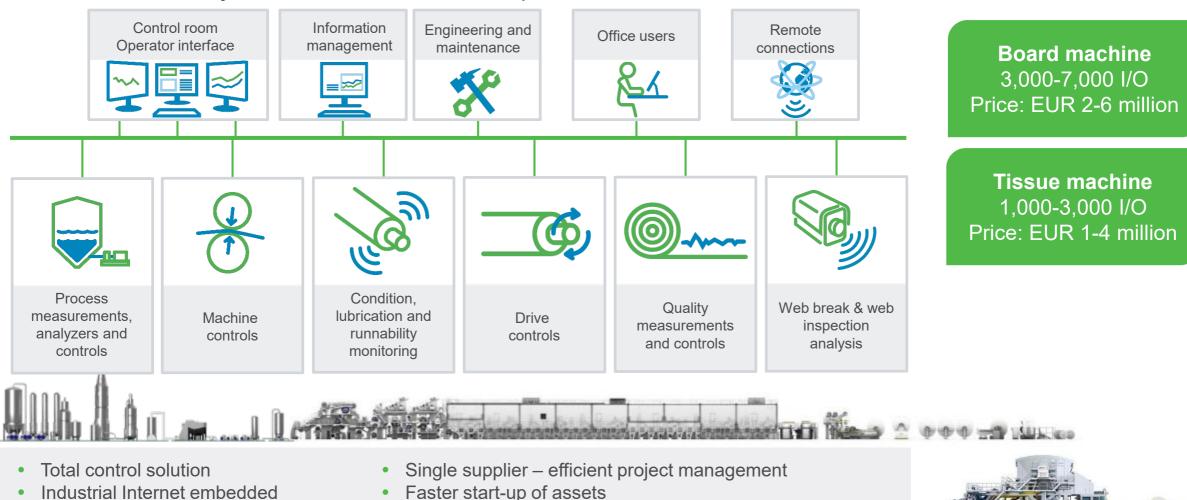
Quality

**System** 



# Automation projects and services: Board and Tissue machines

Automation delivery content and service scope





# Pulp and Energy business line offering



### Pulp

- Wood and pulp handling
  - Wood handling, fuel handling, pulp drying
- Fiber processing
  - Complete fiber lines, cooking systems, recausticizing
  - Mechanical pulping
  - Black pellet and pre-hydrolysis technologies
- Recovery
  - Recovery boilers, evaporation systems, lime kilns
  - Mill wide odorous gas handling, ash treatment
  - Sulfuric acid plants and lignin extraction



### Energy

- Heat and power generation
  - Fluidized bed boilers, bio-grate boilers, biomass and waste gasification
  - Boiler islands and small power plants
- Air emission control
  - Flue gas cleaning and heat recovery for boilers
  - Emission control for process industry and marine
- Biofuels
  - Pyrolysis plants with emission control and burners



# Paper business line offering



### Board and paper

- Board and paper production lines
  - Recycled fiber lines
  - Tailor-made OptiConcept machines
  - OptiConcept M modularized machines
- Rebuilds
  - Modernizations and grade conversions
- Stand-alone products
  - From stock preparation to roll handling
  - e.g. headboxes, sizers, winders



#### Tissue

- Tissue production lines
  - Advantage DCT
  - Advantage NTT/QRT/eTAD
  - Advantage Thru Air (TAD)
- Rebuilds
- Stand-alone products
  - From stock preparation to roll handling
  - e.g. Yankee cylinders, ViscoNips, Re-Winders



# Full scope offering for the pulp and paper industry

### **Technologies**

- Wood handling
- Heat and power production
- Chemical pulping
- Chemical recovery
- Pulp drying

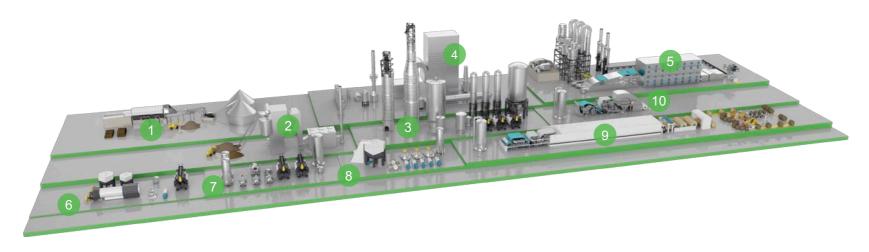
- Recycled fiber
- Mechanical fiber
- Stock preparation
- Board and paper making
- Tissue making

#### **Automation**

- Distributed Control System (DCS)
- Performance solutions
- Quality Control System (QCS)
- **Profilers**
- Analyzers and measurements
- Industrial internet solutions
- **Automation services**
- Process simulators
- Safety systems and solutions

#### Services

- Mill and plant improvements
- Spare and wear parts
- Paper machine clothing and filter fabrics
- Roll services
- Services for evaporation plants, power and recovery boilers
- Services for environmental equipment





# Our offering for energy industry and biotechnologies

### **Technologies**

- Fuel handling
- 2 Gasification
- 3 Boiler and flue gas cleaning
- Bio-oil production

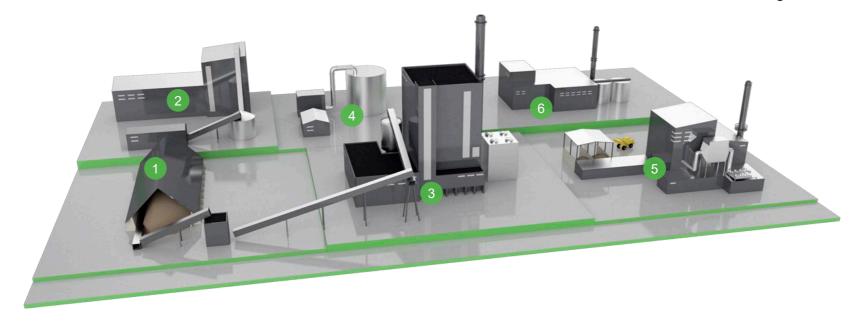
- Modularized power plants
- 6 Prehydrolysis
  For biofuels,
  biomaterials and
  biochemicals, and
  bio coal production

#### **Automation**

- Distributed Control System (DCS)
- Performance solutions
- Analyzers and measurements
- Industrial internet solutions
- Automation services

#### Services

- Plant improvements
- Rebuilds
- Performance services
- Services for environmental equipment
- Components and spare parts
- Training





# Continuous investment in research and development to improve customers' processes



#### **Customers' needs**

- Increase production efficiency
- Improve competitiveness
- Maximize value of raw materials
- Widen raw material base
- Provide high-value end products
- Develop new innovations and technologies



#### Valmet's R&D focus

- Modularized and standardized products
- Energy, water and raw material efficiency
- Automation technology
- Biomass conversion technologies



#### Valmet's R&D resources

- Own R&D centers and pilot facilities
- Annual R&D spend about EUR 65 million
- Around 1,500 protected inventions
- Cooperation with universities and research institutions



### Example of our R&D work -**OptiConcept M board and paper** machine

- Cost-efficient, high-quality, safe and flexible board making concept
- Significant savings in energy, water and raw material use
  - Energy efficiency improvement up to 30%
- Modular and compact size
  - Short delivery times, quick start-ups, and less production space
- Functional design brings increased safety and accessibility
  - Design acknowledged in Finnish design competition in 2014



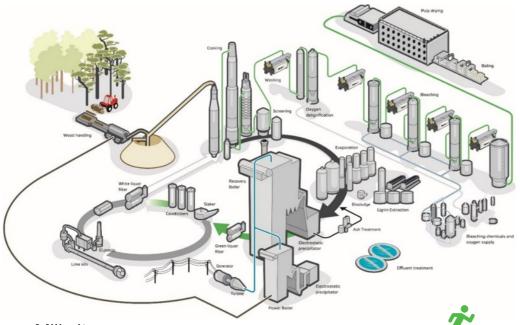
# Today, customers are extensively utilizing our Industrial Internet capabilities





# Typical dimensions of pulp mills, and paper, board and tissue machines

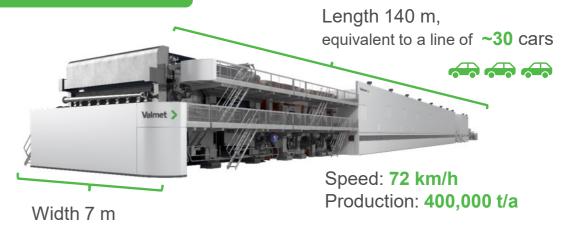
### Pulp mill



Mill site area:  $500,000 - 5,000,000 \text{ m}^2$ , equivalent to ~70–700 football fields

Built area:  $40,000 - 100,000 \text{ m}^2$ , equivalent to  $\sim 6-14$  football fields

### Paper and board machine



Tissue machine

Length 40 m, equivalent to a line of ~9 cars



Speed: 120 km/h

Production: 65,000 t/a





# Appendix Management



## **Executive Team**

Corporate



Pasi Laine President and CEO Share ownership: 116,244



Kari Saarinen CFO Share ownership: 32,671



Julia Macharey SVP, Human Resources Share ownership: 22,036



Juha Lappalainen SVP, Strategy and Operational Development Share ownership: 29,444



Anu Salonsaari-Posti SVP, Marketing & Communications Share ownership: 16,752

**Business lines** 



Aki Niemi Business Line President. Services Share ownership: 44,136



Sami Riekkola Business Line President. Automation Share ownership: n/a



Bertel Karlstedt Business Line President, Pulp and Energy Share ownership: 34,217



Business Line President. Paper



Jari Vähäpesola Share ownership: 41,116



Xiangdong Zhu Area President. China Share ownership: 11,480



Jukka Tiitinen Area President, Asia Pacific Share ownership: 70,760

Business areas



Dave King Area President, North America Share ownership: 18,691



Celso Tacla Area President, South America Share ownership: 65,970



Vesa Simola Area President, EMEA Share ownership: 33,003

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## **Board of Directors**



Bo Risberg (b. 1956) Chairman of the Board Swedish citizen

- · BSc (Mech. Eng), MBA
- Selected experience:
- Vice CoB of Grundfos A/S
- Member of the BoD of Stäubli International AG
- Share ownership: 12.554
- · Independent of company: Yes
- Independent of owners: Yes



Eriikka Söderström (b. 1968) Board member Finnish citizen

- M.Sc. (Econ.)
- Selected experience:
- CFO of F-Secure Corporation
- Share ownership: 2,347
- · Independent of company: Yes
- Independent of owners: Yes



**Aaro Cantell** (b. 1964) Vice-Chairman of the Board Finnish citizen

- · M.Sc. (Tech.)
- · Selected experience:
- CoB of Normet Group Oy, VTT Technical Research Centre of Finland I td
- Member of the BoD of Solidium Oy, Federation of Finnish Technology Industries
- · Share ownership: 4,448
- Independent of company: Yes
- · Independent of owners: No



Tarja Tyni (b. 1964) Board member Finnish citizen

- LL.M.
- · Selected experience:
- CoB of Innova Oy and Mandatum Life Investment Services Ltd
- Share ownership: 4,143
- Independent of company: Yes
- Independent of owners: Yes



Pekka Kemppainen (b. 1954) Board member Finnish citizen

- · Lic.Sc. (Tech.)
- · Selected experience:
- Member of the BoD of Junttan Ov
- Several positions within KONE, including Managing Director of KONE Elevators Australia
- Share ownership: 1.217
- Independent of company: Yes
- · Independent of owners: Yes



Rogério Ziviani (b. 1956) Board member Brazilian citizen

- · BSc in Business Management, MBA
- Selected experience:
- Member of the BoD of Innovatech Negócios Florestais
- Share ownership: 8,330
- Independent of company: Yes
- · Independent of owners: Yes



Monika Maurer (b. 1956) Board member German citizen

- · Diploma in Physics and Chemistry, Diploma in Pedagogy
- · Selected experience:
- Chief Operating Officer of Nokia Group
- Chief Operating Officer of Nokia's Fixed Networks **Business Group**
- Share ownership: 1,217
- · Independent of company: Yes
- Independent of owners: Yes



