

# ANNUAL REVIEW 2020

Progress in operations and sustainability





Valmet is the leading global developer and supplier of process technologies, automation and services for the pulp, paper and energy industries.

We aim to become the global champion in serving our customers.

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# SOLID PROGRESS IN EXCEPTIONAL TIMES

All in all, none of us expected such a year, but we managed to make it successful together.

Valmet entered 2020 confidently, supported by a high order backlog at the end of 2019. As with all companies and people around the world, 2020 proved exceptional because of the COVID-19 pandemic. Thanks to the good and consistent development of the company's performance since 2013, Valmet had a good foundation for meeting this new situation and uncertainty in the global markets.

During the year, we at Valmet focused on ensuring the safety of our people, business continuity, and accelerating our digital transformation in serving our customers and ensuring effective internal operations. Our global Valmet team showed remarkable adaptation and resilience in these new circumstances. Our employees have shown flexibility by taking on new roles, familiarizing themselves with new digital tools and solutions to do business and serve our customers, and creating new ways of working. By working together inside the company and with our customers globally, we have taken a huge leap forward with our internal and external digitalization. All in all, none of us expected such a year, but we managed to make it successful together.

In 2020, Valmet's orders received decreased by 8 percent to EUR 3,653 million, and our order backlog at the end of the year was EUR 3,257 million. Net sales grew by 5 percent, amounting to EUR 3,740 million. The comparable EBITA margin was 9.8 percent, close to our new target range of 10–12 percent.

### **Good results in process technology businesses**

Our Pulp and Energy business line had a strong year, with many significant orders from our customers around the world. The Paper business line also continued its consistently excellent performance, receiving multiple major orders worldwide. The Chinese market was especially active, with several pulp, tissue and board technology orders.

In Valmet's stable business – the Automation and Services business lines – the COVID-19 pandemic especially impacted services provided at our customer sites. During the year, we streamlined the way of working and organization in the Services business line to meet the new market situation and settle some long-term competitiveness issues in certain parts of the business. Our Automation business line had a stable year, managing customer delivery timelines well, with a minimal impact from the pandemic. Furthermore, Valmet was able to launch more than 30 Industrial Internet-based solutions for customers and a revolutionary new web-based user interface for Valmet's DNA Automation system.

### **Strategic acquisitions continued**

In recent years, Valmet has followed its acquisition strategy of making well-considered acquisitions with a clear industrial logic. The

focus has been on strengthening our stable business and expanding business in the pulp, paper and energy value chain. In 2020, Valmet strengthened its board and tissue technology and services offering by acquiring PMP Group in Poland and integrating it in the Paper business line. The former PMP's offering of small and medium-sized tissue, board and paper machines, and machine rebuilds complements Valmet's existing technology and services offering for wide and fast machines and rebuilds.

In June 2020, Valmet agreed to acquire a 14.9 percent ownership in the future Neles Corporation and gradually increased its ownership to 29.5 percent of the company. Valmet sees that Valmet and Neles together would create a Nordic-based global leader with a unique offering for global process industries and with excellent potential for long-term shareholder value creation. Valmet's current Automation Systems business and Neles' Valves business would make a strong combination in the automation market. We will continue to keep Neles as a long-term strategic development project for Valmet.

### **Strong sustainability profile based on systematic agenda implementation**

During the year, Valmet continued its systematic Sustainability360° Agenda implementation. The COVID-19 pandemic mostly impacted our ability to reach the targeted number of supplier audits. Otherwise, we proceeded with our program as planned. We focused on ensuring sustainable business practices throughout our operations and key business processes. Our approach of continuously improving our performance has positioned Valmet as the industry leader in sustainability. In 2020, Valmet was included in the Dow Jones Sustainability Indices (DJSI) for the seventh consecutive year and the Ethibel Sustainability Index (ESI) Excellence Europe, and received an A- leadership rating in CDP's climate program ranking.

### **Forward together**

Valmet's motto has been "Forward" since 2013, and it continues to describe well our aim of continuous improvement and commitment to moving our customers' performance forward. I thank Valmet's customers and partners for their strong cooperative spirit during the exceptional year that was 2020. To Valmet's people – all our 14,000 colleagues around the world – I want to express my appreciation for your excellent work and the agility you have shown in serving our customers and building Valmet's success today and in the coming years.

### **Pasi Laine**

President and CEO

# KEY EVENTS IN 2020

Q1



Q2



## Valmet to deliver key pulp mill technology and automation for Lenzing's and Duratex's joint pulp mill project

**January 23, 2020** | The new 500,000-tonne dissolving wood pulp mill is being built in Minas Gerais state, Brazil. Valmet's delivery includes a fiber line, a pulp drying and baling line, an evaporation plant, a white liquor plant and a mill-wide automation system.



## Valmet raises its financial targets

**February 5, 2020** | Valmet decided to raise its financial targets for Comparable EBITA margin and return on capital employed. Valmet's new target for Comparable EBITA margin is 10–12 percent (previously 8–10%). The new target for comparable return on capital employed (ROCE) before taxes is at least 20 percent (previously 15–20%).

## Valmet to supply the world's fastest coated boardmaking line

**March 16, 2020** | Valmet will supply a coated boardmaking line (PM 2) with extensive packages of automation and Industrial Internet solutions for APP's Guangxi Jingui Pulp and Paper's (GJPP) Qinzhou mill in China. The start-up is scheduled for 2021. When started up, PM 2 will be the world's fastest coated boardmaking machine with the highest capacity.

## Valmet into preliminary agreement for key technology and automation delivery to the planned Kemi bioproduct mill in Finland

**April 29, 2020** | Valmet and Metsä Fibre signed a preliminary agreement according to which Valmet will deliver key technology covering all main process islands and automation systems to Metsä Fibre's planned Kemi bioproduct mill in Finland. The final agreement is subject to Metsä Fibre's investment decision. If materialized, the new bioproduct mill would have an annual pulp production capacity of 1.5 million tonnes and in addition produce various other bioproducts. The production of the new mill is scheduled to begin in 2023.



## Valmet acquires ownership in Neles

**June 17, 2020** | Valmet agreed to acquire 14.88 percent of all Neles Corporation's shares and votes from Solidium Oy. The transaction between Valmet and Solidium took place on July 1, 2020. Valmet later gradually increased its ownership in Neles to 29.5 percent.

Image: Neles

Q3



Q4



**Valmet to supply world's largest bleached chemi-thermomechanical pulp line**

**July 20, 2020** | Valmet will supply the world's largest bleached chemi-thermomechanical pulp line to Guangxi Sun Paper Co., Ltd.'s new Beihai mill in China. The start-up is scheduled for the fourth quarter of 2021.



**Valmet and Metsä Spring cooperate in developing novel 3D fiber products**

**August 21, 2020** | Valmet and Metsä Group's innovation company Metsä Spring are building a pilot plant in Äänekoski, Finland, to develop a new wood-based 3D fiber product for the global forest industry.



**Valmet continues to succeed in global sustainability ratings**

**November 16, 2020** | Valmet was included in the Dow Jones Sustainability Index (DJSI) for the seventh consecutive year. The company was listed both in the Dow Jones Sustainability World and Europe indices. Valmet also received an A- rating in the CDP Climate rating in December 2020.



**Valmet acquires PMP Group**

**September 11, 2020** | Valmet entered into an agreement to acquire Polish PMP Group, a global supplier of process technologies and services for tissue, board and paper machines. The value of the acquisition was approximately EUR 64 million. The net sales of the company were approximately EUR 70 million in the fiscal year 2019. The acquisition added about 650 new employees to Valmet, the majority of whom are located in Poland and the rest in China, the USA and Italy. The acquisition was completed in October 2020. The acquired business became part of Valmet's Paper business line.



**Mitigating the impacts of the COVID-19 pandemic**

**January–December, 2020** | The coronavirus pandemic, COVID-19, impacted Valmet's operations throughout the year. Protecting the health and safety of employees and other stakeholders, as well as managing business continuity, was at the center of day-to-day activities. The situation accelerated, for example, the usage of online meeting technologies and new, innovative ways to serve customers.



➤ THIS IS VALMET





## VALMET IN BRIEF

Valmet is the leading global developer and supplier of process technologies, automation, and services for the pulp, paper, and energy industries.

Valmet's net sales in 2020 were approximately EUR 3.7 billion. Our 14,000 professionals around the world work close to our customers and are committed to moving our customers' performance forward – every day. Valmet's head office is in Espoo, Finland, and its shares are listed on the Nasdaq Helsinki.



NET SALES  
EUR MILLION

3,740



COMPARABLE  
EBITA MARGIN

9.8%



PERSONNEL

14,046



COMPARABLE EBITA  
EUR MILLION

365

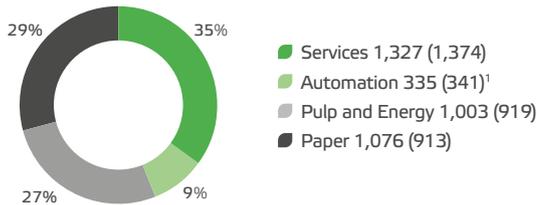


ORDERS RECEIVED  
EUR MILLION

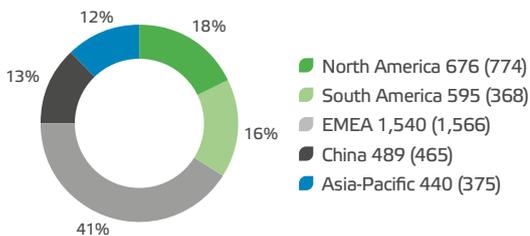
3,653

## KEY FIGURES

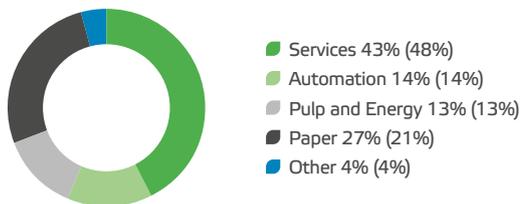
### Net sales by business line, EUR million



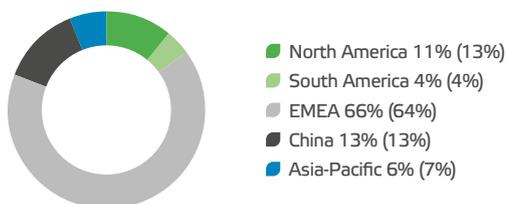
### Net sales by area, EUR million



### Personnel by business line, %



### Personnel by area, %



### Financial<sup>2</sup>

	2020	2019	CHANGE
Orders received, EUR million	<b>3,653</b>	3,986	-8%
Services	<b>1,356</b>	1,459	-7%
Automation	<b>334</b>	359	-7%
Pulp and Energy	<b>934</b>	1,125	-17%
Paper	<b>1,029</b>	1,043	-1%
Order backlog <sup>3</sup> , EUR million	<b>3,257</b>	3,333	-2%
Net sales, EUR million	<b>3,740</b>	3,547	5%
Comparable EBITA <sup>4</sup> , EUR million	<b>365</b>	316	16%
% of net sales	<b>9.8%</b>	8.9%	
Operating profit (EBIT), EUR million	<b>319</b>	281	13%
% of net sales	<b>8.5%</b>	7.9%	
Dividend per share, EUR	<b>0.90<sup>5</sup></b>	0.80	13%
Return on capital employed (ROCE) before taxes, EUR million	<b>22%</b>	23%	
Research and development expenses, net, EUR million	<b>75</b>	71	6%

### Social

	2020	2019	CHANGE
Personnel <sup>3</sup>	<b>14,046</b>	13,598	3%
Total recordable incident frequency (TRIF) <sup>3,6</sup>			
Own employees	<b>3.1</b>	4.3	-29%
Contractors	<b>7.8</b>	9.1	-15%
Safety committee coverage, % personnel	<b>97</b>	96	1%
Support for non-profit organizations, EUR million	<b>0.27</b>	0.14	87%
Number of supplier sustainability audits	<b>34</b>	46	-26%

### Environmental<sup>7</sup>

	2020	2019	CHANGE
CO <sub>2</sub> emissions <sup>8</sup> , 1,000 t	<b>80</b>	77	3%
Energy consumption, TJ	<b>1,362</b>	1,339	2%
Water consumption, 1,000 m <sup>3</sup>	<b>2,476</b>	2,467	0.4%
Waste, 1,000 t	<b>44</b>	39	14%

<sup>1</sup> Excluding internal net sales.

<sup>2</sup> Group figures: the formulas for calculation of the key financial figures are presented in the Financial Statements 2020.

<sup>3</sup> At the end of period.

<sup>4</sup> Comparable earnings before interest, taxes and amortization.

<sup>5</sup> Board of Directors' proposal.

<sup>6</sup> TRIF reflects the number of injuries resulting in medical treatment, restricted work or an absence of at least one workday per million hours worked.

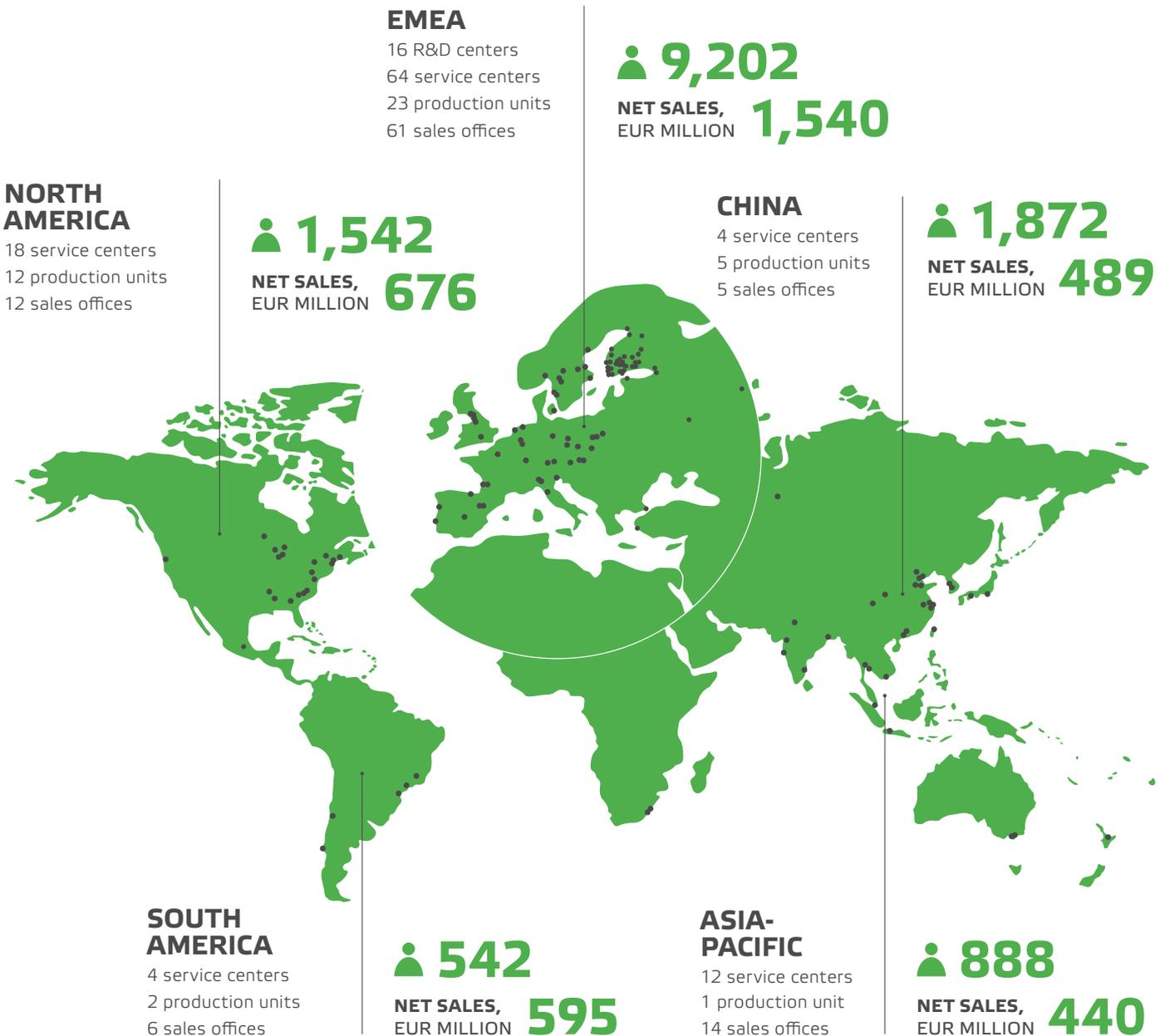
<sup>7</sup> Data for 2020 includes the acquisitions from 2019 for the first time. Acquisitions made in 2020 will be reported from 2021 onwards.

<sup>8</sup> Scope 1 and 2 (location-based) emissions.

## GLOBAL PRESENCE

Valmet has a strong global presence, which enables us to meet our customers' needs in the best possible way and to leverage the growth potential in different markets. We employ 14,000 professionals around the world and have customers in 100 countries. We have more than 100 service centers, 98 sales offices, 43 production units, and 16 R&D centers around the world.

➤ **READ MORE:**  
[valmet.com](http://valmet.com)



## MARKET DATA BY AREA

AREA	MARKET SIZE <sup>1</sup>	MARKET CHARACTERISTICS	VALMET'S POSITION
<b>North America</b>	Target market size <sup>1</sup> : EUR 2.0–2.5 bn.	<ul style="list-style-type: none"> <li>• Mature market with large aging installed base creating service demand</li> <li>• Rebuild and new capacity opportunities in board and tissue grades. Capacity closures in printing papers</li> <li>• Continued customer focus on availability, reliability, operating cost and environmental savings in mills</li> <li>• Service, rebuild and upgrade opportunities in pulp</li> </ul>	<ul style="list-style-type: none"> <li>• Net sales: EUR 0.7 bn. (18% of total net sales of company)</li> <li>• Net sales range 2016–2020: EUR 0.6–0.8 bn.</li> <li>• Employees: 1,542</li> <li>• Leading position in pulp and paper process technology</li> <li>• Well-established position in the services and automation business</li> </ul>
<b>South America</b>	Target market size <sup>1</sup> : EUR 1.1–2.1 bn.	<ul style="list-style-type: none"> <li>• Service growth driven by demand for more efficient operations, environmental considerations and growing trend of mill maintenance outsourcing</li> <li>• Cyclical process technology project business driven by large pulp mill investments. Continuous opportunities in pulp mill rebuilds and upgrades</li> <li>• Opportunities in board and tissue with new lines and rebuilds</li> <li>• Consolidation of pulp and tissue customers</li> </ul>	<ul style="list-style-type: none"> <li>• Net sales: EUR 0.6 bn. (16% of total net sales of company)</li> <li>• Net sales range 2016–2020: EUR 0.2–0.6 bn.</li> <li>• Employees: 542</li> <li>• Valmet has a strong position and installed base in pulp mills and services</li> <li>• Continued strong competition from regional players expected in pulp and energy sector, as well as from Andritz in large new pulp mills</li> <li>• Local presence important, especially in Brazil due to customs duties</li> </ul>
<b>EMEA (Europe, Middle East and Africa)</b>	Target market size <sup>1</sup> : EUR 5.5–6.0 bn.	<ul style="list-style-type: none"> <li>• Valmet's largest area with significant services and technology markets in all Valmet's businesses and large installed base</li> <li>• Services growth potential through broader service offering, agreements-based business and new value-added solutions to increase customers' productivity and efficiency</li> <li>• Process technology project opportunities in board, tissue, pulp and energy driven by increasing focus on sustainability and growth in packaging and tissue consumption</li> </ul>	<ul style="list-style-type: none"> <li>• Net sales: EUR 1.5 bn. (41% of total net sales of company)</li> <li>• Net sales range 2016–2020: EUR 1.4–1.6 bn.</li> <li>• Employees: 9,202</li> <li>• Leading position in pulp and paper process technology as well as in biomass boilers in energy</li> <li>• Leading position in the more fragmented services market and in pulp and paper automation</li> </ul>
<b>China</b>	Target market size <sup>1</sup> : EUR 2.5–2.9 bn.	<ul style="list-style-type: none"> <li>• Growing services market driven by new board and tissue lines, and demand for energy savings, efficiency improvements and reliability</li> <li>• Process technology project opportunities in board, tissue and energy driven by growing consumption, stricter environmental regulation and demand for clean energy</li> </ul>	<ul style="list-style-type: none"> <li>• Net sales: EUR 0.5 bn. (13% of total net sales of company)</li> <li>• Net sales range 2016–2020: EUR 0.4–0.5 bn.</li> <li>• Employees: 1,872</li> <li>• Valmet is the leader in pulp and paper process technology, and has a strong position in services and pulp and paper automation market</li> <li>• Strong competition from local and global competitors</li> </ul>
<b>Asia-Pacific</b>	Target market size <sup>1</sup> : EUR 2.0–2.5 bn.	<ul style="list-style-type: none"> <li>• Large geographical area covering multiple countries with differing market situations and dynamics</li> <li>• Service growth potential in both emerging and mature markets in growing installed base and market share</li> <li>• Process technology project opportunities in rebuilds, grade changes and new capacity in pulp, board and tissue and renewable energy projects in selected countries</li> <li>• China's restrictions on imported wastepaper and old corrugated containers, and trade disputes with US moving investment activity into Asia-Pacific</li> </ul>	<ul style="list-style-type: none"> <li>• Net sales: EUR 0.4 bn. (12% of total net sales of company)</li> <li>• Net sales range 2016–2020: EUR 0.3–0.4 bn.</li> <li>• Employees: 888</li> <li>• Leading position in pulp and paper process technology, and an increasing local presence</li> <li>• Increasing competition from Chinese players moving into Asia-Pacific region</li> </ul>

<sup>1</sup> Market size is defined as Valmet's over the cycle target market, meaning those geographical markets, product segments and customer industries where Valmet is currently competing or aiming to compete.

# VALUE CREATION

## INPUTS

### Resources we need to create value



Financial

#### Financial

- Total equity EUR 1,142 million
- Net interest-bearing debt EUR 149 million
- Cash and cash equivalents EUR 274 million



Natural

#### Natural

- Purchased components (mainly metals-based)
- Purchased raw materials (mainly metals, minerals, polymers and gas)
- Energy consumption 1,361 TJ
- Water consumption 2,477,000 m<sup>3</sup>



Human

#### Human

- Number of employees 14,046
- FTE<sup>1</sup> of subcontractors and supervised workers
- Investment in development and expertise
- Investment in occupational health and safety
- Investment in capabilities and competences



Infrastructure

#### Infrastructure

- 182 locations in 37 operating countries<sup>2</sup>
- 43 production units and more than 100 service centers
- 98 sales offices
- Suppliers in more than 50 countries



Intellectual

#### Intellectual

- Proven customer references
- Technology expertise
- Product portfolio
- 16 technology centers and pilot facilities
- R&D expenses EUR 75 million
- 1,300 protected inventions



Social and relationship

#### Social and relationship

- Open dialogue with stakeholders (e.g. customer events, investor meetings, supplier days, stakeholder surveys)
- Cooperation with approximately 40 universities and research institutes
- More than 35 memberships in associations
- Relationships and partnerships
- Collaboration with local communities



## BUSINESS MODEL



Our dedicated employees work close to our customers around the world



#### Customers

- Pulp and paper industry
- Energy industry
- Other process industries

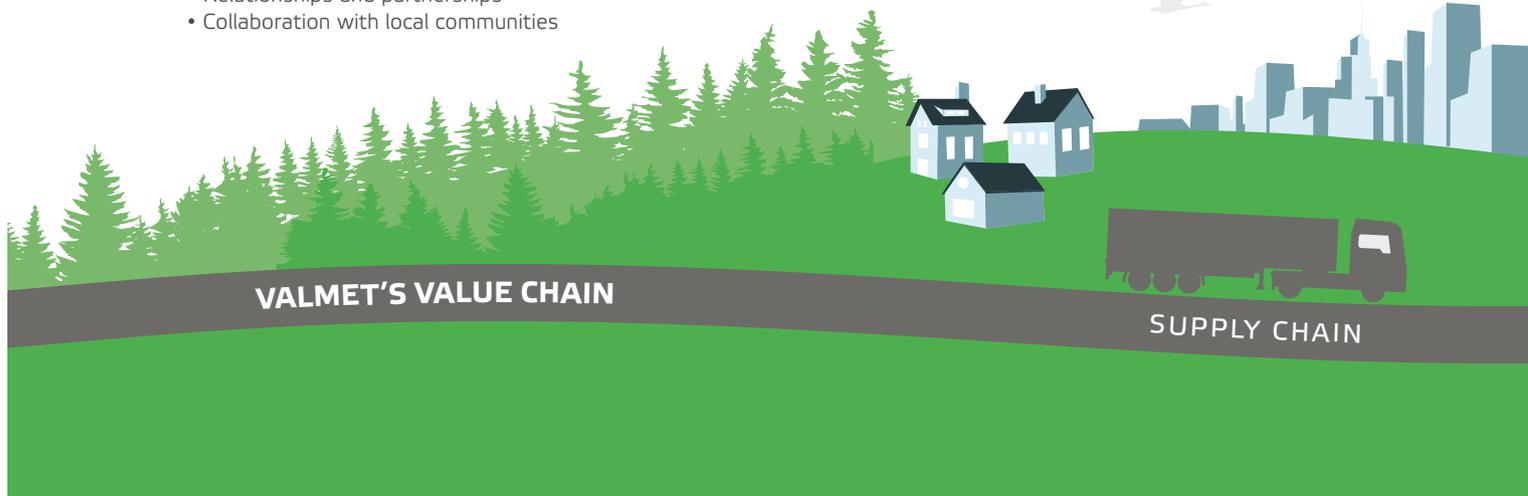
#### Key processes

- R&D
- Marketing
- Sales
- Engineering
- Procurement
- Production
- Delivery
- Service



Our employees, expertise and experience

**Valmet's Way Forward:**  
Mission, Strategy, Must-Wins,  
Vision and Values



VALMET'S VALUE CHAIN

SUPPLY CHAIN

## OUTPUTS

**We develop and supply technologies, automation solutions and services**

### Process technologies

- Pulping process equipment, process islands and complete pulp mills
- Individual board, tissue and paper machine sections, complete production lines and machine rebuilds
- Boiler islands, power plants, heating plants
- Environmental solutions
- Technologies for converting biomass into fuels, chemicals and materials

### Automation

- Distributed Control Systems (DCS)
- Quality Control Systems
- Analyzers and measurements
- Performance and service solutions
- Industrial Internet and remote solutions

### Services

- Spare parts and components
- Maintenance and shutdown management
- Outsourcing services
- Production consumables
- Process support and optimization
- Process upgrades
- Remote solutions and services

### Other outputs

- CO<sub>2</sub> emissions:
- Scope 1<sup>3</sup>: 19,100 tCO<sub>2</sub>
  - Scope 2<sup>4</sup>: 60,600 tCO<sub>2</sub>
  - Scope 3<sup>5</sup>: 1,917,000 tCO<sub>2</sub>

### Waste

- Non-hazardous waste 41,650 t
- Hazardous waste 2,840 t



## OUTCOMES

**We aim to enhance the positive impacts and minimize the negative impacts on society and the environment**

### Economic

- Wages and benefits EUR 891 million
- Payments to suppliers EUR 2,549 million
- Taxes EUR 75 million
- Support for non-profit organizations EUR 0.27 million
- Retained equity EUR 111 million
- Payments to shareholders and creditors EUR 136 million
- More efficient and profitable customer processes

### Social

- Direct and indirect employment
- Improved employee competences
- Direct and indirect occupational health and safety
- Customer loyalty
- Trust and reputation
- License to operate
- Influence on operating environment and regulations

### Environmental

- More efficient processes enable the use of fewer natural resources and reduce the CO<sub>2</sub> emissions in customers' operations
- Valmet's technologies and services enable the production of customers' products with less energy and water, fewer raw materials and improved flexibility in fuel source selection to replace fossil fuels with renewable ones



## CUSTOMERS' END PRODUCTS

**Our technologies help customers produce their products more sustainably**



Pulp



Paper



Board



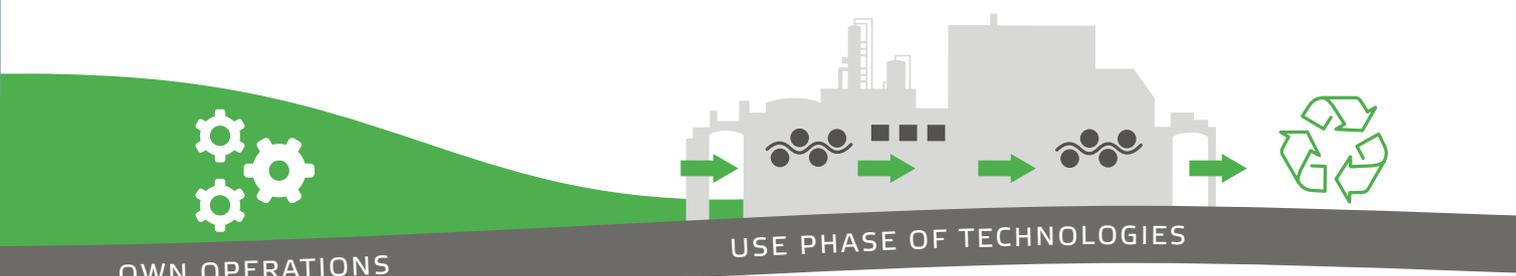
Tissue



Energy



Biomaterials and fuels



OWN OPERATIONS

USE PHASE OF TECHNOLOGIES

<sup>1</sup> Full-time equivalent.

<sup>2</sup> Includes technology centers.

<sup>3</sup> Scope 1 emissions are direct GHG emissions from sources that are owned or controlled by Valmet, such as fossil fuels burned on site.

<sup>4</sup> Scope 2 (location based) emissions are indirect GHG emissions resulting from the generation of electricity, heating and cooling, or steam generated off site but purchased by Valmet.

<sup>5</sup> Scope 3 data covers four selected relevant categories; category 1: purchased goods and services; category 4: upstream transportation and distribution; category 6: business travel and category 9: downstream transportation and distribution. All figures are from December 31, 2020, unless otherwise stated.



**READ MORE:**  
[valmet.com/  
 value-creation](http://valmet.com/value-creation)



# Valmet DNA Integrated Operations

## Tank 1



- 84 Methane number
- 158.73 Temperature
- 19.8 Send out t/h

Volume 21,660,00 t / 30,000,00 m<sup>3</sup>

Energy content 312925.46 kWh

Time to 10% 3d 14h 30 min

Temperature -158.73 °C

Density 0.47 t / m<sup>3</sup>

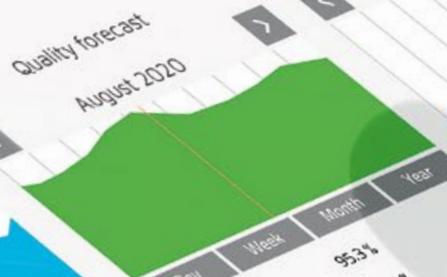
## Terminal 1



Maximum level 98.2%

Average level 62.7%

Minimum level 18.5%



Current quality 95.3%

Quality after next refill 90.5%

Maximum quality 98.1%

Average quality 75.2%

Minimum quality 86.3%

Incoming

03.08.	07:20	280,000	Source
03.08.	09:45	280,000	Source
12.08.	13:10	280,000	Source
17.08.	08:00	280,000	Source
22.08.	17:30	280,000	Source
25.08.	14:20	280,000	Source

Terminal info

04.08.	07:20	Info message 1
05.08.	09:45	Info message 2
13.08.	13:10	Info message 3
18.08.	08:00	Info message 4
23.08.	17:30	Info message 5
05.08.	09:45	Info message 2

# ▶ BUSINESS REVIEWS



# VALMET'S BUSINESS LINES

Valmet operates through four business lines. We have a strong position in all our businesses.

## SERVICES

Valmet's Services business line provides flexible and fit-for-purpose services to promote improved performance and reliability. Our Services offering increases the environmental efficiency and cost-effectiveness of Valmet's customers' production processes, while ensuring safe and reliable operations.

NET SALES,  
EUR MILLION

**1,327**

#1-2 IN SERVICES

ORDERS RECEIVED,  
EUR MILLION

**1,356**

## AUTOMATION

Valmet's automation solutions range from single measurements to mill- or plant-wide process automation systems. They are designed to maximize the profitability and sustainability of customers' businesses by improving production performance, raw material and energy efficiency, and cost-effectiveness.

NET SALES,  
EUR MILLION

**402<sup>1</sup>**

#1-3 IN AUTOMATION

ORDERS RECEIVED,  
EUR MILLION

**415<sup>2</sup>**

## PULP AND ENERGY

The Pulp and Energy business line provides technologies and solutions for pulp and energy production, as well as for biomass conversion and emission control. The technologies maximize the value of renewable raw materials, while increasing production efficiency and minimizing environmental impact.

NET SALES,  
EUR MILLION

**1,003**

#1-2 IN PULP  
#1-3 IN ENERGY

ORDERS RECEIVED,  
EUR MILLION

**934**

## PAPER

The Paper business line delivers complete production lines, machine rebuilds and process components for board, tissue and paper production. The technologies are designed for high process and environmental efficiency, flexibility, reliability and safety. The solutions have a modular structure with as much standardization as possible, and they are easy-to-use and cost-effective.

NET SALES,  
EUR MILLION

**1,076**

#1 IN PAPER  
#1 IN TISSUE  
#1 IN BOARD

ORDERS RECEIVED,  
EUR MILLION

**1,029**

<sup>1</sup> Including internal net sales.

<sup>2</sup> Including internal orders received.



# MARKET DATA BY BUSINESS

BUSINESS	MARKET SIZE <sup>1</sup> & GROWTH <sup>2</sup>	MARKET DRIVERS	PRODUCT GROUP	VALMET'S POSITION AND COMPETITION
Services	EUR 7.5 bn. ~1–2%	<ul style="list-style-type: none"> <li>Increasing pulp, paper<sup>3</sup> and energy production</li> <li>Demand for more efficient processes, maintenance and outsourcing of noncore operations</li> <li>Customers' decreasing resources of their own</li> <li>Size and gradually aging installed base, capacity increases in China, South America and Asia-Pacific</li> <li>Closures of non-competitive production lines</li> <li>Demand for Industrial Internet-based solutions</li> </ul>	Mill Improvements	<ul style="list-style-type: none"> <li>#1–2</li> <li>Andritz, Bellmer, Voith</li> </ul>
			Performance Parts	<ul style="list-style-type: none"> <li>#1–2</li> <li>Andritz, Kadant, Voith</li> </ul>
			Fabrics	<ul style="list-style-type: none"> <li>#6</li> <li>Albany, Andritz, AstenJohnson, Voith</li> </ul>
			Rolls and Workshop	<ul style="list-style-type: none"> <li>#1–2</li> <li>Andritz, Voith</li> </ul>
			Energy and Environmental	<ul style="list-style-type: none"> <li>#3–4</li> <li>Andritz, Babcock &amp; Wilcox, Sumitomo SHI FW</li> </ul>
Automation	EUR 2.1 bn. ~1%	<ul style="list-style-type: none"> <li>Aging machines and installed automation systems</li> <li>Investments in new pulp and paper mills and power plants</li> <li>Demand for raw material savings, process efficiencies and sustainability</li> <li>Demand for Industrial Internet-based solutions</li> </ul>	Distributed Control System (DCS)	<ul style="list-style-type: none"> <li>#2–3 in pulp and paper</li> <li>#2 in marine, #4 in energy and process industry target segments</li> <li>ABB, Emerson, Honeywell, Siemens, Yokogawa, Wärtsilä</li> </ul>
			Quality Management System (QMS)	<ul style="list-style-type: none"> <li>#1–2 in pulp and paper</li> <li>ABB, Honeywell, Voith</li> </ul>
			Analyzers and measurements	<ul style="list-style-type: none"> <li>#1 in pulp and paper</li> <li>ABB, Voith</li> </ul>
Pulp	EUR 1.7 bn. ~1%	<ul style="list-style-type: none"> <li>Growth in board and tissue consumption</li> <li>Need for virgin wood pulp. Decreasing availability of recycled paper and limitations to recycling rates</li> <li>Increased size of pulp lines and mills</li> <li>New applications for bio-based products</li> <li>Increasing environmental awareness and stricter regulations</li> </ul>		<ul style="list-style-type: none"> <li>#1–2</li> <li>Andritz</li> </ul>
Energy	EUR 2.0 bn. ~3% <sup>4</sup>	<ul style="list-style-type: none"> <li>Growth in energy consumption</li> <li>Demand for sustainable energy and shutdowns of coal capacity</li> <li>Modernization of aging plants</li> <li>Incentives and regulation-driven demand</li> <li>Environmental solutions and marine SO<sub>x</sub> regulation</li> </ul>		<ul style="list-style-type: none"> <li>#1–3</li> <li>One of few global players in bioenergy niche</li> <li>Energy: Andritz, Sumitomo SHI FW, regional competitors</li> <li>Marine: Alfa Laval, Wärtsilä, Yara</li> </ul>
Board	EUR 1.0 bn. ~2–3%	<ul style="list-style-type: none"> <li>World trade, e-commerce and emerging markets growth drive packaging</li> <li>Demand for lightweight board</li> <li>Shift from plastic packaging to renewable materials</li> <li>Conversions from paper to board</li> </ul>		<ul style="list-style-type: none"> <li>#1</li> <li>Voith</li> </ul>
Paper	EUR 0.4 bn. ~2%	<ul style="list-style-type: none"> <li>Increasing role of digital media reduces demand for printing and writing papers</li> <li>Demand for technology-driven efficiency improvements</li> </ul>		<ul style="list-style-type: none"> <li>#1</li> <li>Voith</li> </ul>
Tissue	EUR 0.7 bn. ~3–4%	<ul style="list-style-type: none"> <li>Increasing purchasing power and rising living standards</li> <li>Fast growth in emerging markets</li> <li>Demand for higher quality</li> </ul>		<ul style="list-style-type: none"> <li>#1</li> <li>Andritz, Voith</li> </ul>

<sup>1</sup> Paper: Market position and estimated market size calculated as average during 2018–2020.  
P&E: Market position and estimated market size calculated as average during 2018–2020.  
SER: Market position and estimated market size calculated from year 2020.  
AUT: Market position and estimated market size calculated from year 2020.

<sup>2</sup> Long-term end market growth.

<sup>3</sup> Refers to board, paper and tissue, as well as other paper grades.

<sup>4</sup> Represents long-term bioenergy heat and power production growth.

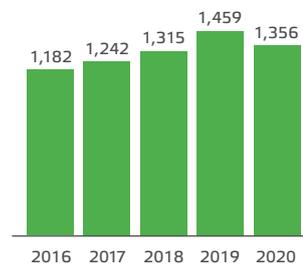


## Business Review

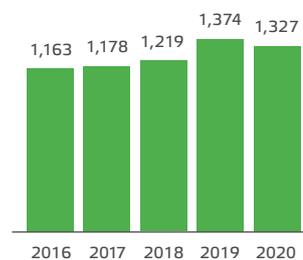
# SERVICES

Valmet's Services business line provides flexible and fit-for-purpose services to promote improved performance and reliability. Our Services offering increases the environmental efficiency and cost-effectiveness of Valmet's customers' production processes, while ensuring safe and reliable operations.

Orders received, EUR million



Net sales, EUR million





## SERVICES MARKET DRIVERS

- Increasing pulp, paper and energy production
- Demand for more efficient processes, maintenance and outsourcing of noncore operations
- Customers' decreasing resources of their own
- Size and gradually aging installed base, capacity increases in China, South America and Asia-Pacific
- Closures of non-competitive production lines
- Demand for Industrial Internet-based solutions

Valmet has been constantly developing its services to improve the reliability and performance of customers' production processes. Valmet's unique combination of process technology, services and automation and more than 200 years of industrial experience form a strong basis to help customers to achieve the desired maintenance and operational results.

The Services business line provides services and solutions mainly for the pulp, board and paper, tissue and energy industries, including spare and process parts, workshop and roll services, and fabrics all the way to field services, maintenance development and outsourcing, as well as process upgrades.

The services are complemented with Industrial Internet solutions on site and remotely. Valmet also provides learning options that give customers access to more than 150 courses and a variety of training services.

### **Designed to match customer's specific need**

Valmet's services offering is designed to match the customer's specific need, whether it's reduced energy and raw material costs, reduced process variability, optimized quality and production, or enhanced environmental performance.

Depending on the need, the service solution can be provided as a one-time delivery or as a longer-term partnership through service agreements.

Of the world's approximately 3,800 operating pulp and paper mills, more than half purchase services from Valmet annually. The top 20 customer corporations represent approximately 50 percent of the Services business line's net sales volume.

### **Valmet's way to serve – Collaboration over the lifecycle**

The key driver in 'Valmet's way to serve' concept, launched in 2020, is the lifecycle collaboration between the customer and Valmet. The aim of the concept is to provide the best customer experience at all



## SERVICES KEY INNOVATIONS IN 2020

- Remote field services
- Valmet's way to serve concept

the touchpoints of the customer journey. It emphasizes the value provided through collaboration over the lifecycle.

Valmet can offer the right combination of services and capabilities to match the customer need in each phase of the production process lifecycle. When planning the investment, the foundation for optimized operational results for the production process to come can be set. Services can help to accelerate the start-up curve when ramping up the production. By working together in maintenance and operations, maximized reliability and optimized performance of the production process can be ensured.

Services are offered globally remotely or on site through Valmet's approximately 100 service centers and more than 6,000 service professionals. When delivering services, Valmet's professionals are bound to the core commitments: Safety comes first, Close to you, People you can trust and Solutions to your needs.

### Improving the competitiveness of the business

In 2020, Valmet initiated measures to improve the long-term competitiveness of the Services business line especially related to Mill Improvements and Rolls and Workshop Services business. The aim is to improve the profitability and competitiveness of the respective businesses by optimizing the local presence globally and streamlining the way of operating. Measures were also initiated due to the global COVID-19 pandemic, which led to a reduced workload around the world, especially in the services business, which is carried out close to our customers.

The measures were implemented during the year and they included permanent and temporary lay-offs and the restructuring of selected operations.

Valmet also decided to relocate the dryer fabric and wide filter fabric production from Finland to Portugal. This move will secure the Services' Fabrics business unit's profitability and future competitiveness.

### Field Services go remote

During the COVID-19 pandemic travelling to the customer sites has been challenging. Valmet's Remote Field Services has made technology and process experts available around the world, regardless of the location or timezone.

With advanced remote connections and tools, Valmet can offer maintenance services like troubleshooting and inspections, support maintenance shutdowns, conduct pre-audits before scheduled site visits, or simply provide additional support in daily operations as required. The remote services option has proven very valuable for many customers, ensuring the continuity of their operations.



**READ MORE:**

[valmet.com/servicesbusiness](https://valmet.com/servicesbusiness)



## A DIGITAL LEAP IN FIELD SERVICES

In the summer of 2020, Valmet's Field Services professionals started to use @Field, a new digital application, which unifies and simplifies the global planning, dispatching and executing of field service operations. The application was launched in the middle of the COVID-19 pandemic and could immediately help Valmet's customers through remote support in global field service cases.

"The new platform will further improve Valmet's capability of providing world-class services to our customers by increasing workforce transparency and remotely connecting our on-site field service professionals with Valmet Performance Centers. This will make delivering the desired services to customers' sites

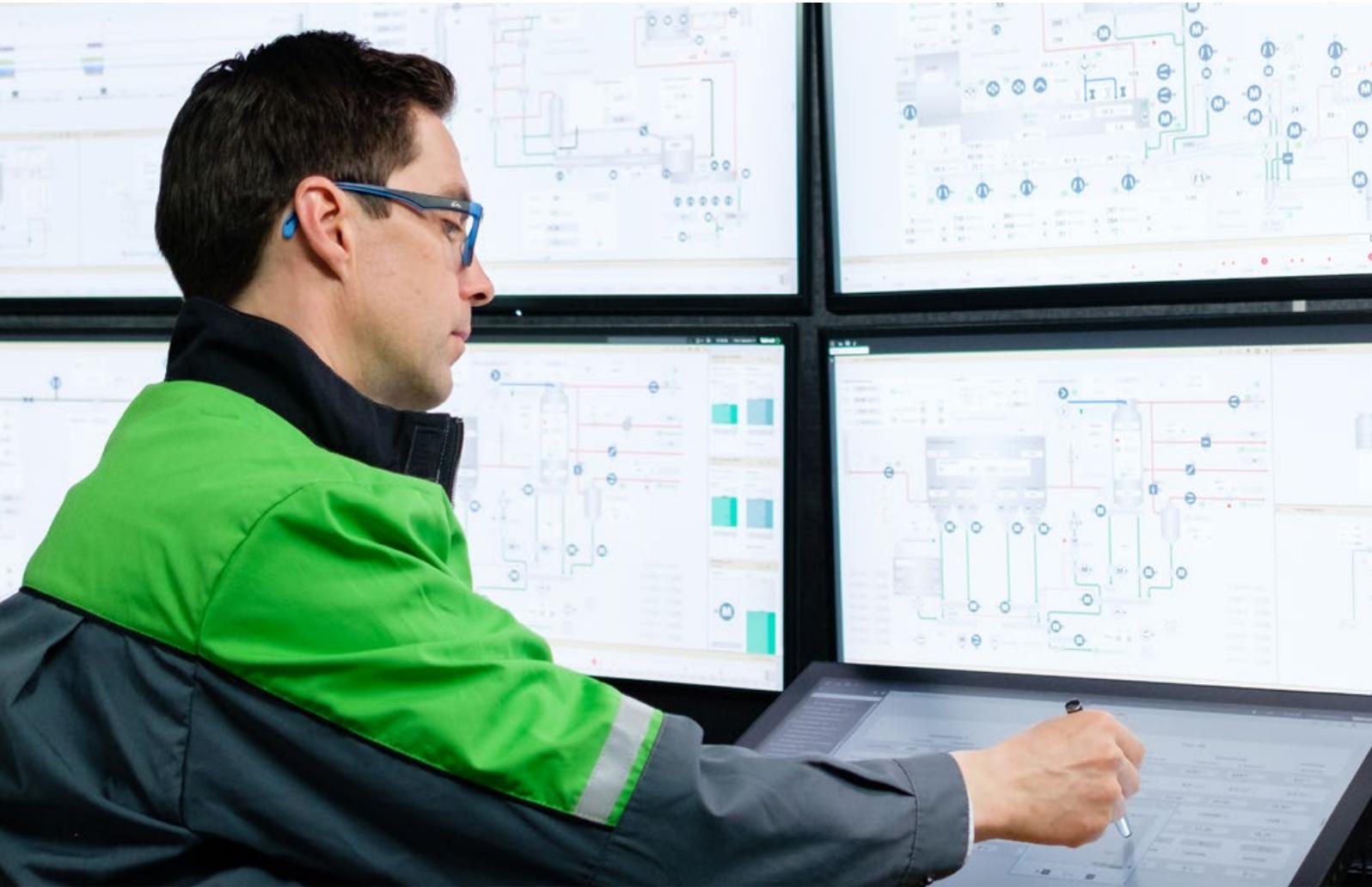
faster and more accurate. It will also allow us to better predict and advise on services, and develop shared maintenance and service roadmaps for our customers' equipment and processes," says **Anders Öhrblad**, Director, Field Services Growth, Valmet.

Operating on a single platform supports a more uniform and similar customer experience, regardless of location. Guidelines, manuals and checklists are integrated in the digital tool, making them easily available. The platform allows excellent remote connectivity between service technicians and customers.

The application helps Valmet's planners to allocate the best available resources at all times, ensuring excellent customer service – every time and everywhere. The digital platform also allows the alignment of health, safety and environmental principles and their embedding in the service delivery in a logical and user-friendly way, contributing to the safety of technicians, sub-contractors and customers' personnel.



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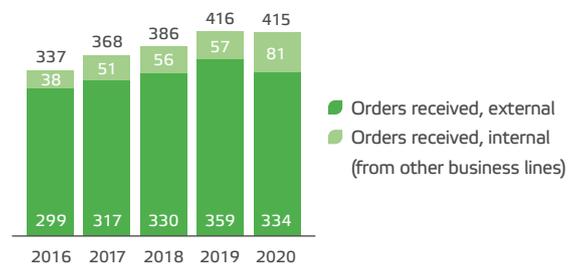


## Business Review

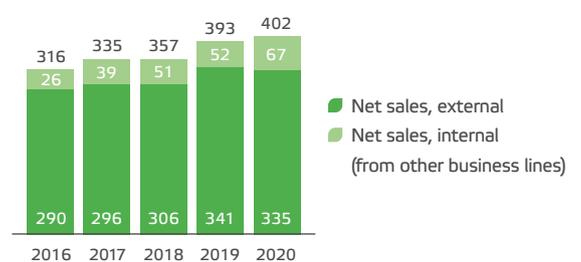
# AUTOMATION

Valmet's automation solutions range from single measurements to mill- or plant-wide process automation systems. They are designed to maximize the profitability and sustainability of customers' businesses by improving production performance, raw material and energy efficiency, and cost-effectiveness.

**Orders received, EUR million**



**Net sales, EUR million**





## AUTOMATION MARKET DRIVERS

- Aging machines and installed automation systems
- Investments in new pulp and paper mills and power plants
- Demand for raw material savings, process efficiencies and sustainability
- Demand for Industrial Internet-based solutions

The Automation business line supplies and develops automation and information management systems, applications and services to companies in the pulp, paper, board, tissue, energy, and other process industries, and marine. The main products and solutions are Distributed Control Systems (DCS), industrial applications, Quality Control Systems (QCS), analyzers and measurements, Industrial Internet solutions and automation services.

### Designed to maximize the profitability and sustainability of customers' businesses

Valmet's automation solutions are designed to maximize the profitability and sustainability of customers' businesses by improving production performance, cost-effectiveness, and energy and material efficiency. Valmet has delivered close to 5,000 automation systems and more than 100,000 analyzers and measurements. More than 1,200 power plants worldwide feature Valmet's process automation.

<sup>1</sup> Including internal net sales.

<sup>2</sup> Including internal orders received.

The Automation business line employs nearly 2,000 professionals working in more than 30 countries. The most important geographical market for the Automation business line is EMEA (Europe, Middle East and Africa), and the second largest area in terms of net sales is North America. Almost half of the automation business consists of services.

Approximately 20 percent of the Automation business line's net sales are generated when automation is sold as part of Valmet's process technology project delivery. The remaining 80 percent of the business line's net sales are generated from solutions and services sold directly to customers.

### New solutions and deliveries worldwide

In 2020, Valmet's Automation business line launched new products and made new deliveries worldwide.

The main new automation product launch in 2020 was the renewed Valmet IQ quality management system for the pulp, tissue, paper, board, and converting industries. The renewed system allows paper-



## AUTOMATION KEY INNOVATIONS IN 2020

- Renewed Valmet IQ quality management system
- Remote operations and service capabilities
- Data-driven Industrial Internet solutions
- Valmet Microwave Consistency Measurement

makers to optimize quality through the entire value chain, from fiber to finished product, enabling improved process performance and increased savings through the process. The new capabilities of Valmet IQ increase the degree of automation and reduce the human role in the process. Despite the pandemic, the new solution sold in record volumes.

Valmet DNA User Interface, introduced late 2019, was part of many automation system deliveries. The new web-based user interface for Valmet DNA automation system extends the use of the system beyond the traditional control room. It concentrates on making the most meaningful information available to all process automation users according to their roles, regardless of their location. Having relevant information easily at hand supports faster decision making. This leads to efficiency and helps to achieve savings throughout the process.

During the year, the Automation business line also strongly developed its remote operations and service capabilities, managing customer delivery timelines well, with minimal impact from the pandemic.

As part of the continuous improvement of its information and cybersecurity practices, the Automation business line received the ISO 27001 information management certificate.

### **Full range of new data-driven Industrial Internet solutions**

At the beginning of the year, Valmet introduced a full range of new data-driven Industrial Internet solutions for pulp, board, paper, tissue and energy producers. The Valmet Industrial Internet (VII) solutions combine advanced monitoring and prediction applications, Advanced Process Controls (APC), dynamic process simulators and remote services from Valmet Performance Centers in comprehensive solutions that provide tangible benefits to customers.

The VII solutions have been created for the specific needs of pulp, board, paper, tissue and energy producers. The purpose is to efficiently utilize data and Valmet's expertise to reduce energy consumption, improve chemical and environmental efficiency, optimize pulp and paper quality, increase process reliability, maximize production and enable the efficient management of the customer's equipment fleet.

Remote services from Valmet's eight Performance Centers are a key part of the VII solutions. The Performance Centers make Valmet's expertise easily available for customers through remote connections and tools. Customers can collaborate with Performance Center experts, access the Industrial Internet applications, follow up their Key Performance Indicators and see performance reports via the Valmet Customer Portal.



**READ MORE:**

[valmet.com/automationbusiness](https://valmet.com/automationbusiness)



## DEVELOPING THE WORLD'S FIRST QUALITY CONTROL SYSTEM FOR CORRUGATORS

After many years of successful cooperation in automation solutions for paper production, the Saica Group and Valmet started to develop automation technology for corrugated board production. Saica's experience and expertise in corrugating process and moisture management was combined with Valmet's technology and control development expertise. As a result, Valmet has now introduced a quality control system (QCS) for the corrugated board industry.

The development work started in 2014 with the delivery of Valmet IQ Moisturizers to Saica's Viana corrugator plant in Spain. Traditionally, corrugator controls have been based on temperature reading technology, but Saica Pack, the business division producing corrugated board within Saica Group, recognized that further improvements were possible. Together with Valmet, the goal was to develop an advanced automatic quality control system for corrugators.

The full QCS system has been up and running in Viana since 2018. It uses a combination of moisture and temperature measurements with the IQ Converting Moisturizer and existing heating elements. In fully automatic control, it improves gluing, reduces fluting defects or washboard, and eliminates warp in the final product.

Since the first corrugator QCS, Valmet has developed the image analysis-based Valmet IQ Warp Measurement, which has been successfully installed in similar systems in other Saica Group packaging converting plants. A tremendous help during this first corrugator QCS delivery has been the remote connection that allows Valmet specialists in Finland to see in real time the same screens and information that the operators are working with.



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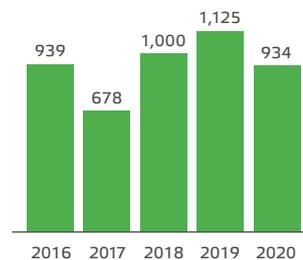
## Business Review

# PULP AND ENERGY

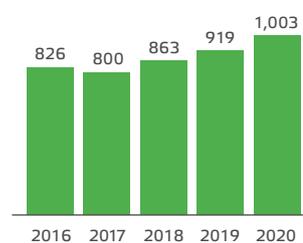
The Pulp and Energy business line provides technologies and solutions for pulp and energy production, as well as for biomass conversion and emission control.

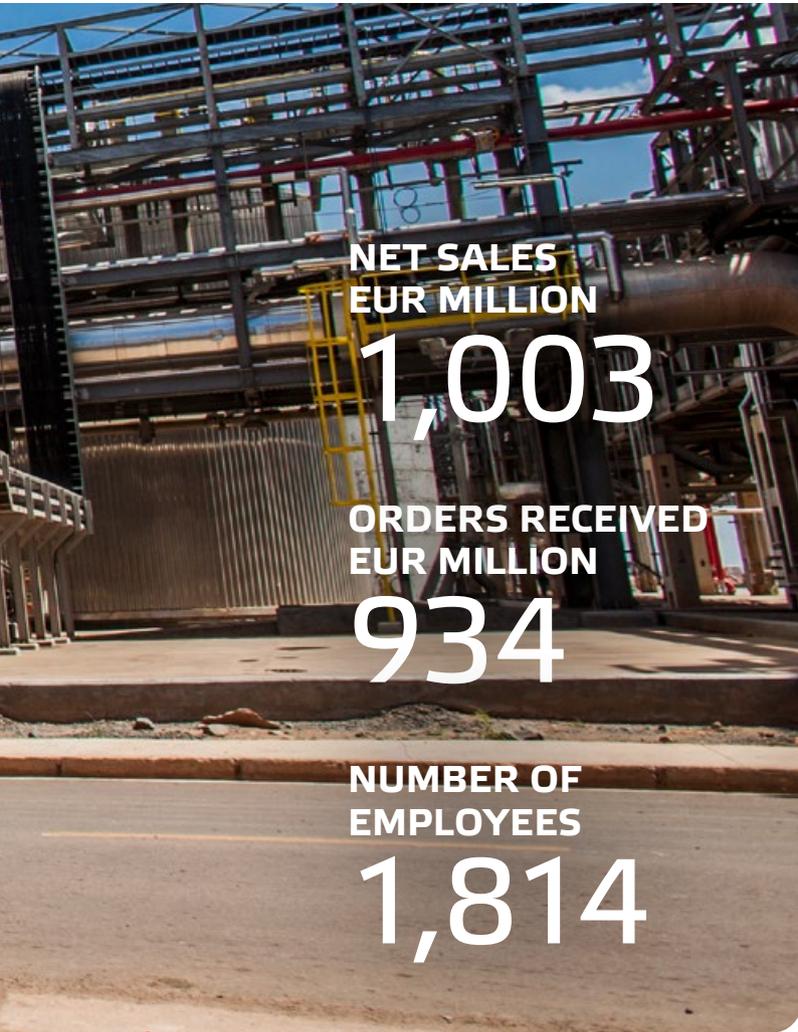
The technologies maximize the value of renewable raw materials, while increasing production efficiency and minimizing environmental impact.

Orders received, EUR million



Net sales, EUR million





NET SALES  
EUR MILLION

1,003

ORDERS RECEIVED  
EUR MILLION

934

NUMBER OF  
EMPLOYEES

1,814

## PULP AND ENERGY MARKET DRIVERS

### Pulp

- Growth in board and tissue consumption
- Need for virgin wood pulp. Decreasing availability of recycled paper and limitations to recycling rates
- Increased size of pulp lines and mills
- New applications for bio-based products
- Increasing environmental awareness and stricter regulations

### Energy

- Growth in energy consumption
- Demand for sustainable energy and shutdowns of coal capacity
- Modernization of aging plants
- Incentives and regulation-driven demand
- Environmental solutions and marine SO<sub>x</sub> regulation

The Pulp and Energy business line supplies complete pulp mills and process equipment for chemical and mechanical pulp production, as well as biomass- and waste-fueled power plants, boiler islands and related environmental systems. The business line’s customers are mainly pulp producers and power and heat producers. The most important geographical markets are Europe, South America and Asia.

### Resource-efficient and clean pulp and energy technologies

Valmet’s solutions for pulp production are designed for high raw material efficiency and low chemical and water consumption. Pulp is used mainly as a raw material in producing various paper grades, including board, tissue and printing paper. It is also used for other applications such as textiles and hygiene products.

Valmet’s energy products include boilers, gasifiers, environmental protection systems and technology rebuilds. Valmet is a leading global supplier of biomass-based heat and power generation solu-

tions. The company also supplies complete medium-scale heat and power plants that focus on using biomass and sorted waste.

Valmet’s emission control solutions are designed to secure safe operation with low emissions. In addition to pulp and energy applications, it has developed the technology to clean marine exhaust gas emissions.

### Developing new biomass conversion technologies

Valmet has taken important steps in commercializing new biomass conversion technologies such as lignin extraction technology for replacing fossil chemicals, and in biomass pretreatment for producing bioethanol and biochemicals. Valmet is increasing its development work in this area with an investment in a second Pretreatment System BioTrac pilot plant in Sweden.

In addition to developing new technologies, development work is done in order to improve the performance and competitiveness of existing products. An example of this work is the ongoing

## PULP AND ENERGY KEY INNOVATIONS IN 2020

- Airborne Dryer
- MC-Ozone for bleaching
- 2-Stage Lime Kiln Cooler
- Marine Scrubber Water Treatment

modularization project in the Energy business unit for selected boiler and air emission control products.

Valmet has its own research and development (R&D) centers and pilot machines that are used both for Valmet's own technology development, and to help customers in theirs, as well as in planning their investment projects. Valmet's R&D centers also include well-equipped analytical laboratories that perform physical and chemical analyses of raw materials, products and process liquors. In 2020, the Pulp and Energy business line completed an investment in the pulp drying pilot facility in Inkeroinen, Finland.

### Delivering projects worldwide

In 2020, the Pulp and Energy business line received multiple orders worldwide. The orders included the delivery of the key process islands for Lenzing's and Duratex's joint venture, LD Celulose S.A., in Brazil. Valmet's delivery includes a fiber line, a pulp drying and baling line, an evaporation plant, a white liquor plant and a mill-wide automation system. The value of a delivery of this size and scope is typically around EUR 200–250 million.

Valmet also signed a preliminary agreement with Metsä Fibre, which is part of Metsä Group, to deliver key technology, covering all the main process islands and automation systems, to Metsä Fibre's planned Kemi bioproduct mill in Finland. The final agreement is subject to Metsä Fibre's investment decision. The estimated value of Valmet's anticipated delivery for Metsä Fibre's planned Kemi bioproduct mill, covering the core equipment supplied by Valmet, is about EUR 350–400 million.

In Europe, Valmet is delivering several new boilers and boiler rebuilds to enable the transition from coal to biomass-based energy production. For example, in Finland, Valmet will deliver a biomass-fired boiler plant to Tampereen Sähkölaitos Oy's Naisentalhti power plant in Tampere and a flue gas condensing plant to Helen Ltd's Vuosaari bioenergy heating plant. In Austria, Valmet is delivering a complete boiler plant to Norske Skog's paper mill in Bruck an der Mur, and in Poland, Valmet is converting a lignite-fired boiler into a biomass-fired boiler for Zespół Elektrowni Pątnów-Adamów-Konin SA (ZE PAK) at the power plant in Konin.

Valmet has successfully delivered five biomass and multifuel boilers to Japan, with the last start-up and takeover in early 2021.



**READ MORE:**  
[valmet.com/pulpandenergy](https://valmet.com/pulpandenergy)



## FIRST CONTINUOUS COOKING G3 AND LIGNOBOOST XS DELIVERY IN PROGRESS IN BRAZIL

Valmet has a successful history of collaboration with Klabin in Brazil. Valmet delivered drying machines for the company’s Puma I project for producing softwood market pulp and fluff pulp.

In 2020, Valmet has been working with the delivery of key process technologies for Klabin’s massive Puma II project agreed in 2019. On top of a Valmet OptiConcept M kraftliner machine using 100 percent eucalyptus pulp, Valmet has focused on delivering a cooking and fiberline based on its new Continuous Cooking G3™ system and a pulp dryer rebuild. The cooking solution is tailored for unbleached high-kappa eucalyptus pulp production. Furthermore, the delivery includes

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Valmet’s DNA Automation System, IQ Quality Management Solution, Operator Training Simulator and Industrial Internet (VII) solutions.

“Cooking is the heart of a fiberline – quality is made in the digester and then complemented in the rest of the process. Our choice was not only based on machinery or cost, but on our previous good cooperation, combined with Valmet’s solid reputation for technology and its global team with local service support here in Brazil,” **Francisco Razzolini**, Director for Industrial Technology, Innovation, Sustainability and Projects at Klabin explains.

Furthermore, Valmet LignoBoost XS lignin extraction plant was installed in Klabin’s Technology Center in November 2019, marking the first LignoBoost installation in South America. The new demonstration-scale plant helps Klabin to further study the possibilities of lignin.

“Lignin performance has been constant, and we can obtain a product with good purity and a low degree of ash that can contaminate the lignin. With this work, we are eliminating uncertainty in our process and preparing ourselves for market growth and the future scaling-up of production,” Razzolini concludes.

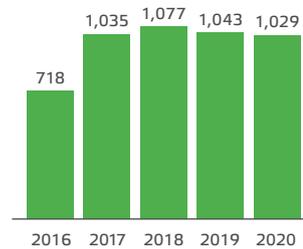


## Business Review

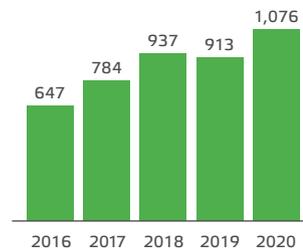
# PAPER

The Paper business line delivers complete production lines, machine rebuilds and process components for board, tissue and paper production. The technologies are designed for high process and environmental efficiency, flexibility, reliability and safety. The solutions have a modular structure with as much standardization as possible, and they are easy-to-use and cost-effective.

Orders received, EUR million



Net sales, EUR million





## PAPER MARKET DRIVERS

### Board

- World trade, e-commerce and emerging markets growth drive packaging
- Demand for lightweight board
- Shift from plastic packaging to renewable materials
- Conversions from paper to board

### Paper

- Increasing role of digital media decreases demand for printing and writing papers
- Demand for technology-driven efficiency improvements

### Tissue

- Increasing purchasing power and rising living standards
- Fast growth in emerging markets
- Demand for higher quality

The Paper business line supplies board, tissue and paper machinery, equipment and machine rebuilds for the board, tissue and paper industries. The equipments and solutions are designed to be fit-for-purpose with high efficiency, focusing especially on flexibility and safety. This allows customers to alter production quickly and concentrate on producing the end-products with the highest demand and increased competitiveness on the market.

Demand for new board and paper machines has been especially lively in China, and to some extent in Asia-Pacific, Europe and North America. Valmet's tissue making lines are delivered to tissue producers worldwide.

### Paper machine's lifetime can be several decades

Board, tissue and paper are used for a wide variety of purposes, including packaging applications, hygiene products such as facial and bathroom tissue and paper towels, and writing and printing papers. Board, tissue and paper are produced from virgin or recycled pulp.

The papermaking process includes several stages in which the pulp slurry is converted into board, tissue or paper through forming, pressing, drying and sizing. In addition, a paper mill includes technology and equipment for stock preparation, air systems, chemical handling and paper finishing, such as reeling and winding as well as automation solutions.

The lifetime of a paper machine can be several decades. In addition to new machines, there is also a market for machine rebuilds and improvements to increase production and improve end-product quality. Also converting an existing paper machine to produce a different paper grade or relocating a paper machine is part of the offering. Modern paper machines are often built to be flexible and allow for the production of various paper grades.

### Board and tissue machines represent the largest share of orders

As orders for traditional paper machines have decreased in recent years due to reduced demand, especially for printing and writing paper grades, board and tissue machines have represented a larger



## PAPER KEY INNOVATIONS IN 2020

- Remote support in machine lines' start-ups
- Remote pilot trials
- Cooperation with Metsä Spring in developing 3D fiber products

percentage of Valmet's order book. However, demand for paper machine rebuilds continues to be strong.

In 2020, Valmet's Paper business line received multiple major orders worldwide, especially from China. The orders included a fine paper making line including stock preparation and an extensive scope of automation to Asia Symbol (Guangdong) Paper in XinHui, China and Sun Paper in Beihai, China, as well as a new OptiConcept M container board making line with an extensive automation package to Shanying Paper, Guangdong at its Zhaoqing mill in China.

### The acquisition of PMP Group

In October 2020, Valmet completed the acquisition of PMP Group in Poland, a process technology and service provider for tissue, board and paper machines globally. PMP's focus has been on complete small and medium-sized tissue machines, and board, tissue and paper machine rebuilds. The acquisition added about 650 new employees to Valmet, the majority of whom are located in Poland, and the rest in China, the United States and Italy.

The acquired business became part of Valmet's Paper business line. The former PMP's technology and services portfolio for small and medium-sized tissue, board and paper machines complements Valmet's paper technology and services for wide and fast machines and rebuilds.

### Remote support in start-ups and pilot trials

Thanks to remote connections and the active use of digital tools, Valmet has been able to help papermakers all over the world with their machinery start-ups even during the COVID-19 travel restrictions.

From its Performance Centers, Valmet's remote experts have been able to offer increased remote assistance to paper, tissue and board makers all over the world at a time when onsite visits have not been an option. This has ensured that both rebuilt machines and totally new production lines have been started up as planned.

Valmet's pilot facilities for board, tissue and paper making and finishing are also equipped with online video monitoring systems, making trials available remotely. With the help of remote piloting, customers can effectively proceed with their investment projects during restricted travel conditions. Through a video connection, Valmet can demonstrate the most essential pilot trial elements to customers. Factory acceptance tests (FAT), mechanical checkouts and customer inspections are also offered remotely.



**READ MORE:**  
[valmet.com/paper](https://valmet.com/paper)



## VALMET AND METSÄ SPRING COOPERATE IN DEVELOPING NOVEL 3D FIBER PRODUCTS

In August 2020, Valmet and Metsä Group's innovation company Metsä Spring announced the building of a pilot plant in Äänekoski, Finland. The target of the project is to develop a new wood-based 3D fiber product for the global forest industry.

The plant produces ready-made 3D fiber packages directly from wet wood fiber pulp without intermediate steps. As such, the new environmentally friendly 3D fiber products will be ready for delivery to end customers. Disposable plates are examples of 3D fiber products.

➤ **READ MORE:**  
[valmet.com/board-and-paper-articles](https://valmet.com/board-and-paper-articles)

"Valmet, as the technology leader in the industry, brings unique technology and product development expertise to the project. The cooperation project with Metsä Spring is a great opportunity to develop new types of solutions supporting sustainable development, such as wood-based products that can replace packaging made from fossil raw materials," says **Petri Rasinmäki**, Director, Board and Paper Machines technology unit at Valmet.

Renewable, responsibly grown and pure wood fiber is used as the main raw material for the 3D fiber products. The products are recyclable, and, if recycling is impossible, they will also be biodegradable. Lightweight construction and new manufacturing technology minimize energy and raw material requirements, as well as supply chain logistics.

According to a customer survey, there is already significant demand for the product – and it is expected there will be in the future, too.

The plant is scheduled to be commissioned by the end of 2021, and will continue to be used to research and develop the production method and 3D products.





➤ STRATEGY

# STRATEGY

Valmet's Way Forward is our strategic roadmap. It summarizes the identified megatrends, our mission and strategy, and the related strategic actions that describe how we aim to achieve our vision of becoming the global champion in serving our customers.

Valmet's mission is to convert renewable resources into sustainable results, and this defines our core purpose. With our solutions, our customers can refine renewable raw materials into sustainable and environmentally responsible products.

Valmet's business environment is impacted by megatrends that create both opportunities and risks. We have defined three key megatrends that influence our strategic choices in the areas of resource efficiency, digitalization and consumer behavior. Our values and sustainability agenda are closely linked to our strategy and Must-Wins.

Valmet focuses on customers in the pulp, paper and energy industries. We are committed to improving our customers' performance

through our unique offering, which combines process technologies, automation and services. Our Services and Automation businesses operate in relatively stable markets driven by the size of the installed technology base and customer mill operating rates.

Our process technologies comprise board, paper and tissue machines, as well as pulp mills and heat and power boilers, which are all driven by our customers' new investments. All our businesses serve the same customer base, which enables us to deliver customer benefits through our fully combined offering. In addition to the core customer industries, our Automation business serves other process industries and the marine industry.

## VALMET'S WAY FORWARD

The infographic is set against a background illustration of a sustainable industrial landscape. It features green forests, a factory with smokestacks, a city skyline, and a person holding a document. The content is organized into several key sections:

- OUR MISSION:** Converting renewable resources into sustainable results.
- OUR STRATEGY:** Valmet develops and supplies competitive process technology, services and automation to the pulp, paper and energy industries. We are committed to moving our customers' performance forward with our unique offering and way to serve.
- OUR MUST-WINS:**
  - Customer excellence
  - Leader in technology and innovation
  - Excellence in processes
  - Winning team
- GROWTH ACCELERATORS:**
  - Field services
  - Industrial Internet and digitalization
- OUR VISION:** To become the global champion in serving our customers.
- 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
  - Digitalization and new technologies
  - Urban, responsible and global consumers

## MEGATRENDS



### A RESOURCE-EFFICIENT AND CLEAN WORLD

Climate change, environmental awareness and resource scarcity are driving the need to improve resource efficiency and reduce emissions.



### DIGITALIZATION AND NEW TECHNOLOGIES

Digitalization, automatization and new, high-impact technologies are driving efficiency and new business models.



### URBAN, RESPONSIBLE AND GLOBAL CONSUMERS

Urbanization, increasing living standards, changing demographics, and globalization are driving changes in consumer behavior and our customers' demand.

### Strategy implementation

We implement our strategy through our Must-Wins, which structure our strategy work and tell us where we need to focus to achieve our goals. After a successful launch in 2018, we have continued the implementation of our growth programs, called "Growth Accelerators," which focus on the opportunities in field services and the Industrial Internet and digitalization. To drive accelerated development and growth of selected businesses, we introduced a new growth program called "Business Accelerator." During 2020, Valmet continued to implement its Sustainability360° agenda as part of its strategy.

### Further developing customer excellence

As part of our "Customer excellence" Must-Win, we focus on providing the best customer service by having strong, capable and committed teams close to customers, and by providing customer benefits through our integrated offering, which combines process technology, automation and services.

In 2020, we further developed our services approach by introducing Valmet's Way to Serve concept. Furthermore, we clarified the offering structure and concept for our Automation business to enhance future growth.

We systematically develop our sales capabilities and common processes to drive growth and profits. We continue to develop our local sales and service presence, as well as to strengthen key account management. We are also making targeted efforts to grow in segments that show higher growth, as well as in segments where Valmet currently lacks a strong presence.

### Customer-driven solutions

Our "Leader in technology and innovation" Must-Win focuses on developing and providing products and services that reduce our customers' operating and investment costs, while developing solutions that better meet their needs.

Improving our product cost is important for improving our competitiveness – and Valmet's profitability. We achieve this through

the increasing modularization, standardization and optimization of our product design, and by enhancing our delivery chain.

We are continuously renewing our existing product portfolio, while developing innovative solutions that improve our customers' performance and create new revenue streams for both our customers and Valmet. Our close collaboration with customers plays an important role in developing our offering.

### Efficient global processes

Our "Excellence in processes" Must-Win focuses on continuously increasing our efficiency and cost competitiveness by improving our processes and operations. We have continued to globally unify our processes as part of our global management system implementation.

Our global project management and project delivery initiative aims at the continuous improvement of gross profit by strengthening project management and execution through developing project and site management competences and utilizing common tools and processes.

To improve the quality of our products, processes and services, we are developing the way we operate and manage quality in our own operations and supply chain. In health, safety and environment (HSE), we continue systematically to strengthen safety awareness to drive zero harm for people and the environment by implementing best-in-class HSE management practices, tools and systems.

In procurement, we are targeting cost savings and better quality by further developing our global category management and supplier base, enhancing our sustainable supply chain, and focusing on the quality of supply and delivery performance. To keep our cost structure competitive, we continuously aim to increase our flexibility and optimize our own operations and supply chain to respond to changes in demand.

The implementation of a new and centralized ERP (enterprise resource planning) system continued in 2020 across Finland, Sweden and France, including preparations for roll-outs in Valmet's other

locations. With this new ERP system, we are targeting benefits through the unification of key processes and ways of working across Valmet.

### Performance-driven teams close to our customers

Our “Winning Team” Must-Win initiative seeks to ensure that Valmet’s capabilities are globally balanced and close to our customers, and that we build engaged and performance-driven teams. We are systematically developing employee engagement and implementing targeted actions based on the OurVoice employee engagement survey. As a team, we were able to successfully adapt to the changed work environment due to the COVID-19 pandemic to continue to deliver customer projects and stay connected as colleagues.

In 2020, we continued to benefit from our global training programs, which are designed to support the execution of our strategy, as well as to drive change within the organization. We renewed and aligned our approach to strategic resource planning, which will serve as a foundation for future strategic competence and workforce development. We also simplified and expanded our talent review process, leading to a record number of Valmet employees being evaluated and successors identified.

### Accelerating growth with improved profitability

Since 2018, we have run growth programs in field services, the Industrial Internet and digitalization called Valmet “Growth Accelerators.” These programs are built on the solid basis created by our Must-Wins and aim to further accelerate our strategy of growth with improved profitability.

Field services are an integral part of delivering our distinctive service experience and moving our customers’ process reliability and

performance forward. By enhancing our maintenance and shut-down services, strengthening our global network of field service experts, and developing our processes and tools both at the customer interface and internally, we aim to make our field services the differentiator of our service business.

We are striving to realize the full benefits of digitalization in serving our customers, as well as internally. In our Industrial Internet offering, we combine our strong expertise in process technology, automation and services with data-driven solutions to make tangible improvements to the performance of our customers’ mills or plants. We are developing our digital channels and services to offer a great customer experience and better service throughout the customer journey. Additionally, we are building and launching new digital platforms and tools to drive efficiency, quality and productivity.

The exceptional year caused by the pandemic accelerated the deployment of Industrial Internet solutions with our customers, as well as the digitalization of internal activities to support remote working opportunities. Among other things, we carried out fully remote start-ups and maintenance shutdowns.

### Business Accelerators

In the spring of 2020, we introduced a new growth program called “Business Accelerator” to drive and support the development and growth of selected businesses. The focus of the growth plans is mainly on commercial activities such as finding new applications or customer segments for existing products, as well as expanding our offering. The program includes four businesses: Filtration, Emission Control, Biomass Concepts and Nonwovens.

## STRATEGY HIGHLIGHTS 2020

- Net sales and comparable EBITA increased in 2020. Profitability also improved to 9.8 percent.
- New financial targets for Comparable EBITA margin and return on capital employed were introduced.
- Valmet received major new orders, including a new dissolving pulp mill for Lenzing’s and Duratex’s joint pulp mill project in Brazil.
- Valmet signed a preliminary agreement to provide key technology covering all main process islands and automation systems for Metsä Fibre’s planned bioproduct mill in Kemi, Finland.
- Valmet received several new orders for paper and board production lines in China, including the world’s fastest coated boardmaking line for APP’s Qinzhou mill and fine papermaking lines with stock preparation for Sun Paper Beihai mill and to Asia Symbol XinHui mill.
- Valmet launched more than 30 Valmet Industrial Internet (VII) solutions and a new web-based user interface for Valmet DNA automation system.
- Growth Accelerators took further steps in digitalization. Valmet implemented the new digital platform to support, streamline and develop its field services. The company also continued to develop its Performance Centers.
- New Business Accelerators were introduced to drive accelerated development and the growth of Filtration, Emission Control, Biomass Concepts and Nonwovens businesses.
- As a recognized leader in sustainability, Valmet was included in the Dow Jones World and Europe sustainability indices for the seventh consecutive year. Valmet also received an A- rating in the CDP Climate rating.
- The acquisition of PMP Group strengthened Valmet’s competences and offering in small and medium-sized tissue, board and paper machines, complementing Valmet’s current paper technology and services for wide and fast machines and rebuilds.
- On July 1, 2020, Valmet acquired 14.88 percent of Neles Corporation, an industry-leading flow control manufacturer listed on Nasdaq Helsinki, and gradually increased its ownership further to 29.5 percent, to become the biggest shareholder.

## RESEARCH AND DEVELOPMENT

Customer needs and global megatrends, such as pursuing a more resource-efficient and cleaner world, are driving Valmet's ambitious research and development work.

Valmet's mission is to convert renewable resources into sustainable results. The aim of our research and development (R&D) work is to create new technologies, products and services that address customer needs and help respond to some of the most important global megatrends: enhancing the efficiency of raw materials, water and energy; promoting the use of renewable raw materials; and reducing emissions.

Valmet's unique product and services offering is based on leading technology and the continuous development of new solutions to improve our customers' performance. Valmet launches around 100 new products onto the market every year. These products are often created in close cooperation with our customers or our network of leading universities and research institutes around the world.

The integration of sustainability topics in our R&D operations is ensured through the sustainability criteria that are an integral part of our innovation process. The criteria ensure that an innovation increases resource efficiency, reduces emissions and improves safety. They also help ensure the innovation's compliance with product and process safety legislation. Finally, they guarantee that sustainability benefits are integrated in the final product or solution to be launched.

Valmet's 16 pilot facilities carry out both internal R&D and customer projects. Our pilot facilities enable us to decrease the time to market and reduce risks in commercializing new technologies. We offer our customers the opportunity to utilize Valmet's pilot facilities to test new furnish or fuel, or to optimize their processes from the energy, raw material and water consumption perspective.



# PROGRESS OF MUST-WIN ACTIONS

## MUST-WIN



### CUSTOMER EXCELLENCE

## WHERE WE ARE TODAY

We are implementing our further developed services, automation and process technology concepts based on our core commitments, unique offering and continuous customer collaboration over the lifecycle. We are managing our sales based on a global process, common tools and a strong customer interface built on key account management and customer-specific mill teams.



### LEADER IN TECHNOLOGY AND INNOVATION

We are actively developing new products and services based on technology roadmaps and close collaboration with our customers. We have product competitiveness programs in all our businesses to improve our offering's cost competitiveness and performance.



### EXCELLENCE IN PROCESSES

We are using a harmonized global process to systematically develop our project management capabilities. We focus strongly on improving the quality of our products, services and processes, based on continuous improvement and Lean practices. We use clearly defined HSE management practices for all our operations to improve HSE performance. We are systematically promoting sustainability in our supply chain and supporting our product competitiveness targets through procurement savings. We are developing and unifying our processes and ways of working as part of our ERP renewal.



### WINNING TEAM

We are strengthening our high-performance culture through performance management and developing engagement and managerial skills. We focus strongly on capability development based on a combination of global training programs, internal job rotation and local competence development.



### GROWTH ACCELERATORS

We have launched a Field Service growth program to develop and grow our on-site services.

We have launched our Industrial Internet services to improve the reliability and performance of our customers' operations, based on a meaningful dialogue with data.

We are building a digital foundation to further drive efficiency, quality and productivity in our operations.

**FOCUS GOING FORWARD**

**STRATEGIC GOALS**



We will continue to implement and develop our way of serving our customers based on our unique differentiator, the combination of process technology, automation and services, and to develop our sales interface and sales management practices.



**Valmet deploys strong, capable, and committed teams close to our customers. We serve our customers with our full offering by combining process technology, automation and services.**



We will continue to strengthen our research and development cooperation with key customers, systematically develop and renew our offering, and continue to implement product competitiveness initiatives.



**Valmet provides leading technology and cost-competitive products and services that reduce customer operating and investment costs.**



We will continue to develop our processes and operations by focusing on:

- Project management practices and key projects
- Building a strong quality culture and way of operating to drive our quality performance
- Strengthening existing HSE practices and collaboration with customers and suppliers to improve safety
- Supplier quality and delivery performance, and sustainability in our supplier network
- The roll-out of new ERP and realizing its benefits
- Certification of our global management system for quality and HSE management standards.



**Valmet operates with efficient and harmonized processes with increasing cost competitiveness. In the process technology business, we are increasing our flexibility to respond to cyclical demand. Quality and health and safety are constantly improving.**



We will continue to boost performance and engagement through effective performance management and an increased focus on adapting to change, building resilience and staying connected. We will continue to develop our strategic capabilities and our functional and technology competence to support our strategic targets and business growth.



**Valmet has engaged and performance-driven teams living Valmet's shared values. Competences are globally balanced and close to customers.**



We will focus on developing our field service capabilities, offering and way of operating to grow and deliver distinctive on-site services. We will continue to develop our Industrial Internet services and digital capabilities to:

- Provide new advanced analytics and remote services that improve the performance and reliability of our customers' operations
- Digitally enhance our customer experience
- Build and leverage digitalization in more efficient and productive operations.



**Valmet strives to accelerate growth through focused business initiatives in field services and digitalization.**

# FINANCIAL TARGETS

GROWTH  
**2X**

Net sales growth to exceed market growth:

- Net sales for stable business to grow over two times the market growth
- Net sales for capital business to exceed market growth

NET SALES 2020,  
EUR BILLION  
**3.7**

ROCE  
**>20%**

Comparable return on capital employed (pre-tax),  
ROCE target >20%

ROCE 2020  
**22%**

PROFITABILITY  
**10–12%**

Comparable EBITA target 10–12%

PROFITABILITY 2020  
**9.8%**

DIVIDEND PAYOUT  
**≥50%**

At least 50% of net profit  
<sup>1</sup>Proposal by the Board of Directors

DIVIDEND PAYOUT 2020  
**58%<sup>1</sup>**

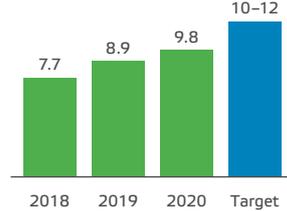


Net sales, EUR billion



■ Stable business  
■ Capital business

Comparable EBITA,  
% of net sales



Comparable ROCE, %



Dividend per share,  
EUR/% net profit



■ Dividend per share, EUR  
— % of net profit  
— Target ≥50%

<sup>1</sup> Proposal by the Board of Directors.



## MITIGATING EFFECTIVELY THE IMPACTS OF THE COVID-19 PANDEMIC

The coronavirus pandemic, a dynamic, rapidly evolving global crisis that shaped 2020, impacted Valmet's operations in various ways. Protecting the health and safety of employees, partners and customers, as well as the communities in which we operate, was in the center of day-to-day activities. Collaboration with stakeholders to reduce risks to people and our businesses, as well as to ensure business continuity, was also extremely important.

Valmet established both a global Incident Management Team (IMT) and a local China IMT to manage Valmet's response to the coronavirus pandemic right at the beginning of the coronavirus outbreak in January 2020. Additionally, the management's incident team (HQ Team), and regional and local IMTs were established in March 2020 when the pandemic continued to spread further.

The role of each IMT was clearly defined. The global IMT focused on monitoring the development of the global pandemic situation, sharing updated information with the personnel

and preparing global guidelines. The management's HQ Team monitored the global situation, ensured efficient flow of information globally, approved proposals by the global IMT for company-wide operating guidelines and supported the decision making of local organizations. Regional and local IMTs focused on securing business continuity, creating continuity plans for critical business functions, observing the instructions of local authorities, deploying regional instructions and communicating with personnel.

The IMTs worked very hard over the course of the year in cooperation with employees, customers, suppliers and health authorities in the ever-changing situation of the pandemic to ensure safety in the workplace and continuity of business operations. Despite the challenging COVID-19 conditions, Valmet had relatively few confirmed COVID-19 infections throughout the year, especially at Valmet's own locations.

"We have been able to operate and adapt in an agile way globally, both implementing and updating numerous instructions with growing scientific and medical information and sharing best practices. Clear and timely internal communication has been one key to success. Good instructions help, but managing the COVID-19 year was very much about people in all kinds of roles from Project Managers to site employees and their commitment to following the safety measures and taking care of each other," says **Asko Partti**, Vice President of Risk Management and Head of Global IMT.



**READ MORE:**  
[valmet.com/covid-19-information/](https://valmet.com/covid-19-information/)

# COMPREHENSIVE APPROACH TO SUSTAINABILITY

**1.5**  
LOST TIME  
INCIDENT FREQUENCY  
FOR EMPLOYEES

**74%**  
OF VALMET  
EMPLOYEES  
COMPLETED  
SAFETY DIALOGUE  
TRAINING

Sustainability is at the core of Valmet's business strategy and operations. Our values, Code of Conduct and related policies, and selected globally acknowledged initiatives and principles create the foundation for sustainable performance at Valmet.

The main task of our sustainability work is to support our strategy execution and Valmet's growth plans. Sustainability is integrated in our processes through the comprehensive Sustainability360° agenda. The agenda helps us to mitigate risks and become more cost-effective, and it supports us in growing our business.

Valmet's Sustainability360° agenda covers the five most material sustainability focus areas: a sustainable supply chain; health, safety and environment; people and performance; sustainable solutions; and corporate citizenship. The agenda is aligned with the United Nations Sustainable Development Goals and is executed through three-year action plans. During the year, we continued to implement the actions defined in the current action plan, which is ongoing for 2019–2021.

We made good progress, despite the exceptional operating environment due to the COVID-19 pandemic.

Our stakeholders' expectations of our sustainability performance and its results are continuously growing and evolving. In 2021, we will conduct an agenda review, assess the materiality of the current sustainability focus areas and modify them if needed, as well as update our action plan for 2022–2024. In addition, Valmet is committed to the Paris Agreement 1.5°C pathway. Valmet created an ambitious Climate Program, including targets and main actions for all main parts of Valmet's value chain. The program will be launched in 2021.

Our approach of continuously improving our performance has positioned us as the industry leader in sustainability. In 2020, Valmet was included in the Dow Jones Sustainability Indices (DJSI) and Ethibel Sustainability Index (ESI) Excellence Europe, and received an A- leadership rating in CDP's climate program ranking.



**Most relevant UN Sustainable Development Goals for Valmet**



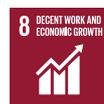
**Goal 6: Clean water and sanitation**

Technologies developed by Valmet help to reduce water pollution and freshwater use in industrial operations. Technologies such as our evaporation and condensate treatment solutions, ultrafiltration solutions and tissue, board and paper machines can also help our customers to increase the recycling of process water and reduce freshwater consumption. Valmet offers automation and real-time measurement solutions for water and wastewater treatment plants to maximize production performance and save in energy and chemical usage, e.g. in wastewater plant sludge dewatering process.



**Goal 7: Affordable and clean energy**

Valmet has environmental targets for 2030 for its own operations, aimed at e.g. improving the use of renewable energy. Technologies developed by Valmet also impact this goal, e.g. combined heat and power production with biomass, waste and multifuel boilers, increasing the use of different fuel mixes. Valmet also offers various air emission control systems to remove dust, SO<sub>x</sub> and NO<sub>x</sub> emissions from power plant flue gases. Additionally, Valmet has widened its offering to include flue gas scrubbers for cruise and cargo ships.



**Goal 8: Decent work and economic growth**

Valmet contributes to global economic productivity and innovation through its R&D development. Valmet aims to have positive, safe and fair working conditions. We have a human rights due diligence framework in place for our own operations, as well as for the supply chain.



**Goal 12: Responsible consumption and production**

Valmet's technologies are designed for maximum resource efficiency. Light-weighting technologies that reduce the amount of fiber used in board production, hybrid technologies that enable fiber savings in tissue production, high yield chemical pulp cooking, and fiberlines and power boilers that can use agricultural residues impact this goal by increasing the efficient use of resources. Valmet's automation solutions make production processes more efficient and safer to operate. Valmet's own programs and actions such as waste management, Valmet's work towards environmental targets, and supply chain management contribute to this goal.

# PROGRESS ON SUSTAINABILITY360° AGENDA

## Sustainable supply chain

TARGETS	KEY ACHIEVEMENTS 2020	KEY TOPICS 2021
<p><b>We develop our existing processes that create the foundation for a sustainable supply chain</b></p>	<ul style="list-style-type: none"> <li>92 percent of new direct suppliers went through the supplier approval process and were automatically screened for sustainability                             <ul style="list-style-type: none"> <li>Updated supplier sustainability self-assessment survey</li> </ul> </li> <li>34 supplier sustainability audits conducted by Valmet and a third-party auditor                             <ul style="list-style-type: none"> <li>Piloted two remote audits due to COVID-19-related travel restrictions</li> </ul> </li> <li>Continued to implement sustainability engagement program for key suppliers in China, Asia-Pacific and EMEA                             <ul style="list-style-type: none"> <li>Engaged 100 percent of key suppliers in China, Asia-Pacific and EMEA</li> <li>Launched two sustainability e-learning courses for key suppliers to increase awareness and give practical guidance on more sustainable business practices</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>Continue supplier sustainability audits while ensuring a high-quality audit follow-up process                             <ul style="list-style-type: none"> <li>Develop remote auditing process further</li> <li>Start following up the annual target for share of verified corrective actions of all agreed corrective actions</li> </ul> </li> <li>Continue to increase traceability in the supply chain</li> <li>Continue to implement the sustainability engagement program for key suppliers globally                             <ul style="list-style-type: none"> <li>Launch program in North and South America</li> </ul> </li> <li>Continue to reduce emissions from transportation and logistics</li> <li>Continue to develop lightweight packaging and standardization for more sustainable packaging solutions to reduce CO<sub>2</sub> emissions, increase use of renewable materials and decrease use of raw materials</li> <li>Continue to develop the carbon footprint calculation of our supply chain</li> <li>Continue to increase collaboration with highest emitting suppliers to reduce CO<sub>2</sub> emissions in our supply chain</li> <li>Develop employee commuting reporting</li> </ul>
<p><b>We create new approaches to reduce the environmental impacts of our supply chain</b></p>	<ul style="list-style-type: none"> <li>Enhanced the quality of data of purchased goods and services and identified the most energy intensive purchasing categories that enable a more impactful approach to carbon reduction planning in our supply chain</li> <li>Actively worked with suppliers to develop environmental reporting and to find ways to further reduce CO<sub>2</sub> emissions together</li> <li>Created new procurement guidance to give preference to more sustainable transportation and logistics service providers in purchasing decisions</li> <li>Total weight of air shipments decreased by 19 percent</li> <li>New packaging processes were developed and piloted to decrease repackaging and reduce packaging waste</li> <li>Emissions caused by business travel decreased remarkably due to COVID-19 related travel restrictions</li> </ul>	



## Corporate citizenship

TARGETS	KEY ACHIEVEMENTS 2020	KEY TOPICS 2021
<p><b>We ensure our global human rights compliance through a due diligence framework</b></p>	<ul style="list-style-type: none"> <li>Started to implement the new long-term social responsibility program</li> <li>Continued to work on human rights due diligence framework                             <ul style="list-style-type: none"> <li>Verified and closed all the corrective actions related to two human rights impact assessments conducted by an independent third party in Indonesia and China</li> </ul> </li> <li>Launched new human rights e-learning course for Valmeteers</li> <li>Continued face-to-face human rights training sessions</li> </ul>	<ul style="list-style-type: none"> <li>Continue to implement human rights due diligence framework and related action plan based on UN Guiding Principles for Business and Human Rights</li> <li>Continue internal training on human rights with both face-to-face training and e-learning</li> <li>Annual sustainability reporting according to the GRI Standards</li> <li>Report to leading sustainability ratings</li> <li>Increase stakeholder feedback through a specific stakeholder survey</li> <li>Continue to implement social responsibility program</li> <li>Continue highlighting sustainability in investor relations activities and further develop climate disclosure in line with TCFD recommendations</li> <li>Update the anti-corruption and bribery policy</li> <li>Continue developing use phase CO<sub>2</sub> emission calculation to disclose annual emissions in our future reporting</li> </ul>
<p><b>We are a trusted local partner and promote transparent reporting</b></p>	<ul style="list-style-type: none"> <li>Sustainability e-learning course completed by 63 percent of Valmet white-collar employees</li> <li>Sustainability recognitions                             <ul style="list-style-type: none"> <li>Included in Dow Jones Sustainability World and Europe Indices (DJSI) for the seventh consecutive year</li> <li>Included in Ethibel Sustainability Index (ESI) Excellence Europe</li> <li>Received the second-best A- rating in CDP's climate program ranking</li> </ul> </li> <li>Updated Code of Conduct and launched e-learning</li> <li>Developed our climate-related financial disclosure in line with the Task Force on Climate-related Financial Disclosures (TCFD) recommendations</li> <li>Developed value chain CO<sub>2</sub> emissions calculations including technology use phase emissions calculations</li> </ul>	



**READ MORE:**  
[valmet.com/sustainability](http://valmet.com/sustainability)

## People and performance

TARGETS	KEY ACHIEVEMENTS 2020	KEY TOPICS 2021
<b>We boost employee engagement and develop the best talent</b>	<ul style="list-style-type: none"> <li>Completed 90 percent of the high-level OurVoice engagement survey actions</li> <li>Conducted first ever Valmet Pulse Survey with 61 percent response rate; engagement continues to be at a good level</li> <li>Excellence in Project Management global training program for service and automation professional piloted with excellent feedback (4.6/5)</li> <li>Identified 1,695 successors as key outcome of talent review process</li> </ul>	<ul style="list-style-type: none"> <li>Use sustainability to drive engagement and attract talent</li> <li>Increase internal mobility between businesses and geographies</li> <li>Continue to support and partner with organizations that promote diversity in the workplace</li> <li>Launch an umbrella for Valmet's view on how to integrate work with the rest of life, taking into account different life situations, generations and local preferences</li> <li>Enhance global training portfolio to strengthen strategic skillsets</li> <li>Fully utilize competence transfer toolkit to support competence transfer</li> <li>Support the business to see the opportunity for a business model change due to COVID-19, and to ensure the required competences and resources</li> </ul>
<b>We are a responsible employer and promote diversity</b>	<ul style="list-style-type: none"> <li>Continued to prioritize diversity talent in global program nominations</li> <li>Achieved good level of internal mobility (40%)</li> <li>Began to execute work-life integration three-year roadmap</li> <li>Implemented social committee guideline to encourage sufficient wellbeing-related activities across the organization</li> <li>Continued Forward for Managers 2 training, with 139 managers participating</li> <li>Ran 360° feedback process for 56 managers</li> </ul>	



## Health, safety and environment (HSE)

TARGETS	KEY ACHIEVEMENTS 2020	KEY TOPICS 2021
<b>We invest in safety culture and effective HSE processes and practices</b>	<ul style="list-style-type: none"> <li>Lowest ever LTIF 1.5 and TRIF 3.1 for employees</li> <li>The global Safety Dialogue training continued, going virtual where needed, and was performed by 74 percent of all employees</li> <li>New global IT platform launched for HSE event and Continuous Improvement (CI) management, as well as risk and audit management</li> <li>Preventive safety initiatives launched – for example, on lifting safety in China</li> <li>Migration of the global management system to the ISO 45001 certificate and certification coverage increase to 47 locations</li> <li>Integration of newly acquired operations with Valmet HSE systems and culture continued</li> </ul>	<ul style="list-style-type: none"> <li>Continue effective HSE management of Covid-19 in locations and customer sites</li> <li>Finalize implementation of the Safety Dialogue training</li> <li>Continue adoption of new HSE and CI platform, including promotion of the reporting portal for external stakeholders</li> <li>Launch of renewed global HSE processes</li> <li>Continue with Contractor HSE days</li> <li>Increase the ISO 14001 and 45001 certifications of workshops</li> <li>Take actions to increase carbon neutral energy consumption in locations and reduce carbon emissions from business travel</li> </ul>
<b>We collaborate with customers and partners to improve HSE results</b>	<ul style="list-style-type: none"> <li>Execution of COVID-19 management in customer deliveries</li> <li>Contractor HSE days held for key projects and annual shutdowns</li> <li>Continued to define and implement safety management processes for the main external workforce categories</li> </ul>	



## Sustainable solutions

TARGETS	KEY ACHIEVEMENTS 2020	KEY TOPICS 2021
<b>We create technologies and services that enhance renewable raw materials, and water and energy efficiency</b>	<ul style="list-style-type: none"> <li>Identified several new product opportunities utilizing renewable or recyclable materials</li> <li>Launched products that enhance more sustainable operations: belt-roll structure, new generation of fabric insertion unit, fuel flexibility concept and marine ultrafilter water treatment unit</li> <li>Developed new technologies for light weighting and increased quality in paper and board making</li> <li>Improved material efficiency in several products through product design</li> <li>Mapped and highlighted CO<sub>2</sub> emission reduction potential in Valmet's product portfolio</li> <li>Continued to develop advanced process of control-based optimization solutions applied for NO<sub>x</sub> and CO<sub>2</sub> footprint reductions in the energy industry</li> </ul>	<ul style="list-style-type: none"> <li>Increase the use of renewable or recycled materials in product offering</li> <li>Continue to develop solutions to improve energy and raw material efficiency</li> <li>Develop the sales organization's competences, as well as sales tools and systems for sustainability</li> <li>Collaborate with key customers concerning the sustainability benefits of our offering</li> <li>Develop solutions for material recycling</li> <li>Develop moulded fibre production with MetsäSpring</li> <li>Continue the program to reduce the environmental footprint in Fabrics business unit</li> <li>Develop intelligent automation and optimization solutions for de-centralized, flexible and carbon-neutral energy and alternative fuel production</li> <li>Develop odor-free lignin extraction</li> <li>Add and improve technologies that enhance functionality of paper and board</li> <li>Upgrade sulfuric acid technology</li> </ul>
<b>We actively promote the sustainability benefits of Valmet's offering to meet customers' needs</b>	<ul style="list-style-type: none"> <li>Several technology events conducted with key customers to identify potential for CO<sub>2</sub> reduction and water savings</li> <li>Continued to provide sustainability training for sales teams</li> </ul>	



# SUSTAINABLE SUPPLY CHAIN

In 2020, our efforts were directed to ensuring our supply chain functionality and cost effectiveness during the COVID-19 pandemic, implementing our key supplier sustainability program, piloting remote supplier sustainability auditing and advancing supplier collaboration to reduce CO<sub>2</sub> emissions in our purchasing. We successfully continued to support our suppliers, and to execute and further develop our existing key processes to enhance sustainability in our supply chain.

In 2020, the COVID-19 pandemic required us to put extra effort on ensuring the functionality of our supply chain. We were able to overcome the challenges and succeeded in managing our supply chain without detriment to our customer projects or customers. This was possible thanks to our established global supplier base, strong supplier relations and our decentralized procurement organization. With global coverage and operations in more than 20 countries our purchasing was flexibly moved from suppliers in one geographical area to another depending on the pandemic situation. The major problems concerning international logistics required very careful planning from us in order to meet the agreed time schedules and to keep costs on an acceptable level. Our proactive way of communicating internally and externally potential delays made room for changing plans and avoiding problems for our own production or customer deliveries. In spite of the very challenging times, the skilled management of the supply chain in 2020 enabled us also to reach procurement savings compared to 2019.

## **Consistent work in ensuring sustainable supply chain continued**

Ensuring a sustainable supply chain is one of our five sustainability focus areas. We have integrated sustainability in our procurement and supply chain processes, and our target is to continuously enhance our supply chain management and our value chain's transparency.

Valmet has some 17,000 active direct suppliers from more than 50 countries with different sustainability risk levels. Several potential sustainability risks may occur in our complex supply chains, and we therefore work systematically to ensure responsible business practices throughout our global supply chain. Our ambition is to improve and develop the sustainability of our suppliers' operations and to further strengthen our cooperation with them.

Despite the challenges due to the pandemic, our sustainable supply chain performance was strong in 2020.

## **Sharpening audit reporting and follow-up practices**

To ensure that our suppliers operate in compliance with the requirements of our Sustainable Supply Chain Policy and with local and international law, we have conducted sustainability audits globally every year since 2015.

In 2020, we conducted 34 supplier sustainability audits in eight countries with a certified third-party auditor. We did not reach our target of 40 yearly audits because of the COVID-19 pandemic. However, in the geographical areas where the restrictions allowed us to conduct on-site audits, we made solid progress. We also piloted remote supplier sustainability auditing with two of our service suppliers in the indirect purchasing category.

During the year, our focus was on ensuring the right timing and good quality of the audit follow-up process and the verification of agreed corrective actions. We also continued to further develop and automate our reporting practices and prepared a new IT solution for global audit and corrective action follow-up, which will enable us to utilize analytics more efficiently in our target setting and related actions. Of all corrective actions agreed with suppliers in 2020, 37 percent had been completed and verified by the end of 2020. 90 percent of all actions agreed with suppliers as part of auditing process since 2015 had been completed and verified by the end of 2020.

## **Successful progress in engaging suppliers to sustainability**

In 2020, we continued the implementation of our global key supplier sustainability program, targeted exclusively at selected key suppliers. We have around 100 key suppliers, of which ca. 30 percent are identified as possible sources of potential sustainability risks for Valmet, based on country of origin and purchasing category. Our program supports these important suppliers in enhancing the sustainability of their operations.



**PURCHASES**  
**(10 LARGEST COUNTRIES)**

EUR MILLION	2020
Finland	955
Sweden	270
China	207
USA	151
Germany	95
Poland	61
Estonia	49
India	46
Canada	42
Italy	35

**92%**

**OF NEW DIRECT  
SUPPLIERS WERE  
AUTOMATICALLY  
SCREENED FOR  
SUSTAINABILITY**

**34**

**SUPPLIER  
SUSTAINABILITY  
AUDITS  
CONDUCTED IN**

**8**

**COUNTRIES**



The program is based on the principles of Valmet’s Sustainable Supply Chain Policy, and it is an integral part of our supplier relationship management (SRM) program.

As part of the program, individual targets and KPIs are set and followed up for each participating supplier, resulting in visible improvements in their operations. In addition, they are offered training and exclusive access to development tools. In 2020, we launched two new sustainability e-learning courses to increase awareness and to give practical guidance on more sustainable business practices.

During the year, the program continued successfully in China and in Asia-Pacific with all the agreed actions completed as planned. In November 2020, we launched the program in EMEA, and in 2021, the program will be introduced both in North and South America.

**Towards world-class procurement**

Valmet regularly arranges supplier events in different geographical regions to strengthen mutual relationships with suppliers around the globe. In 2020, Valmet organized only one face-to-face Supplier Collaboration Day, due to the pandemic. The event was held in December in Suzhou, China, for around 50 suppliers, represented by 100 persons. The event focused on, among other topics, Lean thinking, and how it could be successfully implemented in suppliers’ own operations.

We continuously develop our employees’ supply chain management competences through training. In 2020, we launched a Supplier Relationship Management e-learning course, as well as Early Supplier involvement training with related e-learning to further improve supplier collaboration, which we see as an important key to innovativeness and a competitive edge.

In 2021, we will define the roles and identify the skills needed to achieve world-class procurement; based on this, we will develop

a new Procurement skills and training portfolio. The portfolio will be launched in 2022.

**Reducing the environmental impact of purchased products and services**

Valmet’s purchasing from its supply chain accounts for approximately four percent of the environmental impact of its entire value chain. To support our suppliers in reducing their environmental impacts, we have identified our most energy-intensive direct purchasing categories, and within them, the most energy-intensive suppliers with significant purchasing volumes. Our next step is to include these suppliers in our key supplier sustainability program and set targets for their environmental performance to reduce environmental impacts. In 2020, we enhanced the quality of emissions data collected from our supply chain, thereby enabling more impactful CO<sub>2</sub> reduction planning.

Concerning CO<sub>2</sub> emissions caused by indirect purchasing, we continued to focus on transportation and logistics services. To reduce the emissions connected with service providers, we have procurement guidelines that prioritize the more sustainable service providers in purchasing decisions. Our main transport and logistics service providers report on their sustainability work to Valmet on a quarterly basis, and we work closely with them to find ways of reducing CO<sub>2</sub> emissions.

We are targeting the reduction of our goods’ air freight to cut their emissions by favoring rail transport and ocean freight. In 2020, the number of our air shipments reduced by 12 percent and the total weight of our air shipments decreased by 19 percent. New packaging processes were also developed and piloted during the year, with the aim of a decreased need for repackaging and reduced packaging waste. Emissions caused by business travel decreased remarkably in 2020 due to reduced traveling resulting from the COVID-19 situation.

**A GLOBAL SUPPLIER SUSTAINABILITY MANAGEMENT PROCESS**

**Required from all suppliers**

**SUSTAINABLE SUPPLY CHAIN POLICY**

All suppliers are required to sign Valmet’s Sustainable Supply Chain Policy



**SUSTAINABILITY RISK ASSESSMENT**

All suppliers are evaluated through a five-level sustainability risk assessment



**Required based on a supplier risk assessment**

**SUPPLIER SELF-ASSESSMENTS**

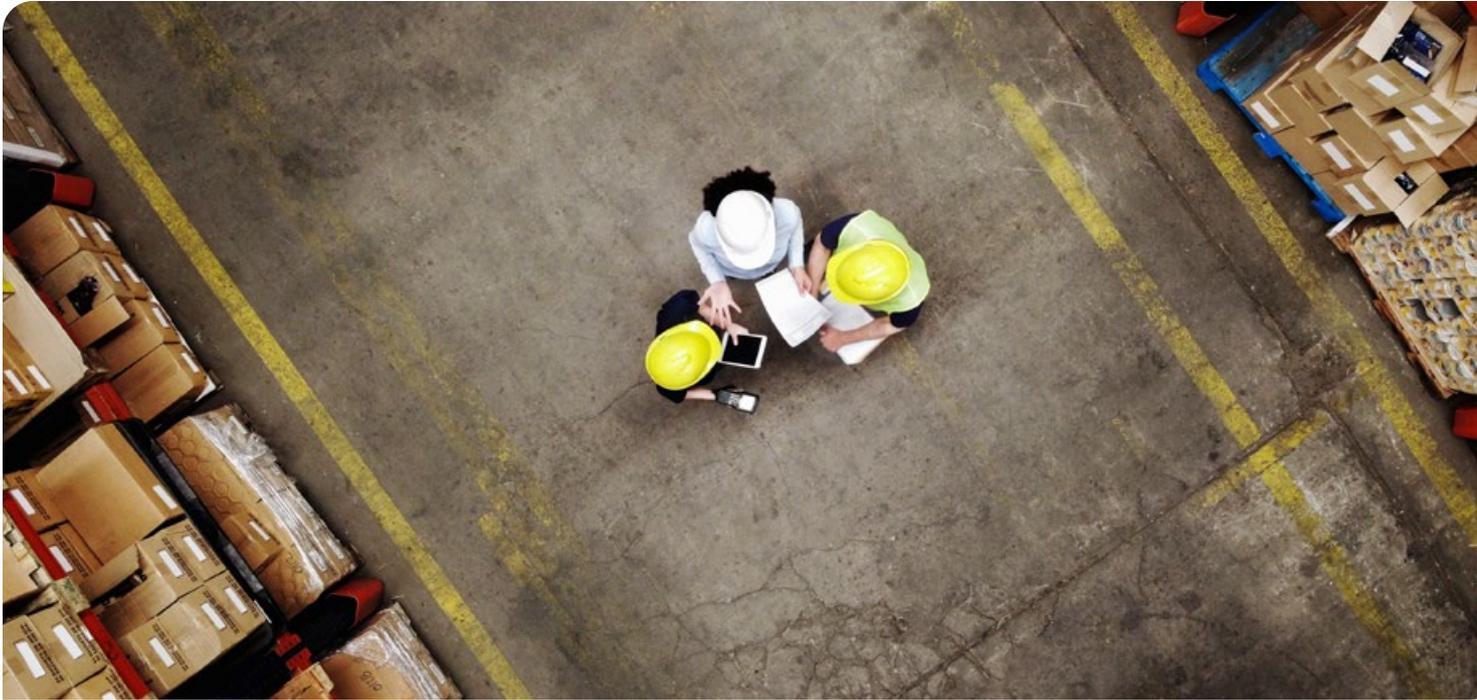
A poor result in the risk assessment leads to a supplier sustainability self-assessment



**SUSTAINABILITY AUDITS**

A poor result in the self-assessment leads to an audit





## PIONEERING SUSTAINABILITY SUPPORT FOR OUR KEY SUPPLIERS IN CHINA

Our ambition is to strongly support our selected key suppliers to enhance the sustainability of their operations. To realize our ambition systematically and impactfully, we have created a global key supplier sustainability program. The program takes a comprehensive approach to sustainability and is based on the principles of our Sustainable Supply Chain Policy: ethical business practices and compliance, human and labor rights, occupational health and safety, and environmental management.

The roll-out of the program commenced in November 2018 in China. To raise awareness about the program and to build enthusiasm, we arranged a Key Supplier Sustainability Day in Shanghai.

The ambitious program targets visible improvements in many parts of the suppliers' operations. To ensure the effectiveness of the program, the suppliers are offered many forms of

support. These include professional training on compliance related to the different areas of sustainability, the sharing of inspirational case studies and best practices, setting targets and defining relevant development actions, and having a dialogue and giving guidance on how to take the first steps and proceed with the often complicated issues. The suppliers are also provided access to a capacity-building library with concrete development tools.

The key supplier sustainability program proceeded successfully in China in 2020. All suppliers participating in the program finished the agreed development actions as planned. Of the actions, 44 percent were related to business ethics and compliance, 25 percent to human and labor rights, 17 percent to occupational health and safety, and 15 percent to environmental management.

According to **Amos Yang**, Manager, Supplier Quality and Development at Valmet, the Chinese key suppliers are very appreciative of the unique way Valmet helps them. The program has given them awareness and tools to evaluate their sustainability performance and to make concrete improvements. It has also produced added value for them in the form of new customers, increased order volumes from existing customers and enhanced satisfaction among other stakeholders.

The program continues in 2021, when, for example, new reduction targets for suppliers' CO<sub>2</sub> emissions will be set.

▶ **READ MORE:**  
[valmet.com/supplychain](https://valmet.com/supplychain)

# HEALTH, SAFETY AND ENVIRONMENT

Together we make a difference, and this mindset was never more impactful than this year with COVID-19. We continue to invest in a culture where we take care of each other, collaborate with customers and partners, and constantly improve our processes and practices so that we keep everyone healthy and safe, and protect the environment.

We believe a positive safety culture is created through an open and continuous dialogue on health, safety and environmental (HSE) issues in every team. In 2020, at least 24,500 HSE observations were made, and more than 1,850 manager safety walks and conversations took place. To ensure sustainable safety development, we continued to work with safety issues locally through our safety programs, including coaching, training, communication and injury prevention activities. Our efforts were successful, and we made good progress toward our goal of zero harm, achieving 3.1 (4.4) in total recordable incident frequency (TRIF) for employees. This figure includes the newly acquired operations.

Despite our efforts and progress in safety, we regret to report a fatal workplace injury at Valmet's location in Ovar, Portugal. We conducted a thorough incident investigation with a team of experts, and corrective actions have now been implemented. In addition, we held lessons learned sessions across the company to avoid similar events in the future.

We continue to make Valmet even safer by developing our behaviors at all levels of the organization. The implementation of our global Safety Dialogue training, launched in 2019, proceeded well during the year. The aim is that at the end of the training, every Valmet team member is committed to safety, understands their role as a manager and an employee to enforce a safety culture throughout the organization, and can put safety into action. 74 percent of all our people had participated in the training by the end of 2020.

## Enhancing safety through collaboration and advanced digital tools

We are committed to protecting the health and safety of our employees, partners and customers, as well as the communities in which we operate. When the COVID-19 pandemic started, we established a global framework with an incident management team

structure and common guidelines, and ensured sharing of lessons learned, among other things.

We continue to actively collaborate with our customers and contractors on HSE topics. In 2020, we arranged four Contractor HSE Days, three of them virtual, to share best practices, align safety mindsets, and secure good safety coordination and COVID-19 management at project and service sites. A step forward was taken during the year with the launch of the @Field service application, where our global HSE processes are integrated. We thus ensure that for every work order an HSE risk assessment is made prior to starting work, that task-specific Think About checklists are used by everyone involved, and that site HSE inspections and Toolbox talks are regular activities.

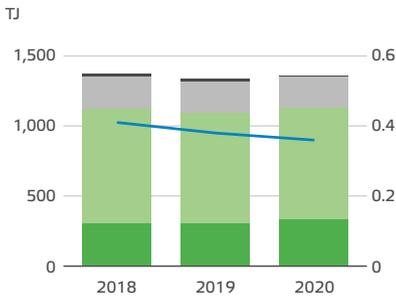
To support our efforts, we conduct several global awareness events every year. We participated in the WWF Earth Hour for the eleventh consecutive year in more than 90 locations. We also organized our annual health, safety and environment (HSE) week for the sixth time.

## Progressing with our global management system

Valmet's global management system provides a common platform for quality and HSE management in all operations. The transition from the former health and safety standard OHSAS 18001:2009 to the more effective ISO 45001:2018 was completed in 2020, so our global management system is now certified to international ISO standards covering not only health and safety but also environment and quality. We have defined an ISO certification expansion roadmap to ensure that by 2025, at least 90 percent of Valmet's people will be working in operations externally certified to these standards (see the table on page 53 for the current coverage).

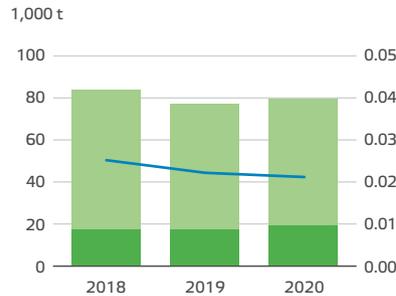
# HEALTH, SAFETY AND ENVIRONMENTAL DATA

## Energy<sup>1</sup>



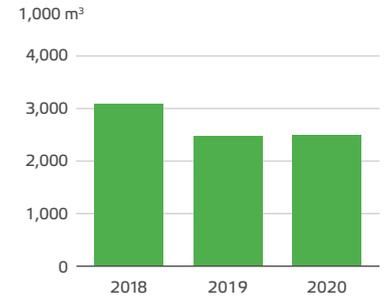
- Fuel
- Electricity
- District heating
- Steam
- TJ/MEUR Net sales

## CO<sub>2</sub> emissions<sup>1</sup>

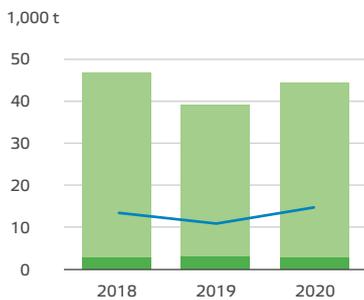


- Direct emissions (scope 1)
- Indirect emissions (scope 2)
- 1,000 tCO<sub>2</sub>/MEUR Net sales

## Water consumption<sup>1</sup>



## Waste<sup>1</sup>



- Hazardous waste
- Non-hazardous waste
- Waste to landfill

## MANAGEMENT SYSTEMS (% OF HEADCOUNT)

### SHARE OF CERTIFIED OPERATIONS<sup>2</sup>, 2020

**84%**

ISO 9001  
Quality Management  
System

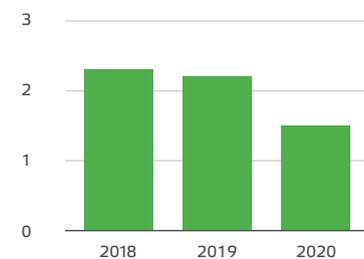
**74%**

ISO 14001  
Environmental  
Management System

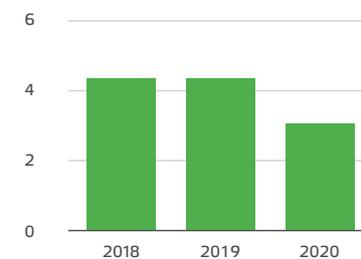
**64%**

OHSAS 18001  
Occupational  
Health and Safety  
Management System

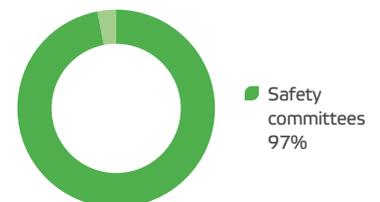
## Lost time incident frequency (LTIF)<sup>3</sup>, own employees



## Total recordable incident frequency (TRIF)<sup>4</sup>, own employees



## Coverage of safety committees<sup>5</sup>, % of workforce



<sup>1</sup> Data for 2020 includes the acquisitions from 2019 for the first time. Acquisitions made in 2020 will be reported from 2021 onwards.

<sup>2</sup> Including offices.

<sup>3</sup> LTIF reflects the number of injuries resulting in an absence of at least one workday per million hours worked.

<sup>4</sup> LTIF+medical treatment and restricted work cases.

<sup>5</sup> Percentage of workforce represented in formal joint management-worker health and safety committees.

An additional focus is on integrating recently acquired operations with our global management system. In 2020, we supported the implementation of common processes by launching an external reporting portal for our stakeholders for managing events related to health, safety, environment and continuous improvement (CI) in all Valmet operations. Event reporting and investigation supports the development of Valmet’s safety and continuous improvement culture. Risk and audit management functionalities in the tool will be brought into use during 2021.

In conjunction with the transition from the former occupational health and safety standard to the new one, we certified nine additional locations to the ISO 45001 and ISO 14001 standards. These locations are Laem Chabang and Bangkok (Thailand), Mumbai (India), Biddford (USA), Darwen and Haslingden (UK), Gliwice (Poland), Jakarta (Indonesia) and Wuxi (China). Currently, 83 Valmet locations are included in the multi-site certificate.

### Adapting health and wellbeing activities to the pandemic

Valmet is continuing with its global framework promoting five evidence-based action areas that enable our people to build wellbeing into their working lives. We encourage everyone to give, take notice, connect, keep learning and be active. During the pandemic, Valmet teams all over the world adapted health and wellbeing actions to make them COVID-19-safe and found innovative ways to be active and stay connected.

## ENVIRONMENTAL EFFICIENCY PROGRAM<sup>1</sup>

Target	2020	2025	2030
100% compliance with environmental regulations	100%	100%	100%
ISO 14001 system certification (% employees)	80%	90%	90%
Reduction in waste to landfill (Baseline reference yearly average 2010–2012)	20%	50%	80%
Reduction in water consumption (Baseline reference yearly average 2010–2012)	15%	18%	20%
Reduction in location CO <sub>2</sub> emissions (Baseline reference yearly average 2005–2009)	20%	40%	60%
Reduction in location energy consumption (Baseline reference yearly average 2005–2009)	20%	25%	30%
Increase use of renewable energy (% total annual electricity consumption)	20%	30%	35%

<sup>1</sup> Targets for operations before acquisitions in 2019 and 2020. New common targets and updated baselines to be set in 2021.

In 2019, we defined our approach to work-life integration and created a three-year roadmap. The first roadmap action, a social committee guideline, was implemented during the first part of 2020. The social committee guideline sets minimum requirements for facilitating social events and coordinated health promotion activities. By the end of the year 94 percent of employees were represented by social committees. Access to local occupational health services is also a key element in Valmet’s approach to mitigating health risks and promoting health. Absenteeism due to sickness and injuries remained low, at 2.5 percent (2.6%) of scheduled workdays.

### Reducing the footprint of our own operations

Valmet designs and operates its facilities to promote the sustainable use of resources. Due to three major acquisitions, our operational footprint increased remarkably in 2019 and 2020. Based on the updated baseline, we are setting new reduction targets for our environmental efficiency in early 2021.

All our production locations act to reduce energy consumption, CO<sub>2</sub> and other emissions, water usage and landfill waste. For example, in Finland, one of Valmet’s production locations started a roof renovation using a coating that compensates for 70 percent of the site’s yearly NO<sub>x</sub> emissions when completed. In Karlstad, Sweden, a switch was made from fossil diesel to renewable biodiesel and covers all our internal transports. It is estimated that this will lead to a reduction of 130 tonnes of CO<sub>2</sub> emissions annually.

## HEALTH AND SAFETY PROGRAM

Target	2020	2025
Reduction in TRIF – employees (per million workhours, rolling 12 months)	3.5	2.5
Reduction in LTIF – employees (per million workhours, rolling 12 months)	1.5	1
Reduction in TRIF – external workers whose work and/or workplace is controlled by Valmet (per million workhours, rolling 12 months)	6.5	2.5
Reduction in LTIF – external workers whose work and/or workplace is controlled by Valmet (per million workhours, rolling 12 months)	4	1
Access to local health promotion and wellbeing activities (% employees)	70%	100%
Increase in safety observation reporting (per employee/year)	3	4
Increase in management safety walks (per manager/year)	3	4
OHSAS 18001/ ISO 45001 system certification (% employees)	70%	90%
Elimination of life-changing injuries (no. injuries/year to employees and external workers whose work and/or workplace is controlled by Valmet)	<5	0



## TAKING CARE OF EACH OTHER AND BUSINESS CONTINUITY

The COVID-19 pandemic has created an extraordinary situation for almost every business throughout the world. Remote work and social distancing, as well as border closures and travel restrictions, challenge the ways we are used to collaborating and doing business.

“Looking back at 2020, I am proud of how well we at Valmet came together and learned new ways of working in response to COVID-19,” says **Julia Macharey**, SVP, HR and Operational Development.

At the beginning of the COVID-19 pandemic, we put in place a global framework with an incident management team structure, key precautionary principles, common guidelines, best practice and lessons learned sharing. Actions were taken throughout the company to establish safe routines for business travel, locations and customer sites.

The new situation accelerated the internal implementation of new online meeting technologies, for example. Many of our teams have found these virtual meetings to be a timesaving and effective way to communicate and stay connected.

To ensure business continuity, we brought into use new and innovative ways to serve our customers, such as virtual reality-based field services, remote factory acceptance testing and remotely supported tissue machine start-ups. Through our Industrial Internet capabilities, Valmet Performance Centers and other online technologies, we were able to serve customers very quickly despite the restrictions. The customer webinars we launched during the pandemic in 2020 were also very well received.

All over the world, we adapted the health and wellbeing actions to make them COVID-19-safe. For example, in China, teams challenged each other to keep up 10,000 steps a day during a 100-day period. In South America, three online stretching sessions were held every week, and virtual seminars on topics like nutrition, ergonomics and mental health were conducted on a monthly basis.

“We know that the pandemic will continue to impact our ways of working in 2021, and we will continue to study any new business models that emerge, as well as the opportunities to innovate, learn and grow as a result of the new situation while keeping our employees as safe and healthy as possible,” says Macharey.



**READ MORE:**  
[valmet.com/hse](https://valmet.com/hse)

**14,046**  
EMPLOYEES GLOBALLY

**90%**  
OUR VOICE ACTION  
COMPLETION

**4,875**  
SPOT AND SPECIAL  
REWARDS GRANTED



# PEOPLE AND PERFORMANCE

Teamwork and working together are one of our strengths. They are reflected in our values, connected to our Must-Wins and are consistently the highest scoring item in employee surveys. Teamwork in today's environment has served us well – and in 2020, we have had a lot of virtual firsts together. From virtual coffee times and brainstorming sessions to interactive whiteboards and new collaboration platforms, we are learning new ways to work, interact with customers, and adapt to change, together.

We continue to use the OurVoice employee survey to systematically develop engagement. The OurVoice survey runs every second year, allowing enough time to analyze results, define focus areas and take required actions. Completion of high-level actions – those set at the business line, area and global levels – was 90 percent for the 2019 survey. In addition to high-level actions, managers across the company work to execute team-level actions, which was a priority for many organizations during this survey cycle. The next OurVoice survey is set for the fall of 2021.

In 2020, we decided to conduct a short Valmet Pulse Survey, consisting of ten questions on working together, keeping connected, managing wellbeing and staying engaged to understand how our organization is faring during these unprecedented times. The overall results were at a good level – with approximately 75 percent or more of respondents reacting favorably to nearly all the questions. Working together continued to be a strength, followed by the company's efforts to keep people safe and healthy. Engagement and staying connected were also at a good level, which shows that as a company, we are finding ways to manage the changes happening around us. The response rate for the survey was 61 percent globally.

## Pushing for performance

Building performance-driven teams is a key aspect of our Winning Team Must-Win. Feedback continues to be an important mechanism for driving high performance, and in 2020, we continued our feedback culture development with HighFive feedback, active Spot and Special reward utilization, and annual and mid-year review discussions. In 2021, we will continue this work by introducing a new peer-to-peer feedback channel that encourages giving feedback, as well as actively asking for it.

We are continuing to utilize our processes to strengthen our pay for performance culture. We utilized the performance evaluation rating more strongly in our annual salary planning and talent review processes, which helped boost the number of salary increases given

to individuals with "very good" and "exceptional" performance. We also renewed our Global Bonus Plan for 2021, making changes to the eligibility rules, bonus weight structure and target setting, all of which were designed to support pay for performance culture development, as well as to align practices across the company. In 2021, we will further strengthen our pay for performance practices through a new remuneration training series for managers.

## Managers in the spotlight

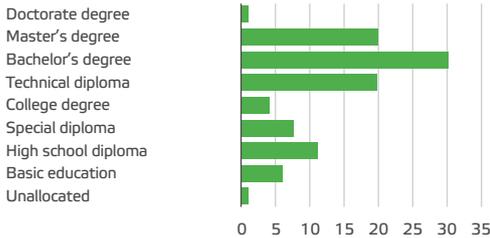
Demands on managers emerged in new areas in 2020, virtual ones. Almost overnight, Valmet managers in many parts of the world were forced to adapt how they interacted with their teams and make the shift to leading virtually. New elements of the Valmet manager role were in focus this year, namely, sharpening the skills required to maintain engaged, healthy and driven teams. Online learning resources were developed to support managers with working virtually, managing remote teams and driving change.

We continued our efforts with managerial skill development, running Forward for Managers 2 sessions wherever safely possible. Currently, 1,047 managers have attended the day-long program,

Working together continued to be a strength, followed by the company's efforts to keep people safe and healthy.

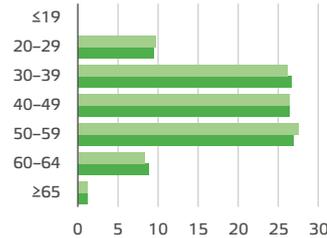
## PERSONNEL DATA

Education structure, %



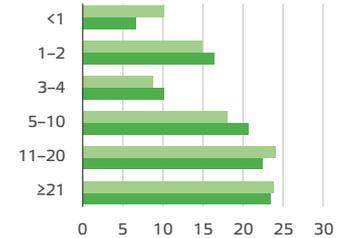
■ 2020

Age structure, %



■ 2019 ■ 2020

Service years, %



■ 2019 ■ 2020

representing 64 percent of the manager population. In 2020, managers showed excellent process discipline with our people processes, running the annual and mid-year review discussions, annual salary planning and talent review processes with high completion and good quality.

### Capability development

We develop our capabilities in line with our strategy and Must-Wins. Our global training portfolio is an important driver for the development of our strategic capabilities. In 2020, we kicked off three programs – Innovation Pathways, Champions in Services and Excellence in Project Management – and piloted an Excellence in Project Management session designed specifically for services and automation professionals. Many programs were modified for 2020, but the quality and outcomes remained largely the same. We also

focused on deepening and aligning the process surrounding strategic resourcing, work which will continue in 2021.

The global training programs are complemented by business-specific competence development programs on topics such as tacit knowledge transfers, Industrial Internet, field services certification, and chief engineer training. Especially this year, we learned to rely more on local competence and leverage remote connections, a shift that we want to build on in the future.

### The right talent in the right place

Our resourcing and development processes work to ensure we have the right talent in the right place to support customer projects. Our talent review process was simplified and expanded in 2020, leading to nearly 10,000 Valmetees being evaluated on potential and performance, and the identification of 1,695 successors. In 2021, we will focus on defining and executing development actions that strengthen the successor pipeline and improve successor readiness.

We continue to develop our resourcing practices and ability to attract talent. Within Valmet, we encourage internal mobility as a means of development, especially on moves between organizations and geographies. The number of positions filled internally during the year was at the same high level as in previous years, reaching 40 percent globally. Externally, we are focusing on a strong employer image and a smooth recruitment process, with an emphasis on onboarding, fully utilizing digital channels and sharing stories about what it feels like to be part of the Valmet team.

Many programs were modified for 2020, but the quality and outcomes remained largely the same.



## INNOVATION PATHWAYS – HARNESSING THE POWER OF INTERACTION FOR INNOVATIONS

Innovation Pathways is one of Valmet’s global training programs. It is designed to support strategic capability development, build an innovation culture and to ensure profitable growth.

During the training, participants from different businesses and a variety of roles work in project teams to solve real customer challenges using various innovation tools and methods to create minimum viable products. Strong customer involvement is a fundamental part of the program.

“A broad interaction within and between the teams, as well as with the customer, is fundamental to finding new and groundbreaking solutions that can offer new business opportunities and generate growth,” says **Janne Pynnönen**, Vice President, Research and Development at Valmet.

Execution of the program in 2020 required adaptation to pandemic-related travel restrictions and social distancing. Only the first part of the program was carried out face-to-face.

After that, all communication between the customer and the teams happened online, including the final week with the virtual lion’s den panel presentation session, where the results of the project work were ranked.

“I am very satisfied with how well the training succeeded. The online adaptation worked out well, the team spirit was very good, and the quality of the project work and presentations was impressive.”

**Lari Lammi**, Fiber Processing Business Unit's Director of R&D, strategy and product portfolio competitiveness, was one of the Innovation Pathways participants in 2020. He and his team of five came up with a winning concept that the customer is already considering implementing.

“Our task was to help the customer solve some quite demanding technical challenges so that they could enhance the production process at one of their plants. It was a clear advantage that our team members came from various professional backgrounds – we were able to look at the problem from different perspectives and to think out of the box,” Lammi says.

“The training has given me many things I am applying in my daily work – mostly new ways of thinking. For example, the next time I have a new idea I will first validate it with some of my colleagues who are experts in a totally different area!”

▶ **READ MORE:**  
[valmet.com/people-and-performance](https://valmet.com/people-and-performance)

# CORPORATE CITIZENSHIP

We actively develop our processes and operations to meet the sustainability expectations of our stakeholders globally. Commencing our social responsibility program, proceeding with the corrective actions related to the human rights impact assessments of our own operations, and the updating of our Code of Conduct were some of the year's highlights.

As a recognized sustainability leader in our industry and with our own operations in more than 30 countries, we aim to ensure that all our operations comply with laws and regulations in a socially responsible and globally aligned manner. Our growing presence in emerging markets emphasizes our responsibility toward local communities around the world.

Valmet is committed to the United Nations (UN) Guiding Principles on Business and Human Rights. We express our engagement in our Human Rights Statement, which was updated in 2020. We enforce the Statement by actively assessing how we respect human rights in practice in our own operations and in our supply chain.

Information on our commitment to international declarations and guidelines related to sustainability, including the statement on Human Rights, can be found on our corporate website.

Valmet reports on its human rights management process in its Annual Review and on its web pages openly and transparently.

## **New social responsibility program launched**

In late 2019, Valmet initiated a new long-term social responsibility program for the company. We started to implement the program in 2020 with Save the Children to support their Child Sensitive Social Protection project in Dungarpur, India. The objectives of this project are to increase school attendance and retention, reduce child poverty, improve care for orphans and other vulnerable children, and reduce child labor and malnutrition, all of which perfectly align with our key theme, Equal Opportunities for Wellbeing. The project, which already has a good track record of accomplished improvements, will reach a total of 24,000 children and adults.

## **Progress in completion of corrective actions concerning human rights**

To ensure compliance with our human rights-related commitments, we have created a due diligence framework to manage human rights at Valmet. Valmet's framework is based on the UN Guiding Principles on Business and Human Rights, which, in addition to being a policy commitment, include responsibilities such as the active

identification and assessment of potentially negative human rights impacts in our own operations through local site-level assessments conducted by a third party.

We achieved our target of three conducted local human rights impact assessments in 2020, one year ahead of the target time. The first assessment was executed in Thailand in 2018, and in late 2019, we conducted two local human rights impact assessments in our own operations in Indonesia and in China.

The assessments were carried out by an independent third party, and they also included human rights training sessions for employees. The findings of the assessment were mainly related to employee engagement, health, safety and environmental management, and sustainable supply chain management. During 2020, we defined and started to implement the corrective action plans. At year-end, 100 percent of the corrective actions had been completed and verified in both Indonesia and China.

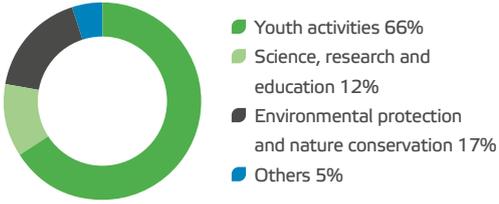
## **Keeping internal sustainability expertise up to date**

In 2020, Valmet updated its Code of Conduct. The Code guides the behavior and decisions of Valmet's employees and its partners, and creates a uniform foundation for all our business transactions and work assignments. To support the implementation of the updated Code in everyone's daily work, we launched a new e-learning course that is obligatory for all employees. The e-learning course is available in 18 languages.

We launched a sustainability e-learning course in five languages in 2018 to further increase awareness and knowledge of sustainability among Valmeteers. The training consists of three different modules, one of them being mandatory for all our white-collar employees. By the end of 2020, 63 percent of them had completed the module.

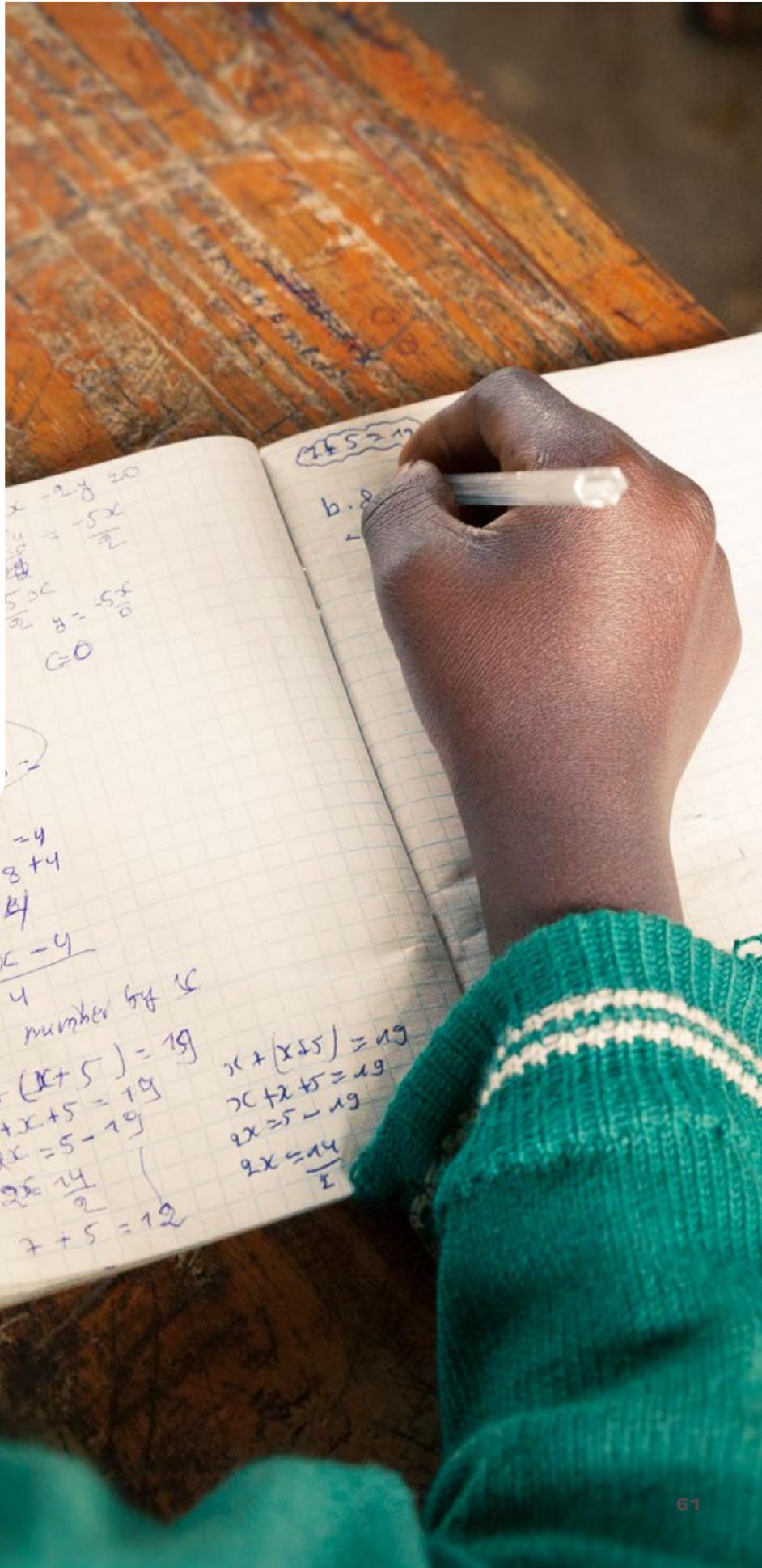
To further emphasize the importance of respecting human rights in all our operations and to highlight the role of managers in this, a new e-learning course was launched in 2020. The face-to-face human rights training sessions that were started in late 2019 continued during 2020.

**Support for non-profit organizations, %**  
EUR 265,229 in total



**INCOME TAXES**  
(10 LARGEST COUNTRIES)

EUR MILLION	2020
Finland	39.8
Brazil	10.2
China	9.8
USA	7.3
Sweden	5.4
Canada	2.6
India	1.6
Japan	1.3
Russia	0.8
Spain	0.5



## Valmet is a global leader in sustainability

Member of  
**Dow Jones Sustainability Indices**  
Powered by the S&P Global CSA



### Active engagement with stakeholders

Valmet's most relevant stakeholders are its existing and potential customers and employees, suppliers and subcontractors, shareholders and investors, media, non-governmental organizations, the authorities and local communities, research institutes, universities and vocational schools. We arrange several stakeholder meetings and events annually to encourage and maintain dialogue with them.

During the year, Valmet continued its traditional support for non-governmental humanitarian organizations working locally in youth activities, environmental protection, and research and education. Our seasonal donation was doubled and directed to The Ocean Cleanup and Plan International.

### Strong position among the world's sustainability leaders

Valmet reports to several third-party sustainability ratings. Over the years, we have been recognized for our actions and strategy in mitigating climate change, and for our management and reporting of sustainability actions.

In 2020, Valmet was included for the seventh consecutive year in the Dow Jones Sustainability Index (DJSI), positioning us among the world's sustainability leaders. We were included in both the DJSI World and Europe Indices.

Valmet also reports to CDP, an international non-profit organization that collects and assesses climate change information from companies and cities to help investors better understand the economic risks and opportunities that climate change presents to their portfolio companies.

We have been recognized for our actions and strategy to mitigate climate change by receiving the second best A- rating and achieving a leadership position in CDP's climate program ranking for the fifth year in a row.

In 2020, Valmet was also reconfirmed as a constituent of the Ethibel Sustainability Index (ESI) Excellence Europe.

In addition, Valmet received the best AAA rating in the MSCI ESG Ratings. MSCI ESG Research provides environmental, social and governance (ESG) ratings of global companies on a scale of AAA to CCC.

### Meeting investors' increasing interest in sustainability

The financial community's interest in sustainability issues and responsible (ESG) investing has continued to increase steadily. To address this interest, we are including information concerning Valmet's sustainability work and our role in responding to sustainability-related global challenges such as climate change mitigation and replacing fossil-based raw materials with renewables, in our investor relations materials and events.

In 2020, we started to develop and align our climate-related financial reporting with the Task Force on Climate-related Financial Disclosures (TCFD) recommendations, and will continue this development also in the upcoming years.

## DISTRIBUTION OF ECONOMIC VALUE ADDED TO OUR STAKEHOLDER GROUPS

Direct economic value generated

**EUR 3,762 million**



Economic value distributed



Operating costs: **EUR 2,549 million**  
Employee wages and benefits: **EUR 891 million**  
Payments to providers of capital: **EUR 136 million**  
Payments to government: **EUR 75 million**  
Support for non-profit organizations: **EUR 0.27 million**



Retained in business

**EUR 111 million**



## VALMET SUPPORTS SAVE THE CHILDREN IN DUNGARPUR, INDIA

As a global company, it is important for Valmet to enhance human rights, including children's rights, around the world. In 2020, Valmet announced its agreement with Save the Children to support their Child Sensitive Social Protection project in Dungarpur, India. The collaboration is part of Valmet's long-term social responsibility program.

Dungarpur is one of the least developed regions in Rajasthan state. The infant mortality rate is higher than the national average, and many children are malnourished, orphans or both. Child labor is very common, especially in primary production, and many children drop out of school.

Valmet donates EUR 50,000 annually to Save the Children's project, which increases children's school attendance and

retention, and improves care for orphans and other vulnerable children. The project aims to better children's circumstances by increasing access to government social protection programs.

Activating parents' and teachers' roles in children's education and wellbeing is also an important part of the project, because it is one of the most efficient ways of preventing child labor and reducing malnutrition. The project will reach a total of 24,000 children and adults.

The Save the Children project's location is well matched with Valmet's operations in India. Valmet has more than 300 employees in India, working in Chennai, Gurugam, Mumbai, Pune, Vadodara and Kolkata, as well as an active customer base and supplier network. Valmet aims to make positive impacts on the area by providing long-term support for the education and wellbeing of Dungarpur's children.

Valmet and Save the Children have also worked successfully together in the past. Valmet has global sponsorship and donation principles to define what kind of partners to work with. As Save the Children meets these requirements very well, the organization has been one of Valmet's main partners for many years.

➤ **READ MORE:**  
[valmet.com/corporate-citizenship](https://valmet.com/corporate-citizenship)

## VALMET REPORTS 2020



### ANNUAL REVIEW 2020

The report covers Valmet's market environment and the progress of its strategy, operations and sustainability in 2020.



### GRI SUPPLEMENT 2020

The report includes Valmet's sustainability reporting indicators and principles, and its alignment with the Global Reporting Initiative (GRI) Standards framework in 2020.



### CORPORATE GOVERNANCE STATEMENT 2020

The report covers Valmet's governance principles and activities, Board of Directors and management in 2020.



### FINANCIAL STATEMENTS 2020 AND INFORMATION FOR INVESTORS

The report includes Valmet's Financial Statements for 2020 and information about its share, shareholders and management.



### REMUNERATION REPORT 2020

The report covers Valmet's remuneration principles and remuneration in 2020.

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