



# Annual Review

Progress in operations  
and sustainability **2022**



Valmet in brief

President and CEO's review

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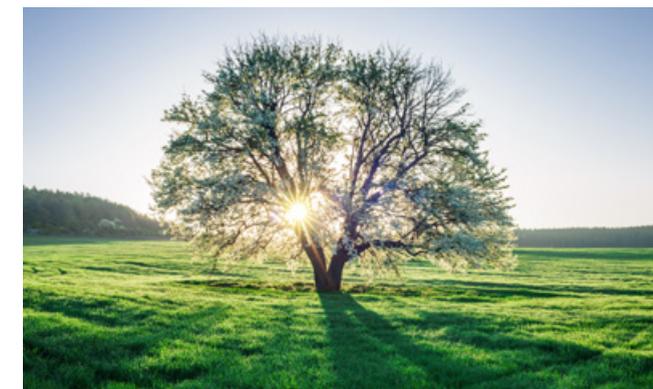
**About this report**

The report covers Valmet's market environment and the progress of its strategy, operations and sustainability in 2022.

**Valmet's Annual Report 2022**

PDFs of Valmet's Annual Review 2022, Financial Statements 2022 and Information for Investors, GRI Supplement 2022, Remuneration Report 2022 and Corporate Governance Statements 2022 can be read and downloaded at [www.valmet.com/investors/reports-and-presentations/](http://www.valmet.com/investors/reports-and-presentations/).

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# Valmet in brief

Valmet is a leading global developer and supplier of process technologies, automation and services for the pulp, paper and energy industries. With our automation systems and flow control solutions, we serve an even wider base of process industries. Our 17,500 professionals around the world work close to our customers and are committed to moving our customers' performance forward – every day.

The company has over 220 years of industrial history and a strong track record in continuous improvement and renewal. In 2022, a major milestone was achieved when the flow control company Neles was merged into Valmet.

Valmet's shares are listed on the Nasdaq Helsinki, and the head office is in Espoo, Finland.





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PRESIDENT AND CEO'S REVIEW

# Moving forward as a stronger Valmet

# “During the year, we have succeeded on many fronts, moving Valmet, our work community and our customers’ performance forward.”

In 2022, we continued to move Valmet and our customers’ performance forward based on our well-proven Must-Wins and unique offering.

Valmet’s orders received increased by 10 percent to EUR 5,194 million, and our order backlog at the end of the year was EUR 4,403 million. Net sales increased by 29 percent and amounted to EUR 5,074 million. The comparable EBITA margin was 10.5 percent.

## A major strategic milestone reached and offering complemented through acquisitions

In April, we reached a major strategic milestone when the flow control company Neles was merged into Valmet, and we welcomed 3,000 new colleagues to the company.

After the merger completion, Valmet today has a large stable business, and we provide our customers with a unique and competitive offering, covering process technologies, automation systems, flow control solutions and services. We are happy with the successful integration and strong start of the new Flow Control business line as part of Valmet.

In addition to the merger, we continued smaller-scale strategic acquisitions to strengthen Valmet’s offering and local presence in growth areas. In March 2022, we acquired the North American -based pulp and paper consumables provider Coldwater to strengthen our services business. In November, we entered into an agreement to acquire the process solutions business from NovaTech Automation in the USA. The acquisition was completed in early January 2023. We also strengthened our position as a metals and mining sector flow control solution provider by successfully integrating the Flowrox™ offering into our portfolio.

## Excellent progress based on the renewed Sustainability agenda

Sustainability is fully integrated into Valmet’s strategy and operations through the comprehensive Sustainability360° agenda. In 2022, we renewed the agenda to highlight the impact of Valmet’s sustainability work on its entire value chain and to cover all material environmental, social and governance aspects for sustainability.

We also progressed systematically in the implementation of our Climate Program – Forward to a carbon neutral future – covering our supply chain, our own operations, and the use phase of our technologies and services. During this first full year of the program, detailed roadmaps were created, and the implementation of the set targets continued. We are collaborating closely with our customers to enable carbon neutral production in their mills and plants, and we have successfully started to engage with the highest emitting suppliers in our supplier sustainability engagement program, where CO<sub>2</sub> emissions reduction is one of the key targets.

Furthermore, to support our customers in the green transition, we launched a new R&D and innovation program called Beyond Circularity. The program aims to further strengthen Valmet’s R&D work to develop process technologies, automation and

services to utilize renewable materials and recycled, waste and sidestreams.

In 2022, Valmet continued to receive recognition for the progress of its sustainability work in various sustainability ratings and was included for the ninth consecutive year in the Dow Jones World and Europe Sustainability Indices and received an A- leadership rating in CDP’s Climate ranking.

## Good resilience and adaptation capability in a continuously changing world

During the year, we have succeeded on many fronts, moving Valmet, our work community and our customers’ performance forward. Together with our customers, we have truly made a difference.

The global turbulence due to the war in Ukraine and economic and political developments is expected to continue. Past years have shown that we at Valmet can adapt well to continuous changes and will also continue to remain resilient in the changing environment in the future.

I thank every Valmeteer for their excellent work and commitment in moving Valmet and our customers’ performance forward. I want to express my warmest thanks to our customers around the world for the trust you have shown. I am looking forward to our continued collaboration in 2023!

### Pasi Laine

President and CEO

# Key events in 2022

## Sustainability360° agenda renewed

Valmet renewed its Sustainability360° agenda. The new agenda includes environmental, social and governance (ESG) perspectives in sustainability and covers Valmet's entire value chain, including the supply chain, our own operations and the use phase of Valmet's technologies.



## Beyond Circularity program launched to boost green transition

Valmet launched a new R&D and innovation program called Beyond Circularity, which improves Valmet's readiness to support the green transition in Valmet's customer industries based on the company's technology vision 2030. The program aims to further strengthen Valmet's R&D work in order to develop process technologies, automation and services for utilizing renewable materials and recycled, waste and sidestreams. Valmet plans to invest EUR 40 million in the program during the upcoming four-year period. The program is partly funded by Business Finland and is part of the "Veturi" initiative.



## A major delivery to Eren Paper's Shotton Mill

Valmet will supply Old Corrugated Containers (OCC), stock preparation and container board lines with a large scope of automation systems, Industrial Internet solutions and services to Eren Paper's Shotton Mill Limited in the United Kingdom. The new container board making line (PM 3) will produce high-quality testliner and fluting grades, and it will use 100 percent recycled paper. The start-up of PM 3 is scheduled for the second quarter of 2024.

February 16, 2022 — March 1, 2022 — March 8, 2022 — April 1, 2022 — April 28, 2022 — May 4, 2022 — May 7, 2022

## North American-based Coldwater acquired

Valmet strengthened its services business by acquiring North American-based Coldwater Seals, Inc., a global provider of consumables and services to the pulp and paper industry. Coldwater operates manufacturing facilities in the United States and Sweden. Coldwater manufactures and supplies paper process parts, including suction roll seal strips, ceramics, plastics, doctoring products and other specialty products. The acquired operations employ about 60 people.



## Merger of Neles into Valmet completed

Valmet and Neles announced that the statutory merger of Neles into Valmet had been registered with the Finnish Trade Register. As a result of the registration of the completion of the merger, Neles was consolidated into Valmet and formed Valmet's fifth business line, called Flow Control. Due to the completion of the merger, Valmet also updated its guidance for 2022 and confirmed its new financial targets.

## Valmet to supply a fine paper making line to Asia Symbol

Valmet will supply a fine paper making line with stock preparation and an extensive scope of automation to Asia Symbol (Shandong) Pulp and Paper in Rizhao, Shandong province, China. The new high-capacity fine paper making line is designed to produce top-quality woodfree uncoated paper (WFU) grades. The start-up of the new production line PM 14 is scheduled for 2023.

## Fire at the Rautpohja factory in Finland

A fire broke out at Valmet's Rautpohja factory site in Jyväskylä, Finland. The fire, which started at a workshop during a roll test, caused damage to parts of the roll and headbox manufacturing and preassembly. The majority of machine workshops at the Rautpohja factory site suffered only minor damage and temporary disruptions in operations due to the fire.

# Key events in 2022



## Valmet progresses with its new office building in Vantaa, Finland

Valmet signed an agreement with the property investment company Sponda Ltd on the renting of a new office building that will be designed for Valmet and constructed in Tikkurila, Vantaa in Finland. Valmet's rented floor area in the building will be approximately 13,000 floor square meters. Construction work is estimated to be completed by the end of 2024. More than 700 people from Valmet's Järvenpää and Hakkila locations will move into the new building.

## The inauguration of 3D fiber product pilot plant

Valmet and Metsä Group celebrated the official inauguration of a 3D fiber product pilot plant in Äänekoski, Finland. The investment project was decided in the fall of 2020, and the operations at the pilot plant began in May 2022. The joint venture between Valmet and Metsä Group's innovation company Metsä Spring is tackling global environmental challenges by creating sustainable solutions for the world's packaging needs.



## Recognition in the Dow Jones Sustainability Index and in CDP's Climate ranking

Valmet was included in the Dow Jones Sustainability Index (DJSI) for the ninth consecutive year. The company was listed in both the Dow Jones Sustainability World and Europe indices. Valmet also received an A- rating and reached a leadership level in CDP's Climate ranking.

May 9, 2022

## Valmet and Circa to partner in sustainable biochemicals production

Valmet signed a Heads of Agreement with Circa to industrialize the production of sustainable biochemicals at Circa's small-scale ReSolute plant in France and future large-scale production plants. Valmet will offer the main machinery and equipment and actively contribute to the development of Circa's production processes of bio-based renewable solvents. Circa's plan is to reach an annual production capacity of 80,000 tonnes by 2030. In November, Valmet also announced that it would deliver a pyrolyzer plant to the project.

May 24, 2022

## Withdrawal from Russia

Valmet announced that it has progressed in reviewing its operations in Russia and implementing its exit plan. Valmet continued to implement the withdrawal in stages during 2022.

June 3, 2022

August 18, 2022



## Investment in press felt production in Finland

Valmet is further developing its press felt production facilities in Tampere, Finland by investing EUR 18 million in new press felt machinery and equipment. The investment includes a new pre-needling line and a new needling line.

August 22, 2022

November 9, 2022

## Valmet entered into an agreement to acquire NovaTech Automation's Process Solutions business

Valmet strengthened its automation offering by entering into an agreement to acquire U.S.-based NovaTech Automation's Process Solutions business. The acquisition was completed in early January, 2023. NovaTech Automation's Process Solutions business specializes in process control and optimization solutions for batch, continuous and hybrid processes. It has a turnover of approximately USD 18 million and employs more than 70 people in the United States and in the Netherlands and Belgium.

December 12–13, 2022

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# This is Valmet



# Key figures

| Financial <sup>1</sup>                                     | 2022              | 2021  | CHANGE |
|--|-------------------|-------|--------|
| Orders received, EUR million                               | 5,194             | 4,740 | 10%    |
| Services   | 1,756             | 1,481 | 19%    |
| Automation   | 1,081             | 467   | >100%  |
| Flow Control   | 576               | —     |        |
| Automation Systems   | 505               | 467   | 8%     |
| Process Technologies                                       | 2,356             | 2,793 | -16%   |
| Pulp and Energy  | 1,072             | 1,160 | -8%    |
| Paper  | 1,285             | 1,634 | -21%   |
| Order backlog <sup>2</sup> , EUR million                   | 4,403             | 4,096 | 7%     |
| Net sales, EUR million                                     | 5,074             | 3,935 | 29%    |
| Comparable EBITA <sup>3</sup> , EUR million                | 533               | 429   | 24%    |
| % of net sales   | 10.5%             | 10.9% |        |
| Operating profit (EBIT), EUR million                       | 436               | 399   | 9%     |
| % of net sales   | 8.6%              | 10.1% |        |
| Dividend per share, EUR                                    | 1.30 <sup>4</sup> | 1.20  | 8%     |
| Return on capital employed (ROCE) before taxes EUR million | 18%               | 24%   |        |
| Research and development expenses, net, EUR million        | 95                | 82    | 16%    |

| Social   | 2022   | 2021   | CHANGE |
|--|--------|--------|--------|
| Personnel <sup>2</sup>                                     | 17,548 | 14,246 | 23%    |
| Total recordable incident frequency (TRIF) <sup>2, 5</sup> |        |        |        |
| Own employees  | 3.2    | 3.1    | 3%     |
| Contractors  | 4.7    | 6.8    | -31%   |
| Safety committee coverage, % personnel                     | 92     | 97     | -5%    |
| Support for non-profit organizations, EUR thousand         | 415    | 309    | 34%    |
| Number of supplier sustainability audits                   | 45     | 41     | 10%    |

| Environmental <sup>6</sup>                       | 2022  | 2021  | CHANGE |
|--|-------|-------|--------|
| CO <sub>2</sub> emissions <sup>7</sup> , 1,000 t | 86    | 103   | -16%   |
| Energy consumption, GWh                          | 422   | 423   | -0.2%  |
| Water consumption, 1,000 m <sup>3</sup>          | 1,681 | 1,551 | 8%     |
| Waste, 1,000 t                                   | 43    | 42    | 2%     |

<sup>1</sup> Group figures: the formulas for calculating the key financial figures are presented in the Financial Statements 2022.

<sup>2</sup> At the end of the period.

<sup>3</sup> Comparable earnings before interest, taxes and amortization.

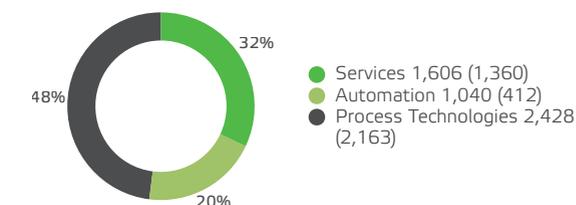
<sup>4</sup> Board of Directors' proposal.

<sup>5</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. 2021 TRIF for contractors restated due to one incident investigated during 2022.

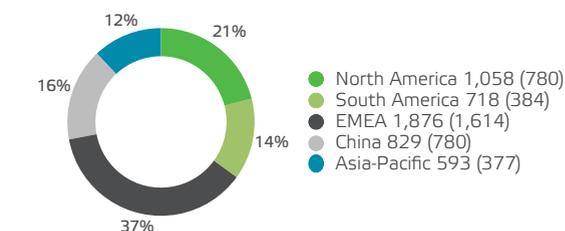
<sup>6</sup> Environmental data, including Scope 1 and 2 (market-based) emissions. New Flow Control business line included starting 1 April, 2022. Water consumption and waste restated for 2021 due to minor corrections in the data.

<sup>7</sup> Scope 1 and 2 (market-based) emissions.

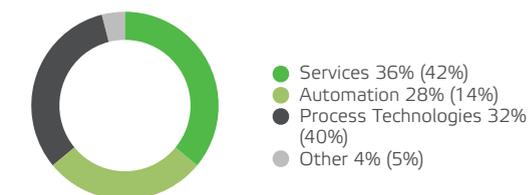
## Net sales by segment, EUR million



## Net sales by area, EUR million



## Personnel by segment, %



## Personnel by region, %



# Value creation

## INPUTS

### Resources we need to create value



Financial

#### Financial

- Total equity EUR 2,501 million
- Net interest-bearing debt EUR 502 million
- Cash and cash equivalents EUR 277 million



Natural

#### Natural

- Purchased components (mainly metals-based)
- Purchased raw materials (mainly metals, minerals, polymers and gas)
- Energy consumption 422 GWh
- Water consumption 1,681,000 m<sup>3</sup>



Human

#### Human

- Number of employees 17,548
- 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

- More than 270 locations in more than 40 operating countries<sup>2</sup>
- More than 50 production units and more than 130 service centers
- More than 120 sales offices
- Suppliers in around 60 countries
- Distributors



Brand and intellectual

#### Brand and intellectual

- Proven customer references
- Technology expertise
- Product portfolio
- 28 technology centers and pilot facilities
- R&D expenses EUR 95 million
- 1,300 protected inventions
- Valmet brand



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



#### Our employees, expertise and experience

#### Valmet's Way Forward:

Mission, Strategy, Must-Wins, Vision and Values



## OUTPUTS

We develop and supply process technologies, automation and flow control 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 to fuels, chemicals and materials

#### Automation systems

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

#### Flow control solutions

- Valves
- Pumps
- Valve controls, actuators and limit switches
- Valve spare parts
- Services and Industrial Internet solutions

#### Services

- Spare and process parts
- Workshop and roll services
- Fabrics
- Maintenance development and outsourcing
- Field services
- Process upgrades
- Industrial Internet solutions

#### Other outputs

##### CO<sub>2</sub> emissions:

- Scope 1<sup>3</sup>: 21,100 tCO<sub>2</sub>
- Scope 2<sup>4</sup>: 65,100 tCO<sub>2</sub>
- Scope 3<sup>5</sup>: 76,345,000 tCO<sub>2</sub>

##### Waste

- Non-hazardous waste 40,134 t
- Hazardous waste 3,335 t



## OUTCOMES

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

#### Economic

- Wages and benefits EUR 1,171 million
- Payments to suppliers EUR 3,259 million
- Taxes EUR 112 million
- Support for non-profit organizations EUR 0.415 million
- Retained equity EUR 139 million
- Payments to shareholders and creditors EUR 201 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



Board and paper



Energy and industrial gas



Biomaterials and fuels



Chemicals



Minerals



<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 offsite but purchased by Valmet.

<sup>5</sup> Scope 3 data cover four selected relevant categories; category 1: purchased goods and services; category 4: upstream transportation and distribution; category 6: business travel; category 9: downstream transportation and distribution; and category 11: use of sold products. All figures are from December 31, 2022, unless otherwise stated.

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# 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 17,500 professionals around the world and have customers in more than 100 countries. We operate more than 130 service centers, more than 50 production units, more than 120 sales offices, and 28 R&D centers around the world to move our customers' performance forward.

## NORTH AMERICA

3 R&D Centers  
29 service centers  
17 production units  
11 sales offices

**2,040**  
NET SALES  
EUR MILLION **1,058**

## SOUTH AMERICA

5 service centers  
1 production units  
8 sales offices

**833**  
NET SALES  
EUR MILLION **718**

## EMEA

20 R&D centers  
86 service centers  
24 production units  
76 sales offices  
Head office

**10,787**  
NET SALES  
EUR MILLION **1,876**

## CHINA

3 R&D Centers  
5 service centers  
6 production units  
6 sales offices

**2,323**  
NET SALES  
EUR MILLION **829**

## ASIA-PACIFIC

2 R&D Centers  
11 service centers  
6 production units  
29 sales offices

**1,565**  
NET SALES  
EUR MILLION **593**



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[valmet.com](http://valmet.com)

# Market data by area

| AREA   | MARKET CHARACTERISTICS  | VALMET'S POSITION  |
|--|---|--|
| <b>North America</b>                         | <ul style="list-style-type: none"> <li>• Mature market with large aging installed base creating service and automation demand, as well as demand for renewals and rebuilds</li> <li>• Continued customer focus on availability, reliability, operating costs, including energy and environmental savings in mills</li> <li>• Rebuild and new capacity demand in board and tissue grades. Capacity closures in printing papers. Rebuild and upgrade demand in pulp</li> <li>• Flow Control demand in renewable energy and gas, metals and mining, and other process industries, while expanding service by installed base management</li> </ul>  | <ul style="list-style-type: none"> <li>• Net sales: <b>EUR 1.1 bn</b> (21% of total net sales of the company)</li> <li>• Net sales range 2018–2022: <b>EUR 0.7–1.1 bn</b></li> <li>• Employees<sup>1</sup>: <b>2,040</b></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>                         | <ul style="list-style-type: none"> <li>• Service growth driven by demand for higher availability, reliability, lower operational costs, environmental considerations, agreements-based business, as well serving new installed capacity</li> <li>• Process technology business driven by large pulp mill investments and continuous demand in rebuilds and upgrades</li> <li>• Demand for board and tissue with new lines and rebuilds</li> <li>• Automation Systems demand in pulp and paper</li> <li>• Flow Control demand in pulp and paper, and metals and mining</li> </ul>  | <ul style="list-style-type: none"> <li>• Net sales: <b>EUR 0.7 bn</b> (14% of total net sales of the company)</li> <li>• Net sales range 2018–2022: <b>EUR 0.2–0.7 bn</b></li> <li>• Employees<sup>1</sup>: <b>833</b></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, 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> | <ul style="list-style-type: none"> <li>• Valmet's largest area with significant services, process technology and automation markets in all Valmet's businesses and the largest installed base</li> <li>• Services growth potential through a broader service offering, agreements-based business, and new value-added solutions to increase customers' productivity, efficiency, energy savings and environmental impact</li> <li>• Process technology demand in board, tissue, pulp and energy, driven by an increasing focus on sustainability and energy savings, and growth in packaging and tissue consumption</li> <li>• Automation Systems and Flow Control demand in board, pulp and tissue, and other process industries driven by large installed base and new investments</li> </ul> | <ul style="list-style-type: none"> <li>• Net sales: <b>EUR 1.9 bn</b> (37% of total net sales of the company)</li> <li>• Net sales range 2018–2022: <b>EUR 1.5–1.9 bn</b></li> <li>• Employees<sup>1</sup>: <b>10,787</b></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>                                 | <ul style="list-style-type: none"> <li>• Growing services market driven by new board and tissue capacity, demand for energy savings, efficiency improvements and reliability, and a growing mill maintenance outsourcing trend</li> <li>• Process technology demand in board, tissue, pulp, and energy impacted by growing consumption, stricter environmental regulation and demand for CO<sub>2</sub> neutral energy</li> <li>• Automation Systems and Flow Control growth from growing installed base and new investments in pulp and paper</li> </ul>   | <ul style="list-style-type: none"> <li>• Net sales: <b>EUR 0.8 bn</b> (16% of total net sales of the company)</li> <li>• Net sales range 2018–2022: <b>EUR 0.5–0.8 bn</b></li> <li>• Employees<sup>1</sup>: <b>2,323</b></li> <li>• Valmet is the leader in pulp and paper process technology and has a strong position in services and the pulp and paper automation market</li> <li>• Strong competition from local and global competitors</li> </ul>  |
| <b>Asia-Pacific</b>                          | <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 demand in rebuilds and new capacity in pulp, board and tissue, and in renewable energy projects</li> <li>• Automation Systems and Flow Control demand in new pulp and paper capacity and other process industries</li> </ul>  | <ul style="list-style-type: none"> <li>• Net sales: <b>EUR 0.6 bn</b> (12% of total net sales of the company)</li> <li>• Net sales range 2018–2022: <b>EUR 0.4–0.6 bn</b></li> <li>• Employees<sup>1</sup>: <b>1,565</b></li> <li>• Leading position in pulp and paper process technology, and increasing local presence</li> <li>• Increasing competition from Chinese players moving into the Asia-Pacific</li> </ul>  |

<sup>1</sup> Includes employees from the Area organization and other employees in the geographical region.

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# Business reviews



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- Paper

# Segments

Valmet changed its financial reporting in 2022 to three reportable segments to better highlight the performance of its businesses.

Since January 1, 2022, Valmet has had a new financial reporting structure, consisting of three reportable segments. The segments are Services, Automation and Process Technologies. The Services segment consists of the Services business line, the Automation segment of the Flow Control (from April 1, 2022) and Automation Systems business lines, and the Process Technologies segment of the Pulp and Energy, and Paper business lines. The Automation Systems business line was previously called Automation.

The new segments' structure was introduced to better highlight the performance of Valmet's businesses. The structure reflects Valmet's operational model and the integration of Neles into Valmet, and it is aligned with how Valmet's management follows the operational performance of Valmet's segments. Each segment has a strong position in the growing market for converting renewables into sustainable results and long-term growth possibilities supported by favorable megatrends.

In its reporting, Valmet discloses the orders received, net sales and profitability of the segments. Valmet also reports the orders received and net sales of its business lines.

## SERVICES

The Services segment provides customers with flexible and fit-for-purpose services throughout the lifecycle to improve process performance and reliability. The Services segment consists of the Services business line.

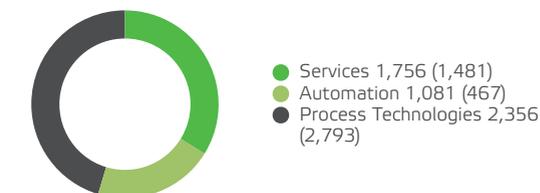
## AUTOMATION

The Automation segment delivers flow control technologies and services, as well as automation solutions, ranging from single measurements to mill- or plant-wide process automation systems. The Automation segment consists of the Flow Control and Automation Systems business lines.

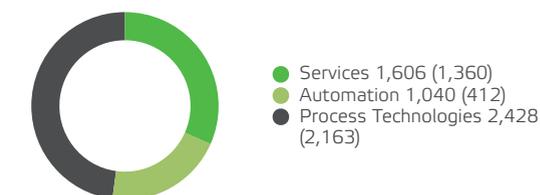
## PROCESS TECHNOLOGIES

The Process Technologies segment provides technology solutions for pulp and energy production, as well as for biomass conversion and emission control, and complete production lines, machine rebuilds and process components for board, tissue and paper production. The Process Technologies segment consists of the Pulp and Energy, and Paper business lines.

Orders received by segment, EUR million



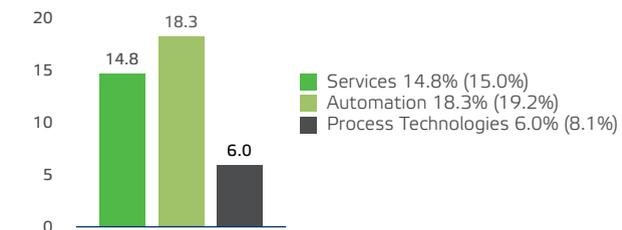
Net sales by segment, EUR million



Comparable EBITA by segment, EUR million<sup>1</sup>



Comparable EBITA by segment, % of net sales



# Business lines

## SERVICES

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

NET SALES, EUR MILLION

1,606

#1-2 IN SERVICES

ORDERS RECEIVED,  
EUR MILLION

1,756

## FLOW CONTROL

The Flow Control business line delivers mission-critical flow control technologies and services for the continuously evolving needs of various process industries. We help our customers to improve their process performance and environmental efficiency, and to ensure the safe flow of materials.

NET SALES, EUR MILLION

551

#1 IN PULP AND PAPER

ORDERS RECEIVED,  
EUR MILLION

576

## AUTOMATION SYSTEMS

The Automation Systems business line delivers automation solutions ranging 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, quality management, raw material and energy efficiency, and cost-effectiveness.

NET SALES, EUR MILLION

489

#1-3 IN AUTOMATION  
SYSTEMS

ORDERS RECEIVED,  
EUR MILLION

505

## PULP AND ENERGY

The Pulp and Energy business line provides technology 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 the environmental impact.

NET SALES, EUR MILLION

1,081

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

ORDERS RECEIVED,  
EUR MILLION

1,072

## 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

1,347

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

ORDERS RECEIVED,  
EUR MILLION

1,285

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

# Market data by business

| BUSINESS           | MARKET SIZE <sup>1</sup> | MARKET DRIVERS  | PRODUCT GROUP                     | VALMET'S POSITION              | COMPETITION  |
|--------------------|--------------------------|---|-----------------------------------|--------------------------------|--|
| Services           | EUR<br>8.0 bn            | <ul style="list-style-type: none"> <li>Increasing pulp, tissue, board and energy production and capacity utilization</li> <li>Customer demand for resource efficiency, productivity, end-product quality, Industrial Internet services and reduced environmental impact</li> <li>Customer focus on core operations, decreasing their own resources and outsourcing of non-core operations</li> <li>Size and gradual aging of installed base and capacity increases</li> <li>Closures and conversions of uncompetitive production lines</li> </ul> | Mill Improvements                 | #1-2                           | Andritz, Bellmer, Voith  |
|                    |                          |   | Performance Parts                 | #1-2                           | Andritz, Kadant, Voith   |
|                    |                          |   | Fabrics                           | #6                             | Albany, Andritz, AstenJohnson, Voith   |
|                    |                          |   | Rolls and Workshop                | #1-2                           | Andritz, Voith   |
|                    |                          |   | Energy and Environmental          | #3-4                           | Andritz, Babcock & Wilcox, Sumitomo SHI FW   |
| Flow Control       | EUR<br>14.0 bn           | <ul style="list-style-type: none"> <li>Large installed base with demand for valve maintenance and repair</li> <li>Investments in new projects and renewal investments to add capacity, upgrade and replace</li> <li>Growing sustainability requirements for customers' products and processes, e.g. biofuels and needs to mitigate emissions in production</li> <li>Growing automation levels and digitalization are driving investment into more automated valves/control valves and services</li> </ul>   |                                   | #1 in pulp and paper           | Emerson, Flowserve, Samson, Rotork   |
|                    |                          |   |                                   | #5-7 in refining and chemicals |  |
|                    |                          |   |                                   | #5-7 in metals and mining      |  |
| Automation Systems | EUR<br>2.1 bn            | <ul style="list-style-type: none"> <li>Aging machines and installed automation systems</li> <li>Investments in new pulp and paper production lines and industrial decarbonization</li> <li>Demand for raw material savings, process efficiencies and sustainability</li> <li>Demand for Industrial Internet-based solutions driven by customer digitalization</li> </ul>  | Distributed Control Systems (DCS) | #2-3 in pulp and paper         | ABB, Emerson, Honeywell, Siemens, Yokogawa, Wartsilä   |
|                    |                          |   | Quality Management System (QMS)   | #1-2 in pulp and paper         |  |
|                    |                          |   | Analyzers and measurements        | #1 in pulp and paper           |  |
| Pulp               | EUR<br>2.0-2.5 bn        | <ul style="list-style-type: none"> <li>Growing demand for sustainable packaging, tissue, hygiene products and textiles</li> <li>Increasing environmental awareness and stricter regulations</li> <li>Fiber-based plastic replacement</li> <li>Demand for second-generation bioethanol and biochemicals</li> <li>Decarbonization in energy production</li> <li>Biomass and residual waste used in heat and process steam production</li> <li>Stricter air emissions legislation and directives</li> </ul>  |                                   | #1-2                           | Andritz  |
| Energy             | EUR<br>2.0 bn            | <ul style="list-style-type: none"> <li>Decarbonization in energy production</li> <li>Biomass and residual waste used in heat and process steam production</li> <li>Stricter air emissions legislation and directives</li> </ul>   |                                   | #1-3                           | Valmet is one of the few global players in the bioenergy niche<br>Andritz, Sumitomo SHI FW, regional competitors |
| Board              | EUR<br>1.0 bn            | <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>   |                                   | #1                             | Voith  |
| Paper              | EUR<br>0.3 bn            | <ul style="list-style-type: none"> <li>Increasing role of digital media decreases demand for print papers</li> <li>Demand for technology-driven efficiency improvements</li> <li>Need for specialty papers</li> </ul>   |                                   | #1                             | Voith  |
| Tissue             | EUR<br>0.7 bn            | <ul style="list-style-type: none"> <li>Increase in purchasing power and rising living standards</li> <li>Urbanization and improved hygiene</li> <li>Fast economic growth in emerging markets</li> <li>Demand for higher quality</li> <li>Consumers' better hygiene habits</li> </ul>  |                                   | #1                             | Andritz, Voith   |

<sup>1</sup> Board, paper, tissue, pulp, energy and flow control: Market position and estimated market size calculated as an average during 2020-2022.



BUSINESS REVIEW

# Services

Valmet's Services business line provides our customers with flexible and fit-for-purpose services throughout the lifecycle to improve process performance and reliability. In 2022, the acquisition of the North American-based Coldwater successfully expanded the consumables offering.

NET SALES  
EUR MILLION

1,606

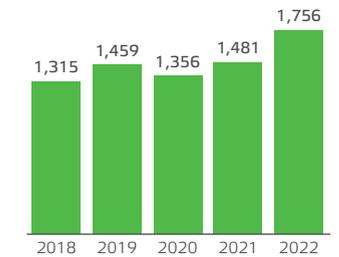
ORDERS RECEIVED  
EUR MILLION

1,756

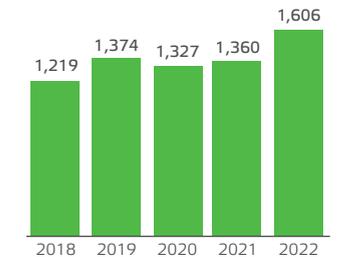
NUMBER OF  
EMPLOYEES

6,307

Orders received, EUR million<sup>1</sup>



Net sales, EUR million<sup>1</sup>



<sup>1</sup> 2018–2020 figures have not been restated to reflect the new segment reporting structure, which Valmet implemented as of January 1, 2022.

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SERVICES

Key innovations in 2022

- Valmet Mobile Maintenance application streamlines maintenance and production personnel's work
- Valmet Press Felt Cover PL leads to energy savings in tissue production
- Valmet Press Felt EMX M provides excellent runnability and high dewatering in board machines
- Valmet Enzymatic Starch Cooking ZE: a zero effluent process for enzymatic starch cooking for board and paper makers

Valmet's services are 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. The service solution can be provided as a one-time delivery or as a longer-term partnership through service agreements, which played an increasing role during 2022, offering a systematic approach to improving customers' performance.

The Services business line provides services and solutions mainly for the pulp, board and paper, tissue, and energy industries. The offering ranges from 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 by onsite and remote Industrial Internet solutions. Valmet also provides learning services that give customers access to more than 200 courses and a variety of training courses. Services are offered globally through more than 130 service centers and by approximately 6,000 service professionals.

Lifecycle collaboration with customers

Valmet's 'way to serve' Services approach focuses on the lifecycle collaboration between the customer and Valmet. The aim is to provide the best customer experience at all the touchpoints of the customer journey and emphasize the value provided through collaboration over the lifecycle.

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

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.

New offering and actions to enhance climate-friendly operations

To reduce CO<sub>2</sub> emissions and simultaneously achieve customer mills' and plants' competitiveness, profitability and sustainability targets, new innovations and services are needed.

In March 2022, Valmet announced the acquisition of Coldwater, a global provider of consumables and services to the pulp and paper industry. The acquisition strengthened Valmet's services business and expanded the consumables offering.

Valmet also announced it would further develop its production facilities in Tampere, Finland by investing around EUR 18 million in new press felt machinery and equipment with the aim of operating the most modern, efficient and sustainable press felt production unit in the industry.

To streamline maintenance personnel's and production operators' work, the Valmet Mobile Maintenance application

was launched, making maintenance data available at any time and creating smoother workflows in maintenance. To enhance predictive maintenance, new reliability monitoring applications for fiber processing equipment were also launched, bringing a powerful new component to the Valmet Industrial Internet offering.

Valmet's new starch cooking system has a smaller carbon footprint as it causes less starch waste compared to conventional cooking process and utilizes the waste energy that is generated in the process. The innovations related to the cooking system result in energy savings and decreased load and cost for waste water treatment.

To broaden its services for tissue machines, Valmet launched a new polyurethane roll cover, Valmet Press Roll Cover PL, as well as a new service agreement for tissue producers to improve the performance and safety of the Yankee cylinder, hood, and air system. Valmet also signed a contract for an additional three years to the Performance Agreement with the Greenpac Mill in Niagara Falls, New York, USA.

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



➤ Collaboration increases sustainable production

The Performance Agreement supports Greenpac in the USA in meeting their production targets and ensuring quality standards.

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BUSINESS REVIEW

# Flow Control

In April 2022, a major milestone was achieved when the flow control company Neles was merged into Valmet. Its business and operations have been organized in Valmet as the Flow Control business line, delivering mission-critical flow control innovations, technologies, and services for the continuously evolving needs of various process industries. Valmet's newest business line helps customers improve their process performance and environmental efficiency and ensure the safe flow of materials.

NET SALES  
EUR MILLION

551

ORDERS RECEIVED  
EUR MILLION

576

NUMBER OF  
EMPLOYEES

2,792

## FLOW CONTROL

### Key innovations in 2022

- Neles™ Q-Disc™ to improve process performance in demanding control valve applications
- Neles™ NDX™ 2.0 valve controller for more sustainable industrial processes

The Flow Control business line's valves, pumps and valve automation technologies are known for quality, reliability, and the highest safety. Our customers operate in a variety of process industries, including the pulp, paper and bioproducts industry, renewable energy, oil and gas refining, mining and metals processing, and chemicals. Our flow control solutions allow them to produce materials that keep our societies and infrastructures up and running. Wherever liquid or gas is moved in a pipe, valves are involved. The role valves play in the productivity and safety of process plants makes them mission-critical.

#### Valves, spare parts and maintenance always at hand

Valmet's flow control expertise is based on over 65 years of innovations. New innovations and environmentally sustainable solutions are actively developed in close cooperation with customers to meet their needs and objectives. Customers are increasingly focusing on efficiency, reliability and effective maintenance to avoid disruptions in their processes: Valves, spare parts and services must be at hand when they are needed. The business line employs nearly 3,000 industry professionals and serves customers in more than 100 countries in good cooperation with its sales and service partners.

#### New company, strengthened position

The Flow Control business line has started strongly as part of Valmet. It has strengthened its position in metals and mining through a team of industry experts, the Flowrox™ offering and the partner channel into the portfolio. In May 2022, the business line announced the opening of a new service center in Chile to better support especially the region's mining customers.

In renewable energy and gases, the business line took an important step forward by winning orders in gigawatt-scale green hydrogen projects. As for product development, the butterfly valve range was extended with Neles™ Q-Disc™, a high-performance feature to help flow balancing in control valve applications. In November, Neles™ NDX™ 2.0, a next-generation intelligent valve controller for more sustainable industrial processes, was introduced.

#### > READ MORE:

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



#### > Sustainable valve solutions

The project to modernize valves at Mercer's pulp mill in Germany will bring significant energy savings and reduce CO<sub>2</sub> emissions.

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BUSINESS REVIEW

# Automation Systems

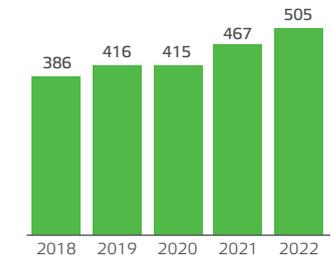
The Automation Systems business line's offering ranges from single measurements to mill- or plant-wide process automation systems, products and services to maximize the profitability and sustainability of our customers' businesses. The business line is continuously innovating new solutions and launched several new products and applications in 2022.

NET SALES  
EUR MILLION  
**489**

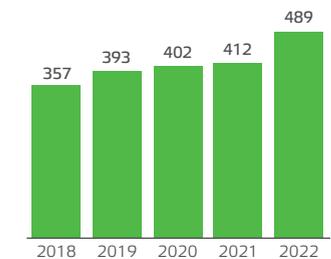
ORDERS RECEIVED  
EUR MILLION  
**505**

NUMBER OF  
EMPLOYEES  
**2,050**

Orders received, EUR million<sup>1</sup>



Net sales, EUR million<sup>1</sup>



<sup>1</sup> 2018–2020 figures have not been restated and include internal orders received and net sales.

## AUTOMATION SYSTEMS

### Key innovations in 2022

- Valmet DNA Wireless Condition Monitoring for an early stage fault detection of rotating machinery
- Valmet DNA User Interface for intuitive use of marine automation in a wide range of vessel types
- Fiber furnish control solution for stable refined pulp quality in board and paper mills
- Retention analyzer measuring total and true ash consistencies at paper machine wet end
- Real-time flame detection and monitoring application for waste-to-energy grate boilers

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

Valmet offers its automations systems lifetime compatibility and ongoing support, delivered with expertise to customers' processes.

#### Maximizing profitability and sustainability

Valmet's automation solutions are designed to maximize the profitability and sustainability of customers' businesses by improving production performance, quality management and cost, energy and material efficiency. We have delivered nearly 5,000 automation systems and more than 100,000 analyzers and

measurements. More than 1,200 power plants worldwide feature Valmet's process automation.

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

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

#### New solutions and deliveries worldwide

In 2022, Valmet's Automation Systems business line launched several new products and applications.

For example, a renewed Valmet DNA Online Condition Monitoring solution was brought to the market, providing automated anomaly detection technology and connection to both wired and wireless vibration sensors for all industries.

Leveraging new technologies, the Automation Systems business line also launched its innovative web-based Valmet DNA User Interface for the marine segment. It offers a new experience in controlling and monitoring a vessel's machinery systems.

As the world's leading supplier of analyzers and measurements for the pulp and paper industry, we are continuously innovating new solutions to increase the efficiency of pulp and paper making. For instance, the new Valmet Retention Measurement is capable of measuring total and true ash consistencies accurately, forming a solid base for advanced process monitoring and control. We also introduced Valmet Fiber Furnish Control for board and paper makers: the application stabilizes refiner operation for maximized production efficiency with ensured furnish quality. Another new application, the Valmet Grate Combustion Vision

for moving grate boilers in waste-to-energy plants improves flame control and helps with combustion optimization.

In addition to an impressive number of orders received in 2022, the business line made a long-term collaboration agreement for extensive distributed control systems and digitalization development with Mercer International. For example, in the energy and process business, the focused approach resulted in a Valmet DNA automation system order for Neste's new biofuels refinery in Rotterdam, Netherlands.

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



#### ➤ Integrated automation solution helps Asia Symbol Guangdong improve efficiency

After four months of operation, the speed of PM 13 has reached 1,610 m/min – a new record.



BUSINESS REVIEW

# Pulp and Energy

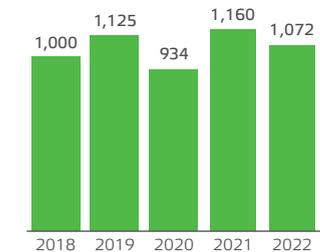
The Pulp and Energy business line provides technology solutions for pulp and energy production, as well as for biomass conversion and emission control. In 2022, the production ramp-up was started in the new LD Celulose pulp mill in Brazil, where Valmet delivered the key process islands and integrated automation solutions. Another major step for the business line was partnering with Circa in the industrialization of sustainable biochemicals production.

NET SALES  
EUR MILLION  
**1,081**

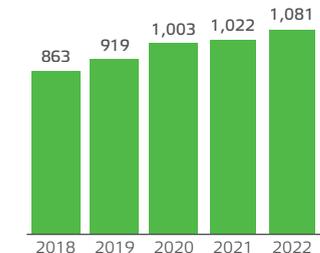
ORDERS RECEIVED  
EUR MILLION  
**1,072**

NUMBER OF  
EMPLOYEES  
**1,892**

Orders received, EUR million<sup>1</sup>



Net sales, EUR million<sup>1</sup>



<sup>1</sup> 2018–2020 figures have not been restated to reflect the new segment reporting structure, which Valmet implemented as of January 1, 2022.

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## PULP AND ENERGY

### Key innovations in 2022

- Fluidized bed pre-combustion chamber for agricultural residues
- Competitive two-stage flash dryer for pulp (BCTMP)
- Stationary lime cooler for improved energy efficiency
- Recovery of biochemicals in BioTrac steam explosion process

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. Its customers are mainly pulp producers and power and heat producers. The most important geographical markets are Europe, South America and Asia.

Valmet's pulp production solutions 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, technology rebuilds and fuel conversion projects. Valmet is a leading global supplier of biomass-based heat and power generation solutions. Valmet also supplies complete medium-scale heat and power plants that use biomass and sorted waste as fuel.

Valmet's emission control solutions are designed to secure safe operation with low emissions. In addition to pulp and energy applications, we have developed technology for various industrial processes and marine exhaust gas emissions.

### Proceeding with new technologies and utilizing the existing experience in new areas

Valmet has focused on commercializing new biomass conversion technologies such as lignin extraction technology for replacing fossil chemicals, pyrolysis for liquid biofuel solutions, and biomass pretreatment for producing bioethanol and biochemicals. Valmet also focuses on improving the performance of existing products.

Valmet has research and development (R&D) centers and pilot machines for both Valmet and its customers. The R&D centers include analytical laboratories that perform physical and chemical analyzes of raw materials, products and process liquors.

As an example of widening the product portfolio into new technologies, Valmet announced in November 2022 a contract with Circa to supply a pyrolyzer plant for the production of sustainable biochemicals at Circa's ReSolute plant in France. The bio-based solvent called Cyrene™ produced at the plant is used to replace fossil petroleum-based solvents, used in a wide variety of industries.

In addition, Valmet received an order for a LignoBoost XS™ plant from Mercer Rosenthal Lignin Center in Germany. The extracted lignin will be used to develop various bio-based materials, which can replace fossil raw materials.

Valmet is playing a strong role in the textile industry revolution and sees novel cellulose-based textiles and fiber-to-fiber textile recycling as the solution for more sustainable and circular textile production. Renewcell's new textile recycling plant in Sundsvall, Sweden, where Valmet delivered the key technology for refining, washing, bleaching and drying, was started up. It is the first commercial-scale fiber-to-fiber textile recycling plant of its kind in the world.

### Important milestones in delivery projects and new orders

During the year, Valmet reached major milestones in several projects. In Brazil, construction works and installation activities were started at the BioCMPC project. Installations proceeded

in the Metsä Fibre Kemi bioproduct mill project in Finland. In China, Valmet is delivering an evaporation line, several cooking and fiberlines, BCTMP lines, recovery boilers and NO<sub>x</sub> scrubbers for Nine Dragons – the first of which was started up in 2022.

Valmet received several orders for single pulp mill technology deliveries and modernizations, as well as boiler rebuilds in 2022. For instance, Valmet was selected as a supplier of a fiberline modernization for CENIBRA's pulp mill in Brazil. The upgrade enables the environmental impact to be significantly reduced, while increasing the performance of the production process.

It was also announced that Valmet would deliver key energy and biomass conversion technology for ORLEN Poludnie's S.A. second-generation bioethanol plant in Poland. This is a good example of Valmet utilizing its experience in biomass processing to develop solutions that can be used for other applications outside its traditional fields.

In February, Valmet announced its first circulating fluidized bed (CFB) boiler delivery to the growing Southeast Asian waste-to-energy market, with a supply for the Thang Long Energy Environment Joint Stock Company in Vietnam. Valmet was also selected as the tenderer for completing the biomass boiler, flue gas cleaning and flue gas condensing system works for the Vilnius Combined Heat and Power Plant in Lithuania.

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



### ➤ The future of the bioindustry

Bracell's new mill in Brazil runs without any fossil fuels and can produce up to three million tonnes of kraft pulp per year.



BUSINESS REVIEW

# Paper

The Paper business line delivers complete production lines, machine rebuilds and process components for board, tissue and paper production to ensure high process and environmental efficiency, flexibility, reliability and safety. In addition to several new orders, 2022 brought new innovations such as Valmet 3D fiber technology for molded fiber production and a THRU-AIR® Bonder for nonwovens web producers.

NET SALES  
EUR MILLION

1,347

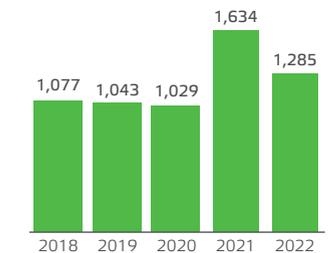
ORDERS RECEIVED  
EUR MILLION

1,285

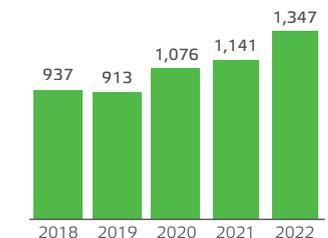
NUMBER OF  
EMPLOYEES

3,755

Orders received, EUR million<sup>1</sup>



Net sales, EUR million<sup>1</sup>



<sup>1</sup> 2018–2020 figures have not been restated to reflect the new segment reporting structure, which Valmet implemented as of January 1, 2022.

## PAPER

### Key innovations in 2022

- THRU-AIR® Bonder: a high-performing, cost-effective solution for producing premium quality nonwovens products
- Valmet 3D Fiber technology for molded fiber production

The Paper business line supplies board, tissue and paper machinery, equipment and machine rebuilds for the board, tissue and paper industries. The solutions are designed to be fit-for-purpose, focusing on energy and raw material savings, efficiency, flexibility and safety. As a result, our customers' end products can be manufactured with the highest quality and increased competitiveness on the market.

Demand for new board and paper machines has been especially lively in China, Europe and North America. Over the years, Valmet has cooperated with its customers in more than 700 board machine, 900 paper machine and more than 300 tissue machine deliveries globally.

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

Board, tissue and paper are used for a variety of purposes, including packaging, hygiene products like 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, including

reeling and winding, as well as automation, flow control and Industrial Internet solutions.

The lifetime of a paper machine can be several decades. Besides new machines, there is also a market for machine rebuilds and improvements. In addition, converting an existing paper machine to produce a different paper grade or relocating a paper machine is part of our offering.

#### Board and tissue machines awake interest

The demand for board and tissue machines and machine rebuilds continues to grow due to increased e-commerce, plastics replacement, improved hygiene standards and urbanization.

In 2022, Valmet received major orders worldwide, such as a containerboard machine with an OCC line for Eren Paper in the United Kingdom and a fine paper machine for Asia Symbol in China. As for tissue machine deliveries, several significant orders were received, of which the sixth tissue making line for Papel San Francisco in Mexico and the delivery of two tissue machines to Liaoning Yusen Sanitary Products in China were announced.

In addition, Valmet received new opportunities in the nonwoven industry by presenting a new THRU-AIR® Bonder that offers the opportunity to make premium grade products at a competitive cost. In August, Valmet and Metsä Group celebrated the official inauguration of the joint 3D fiber product pilot plant in Äänekoski, Finland. The investment project was decided in the fall of 2020, and the operations at the pilot plant began in May 2022.

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



#### > Ultra-premium quality tissue products at lower energy costs

To improve their market position, Vinda in China has started up four hybrid machines.

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# Strategy



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# Strategy

Valmet develops and supplies competitive and reliable process technologies, services and automation to the pulp, paper and energy industries. Our automation business covers a wide base of global process industries. We are committed to moving our customers' performance forward with our unique offering and way to serve. In 2022, a major strategic step was completed when Neles was merged into Valmet.

Valmet's Way Forward is our strategic roadmap, a guide for achieving our vision of becoming the global champion in serving our customers and moving the industries forward. It identifies megatrends and lays out our mission and strategic goals, along with the initiatives we undertake to achieve them.

Valmet's mission is to help our customers convert renewable resources into sustainable results. This defines our core purpose and drives our solution development. With Valmet's solutions, our customers can create sustainable and environmentally responsible products from renewable and recyclable raw materials to contribute to a carbon neutral circular economy.

Megatrends impact Valmet's global business environment, generating new opportunities and exposing potential risks. We have identified three key megatrends in the areas of resource efficiency, digitalization and consumer behavior that influence our strategic choices.

In April 2022, a major strategic step was completed when Neles was merged into Valmet. Flow Control as a new business line

## VALMET'S WAY FORWARD

**MISSION**  
Converting renewable resources into sustainable results.

**STRATEGY**  
Valmet develops and supplies competitive and reliable process technologies, services and automation to the pulp, paper and energy industries.  
Our automation business covers a wide base of global process industries.  
We are committed to moving our customers' performance forward with our unique offering and way to serve.

**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

**CONTINUOUS IMPROVEMENT AND RENEWAL**  
**MUST-WINS**  
➤ Customer excellence  
➤ Leader in technology and innovation  
➤ Excellence in processes  
➤ Winning team  
**BUSINESS ACCELERATORS**

**MEGATRENDS**  
➤ Resource-efficient and clean world  
➤ Digitalization and new technologies  
➤ Urban, responsible and global consumer

**VISION**  
To become the global champion in serving our customers and in moving the industries forward.

plays an important role in our strategy by creating further growth possibilities across various process industries.

The pulp, paper and energy industries form a common customer base for all Valmet's businesses, and we are committed to improving our customers' performance by leveraging our unique offering, combining process technologies, automation and services. Valmet also serves a wide base of other global process industries with its globally leading automation and flow control solutions.

Our Services and Automation segments form a significant part of Valmet, and they are characterized by predictable and growing demand and long-term customer relationships with recurring business driven by the installed base and customer operating rates. These businesses provide resilience to business cycles and make Valmet's net sales growth more stable. On the other hand, our Process Technologies segment is driven by customers' investments in board, tissue and paper machines, pulp mills, and heat and power boilers. This segment is more cyclical and

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volatile than the more stable Services and Automation segments. Consequently, the development of this segment should be observed with a longer-term time horizon.

**Strategy implementation**

We implement our strategy through defined Must-Wins. These provide structure and focus for our strategic initiatives, decisions and performance indicators. Our Sustainability agenda is an integral part of our Must-Wins. Valmet's Climate Program – Forward to a carbon neutral future – is part of our Sustainability agenda and sets ambitious CO<sub>2</sub> emissions reduction targets and establishes concrete actions for the whole value chain. The Climate Program implementation is fully integrated into our strategic initiatives.

In 2022, we reviewed our accelerator programs. To keep driving accelerated development of selected businesses, we are continuing to implement our growth program, called "Business Accelerator," which was launched in 2020.

**Further developing customer excellence**

Our "Customer excellence" Must-Win focuses on providing the best customer service and delivering solutions that bring customers the most benefit. This is achieved by having strong, capable and committed teams close to customers that can identify and implement optimal solutions comprising process technology, automation and services. During the year, we further developed our "Valmet's way to serve" approach for our Services business and a "Valmet as the automation partner" approach for our Automation systems business to improve the customer experience.

Efficient internal operations play an important role for the customer experience. To achieve customer excellence, we systematically develop our sales capabilities and common processes to drive efficient growth and ensure a positive customer experience from the very first touchpoint. We continue to enhance our local sales and service presence to strengthen key account management, as well as to increase our efforts in

segments with high growth potential and segments where Valmet needs a stronger presence.

**Customer-driven solutions**

Valmet's "Leader in technology and innovation" Must-Win is central to our Climate Program and our customers' sustainability progress. The innovative products and services we develop aim to reduce our customers' operating and investment costs, improve performance, and enable carbon neutral operations.

We are continuously renewing our existing product portfolio and developing new solutions, often in close collaboration with customers, that improve our customers' sustainability and performance, creating new revenue streams, both for our customers and Valmet.

Being a leader in technology and innovation is also about optimizing cost structures to boost our competitiveness – and Valmet's profitability. We achieve this through modularization, standardization and design optimization. In turn, this gives us flexibility and new opportunities to improve our supply chain and onsite work.

**Efficient global processes**

Our "Excellence in processes" Must-Win focuses on increasing our efficiency and cost-competitiveness by improving our

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 to continuously improve gross profit. We are strengthening project management and execution by developing project and site management competences and utilizing common tools and processes.

To improve the quality of our products, processes and services, we proactively manage and continuously improve quality throughout our internal operations and global supply chain. This includes strengthening our safety culture, our collaboration with customers and partners, and our practices to minimize our environmental footprint and protect people from harm.

Throughout our supply chain, we target significant cost savings by further developing global category management and our supplier base. Through initiatives to improve supplier quality and delivery performance, we increase the efficiency of our supply chain. To keep our cost structure competitive, we collaborate closely with our suppliers to increase our supply flexibility by utilizing supplier innovations and onboarding suppliers close to key customers, and by optimizing our own operations and logistics, we aim to quickly respond to changes in demand.

**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 high-impact new technologies are driving efficiency and new business models.



**Urban, responsible and global consumers**

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

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# Every Valmet employee plays an essential role in turning strategy into reality.



The implementation of a centralized enterprise resource planning (ERP) system continued in 2022 across Austria, China, Czech Republic, Germany, South Africa, France and Sweden, with rollouts prepared in Valmet's other locations. With an ERP system, we are targeting benefits through the unification of key processes and ways of working across Valmet.

### Performance-driven teams close to customers

Our "Winning Team" Must-Win seeks to ensure that Valmet's capabilities are globally balanced, and that we build engaged and performance-driven teams close to our customers. Using the results of Valmet's OurVoice employee survey, we implement targeted actions and systematically strengthen employee engagement. In 2022, the COVID-19 pandemic continued to impact us, especially in China. Our teams continued to adapt to the changed work environment, while successfully delivering customer projects and staying connected with colleagues.

Every Valmet employee plays an essential role in turning strategy into reality. In 2022, we continued our global training programs, designed to further strengthen the execution of our strategy, as well as to drive continuous renewal and improvement within the organization.

We also continued to develop our renewed approach to strategic resource planning, which will serve as a foundation for future strategic competence and workforce development.

### Business Accelerator

In the spring of 2020, we introduced a new growth program called "Business Accelerator" for selected businesses. The focus of this program is on the one hand on finding new applications and customer segments for existing products and expanding our offering to existing segments, and on the other hand on developing new technologies and offerings for emerging new market segments. In 2022, the program was reviewed. Industrial Internet, Filtration, Emission Control, Biomass Concepts, Nonwovens, Recycled and Cellulose-based Textile Fibers and 3D/Molded Fiber continue as part of the program.

The new 3D/Molded fiber Business Accelerator is tackling global environmental challenges by creating sustainable solutions for the world's packaging needs. The novel molded fiber products are manufactured from wood fiber with the objective of replacing plastic. In 2022, Valmet and Metsä Group's innovation company Metsä Spring began the operations at the 3D fiber product pilot plant in Äänekoski, Finland. The greenfield pilot plant enables further research into and development of the new wood-based packaging solution and its production process.

Valmet has developed technology for both recycling textile waste and making textile fiber from biomass or organic waste. In 2022, Valmet continued to contribute to this important industry with technology deliveries to two major developments in this area. In cooperation with Renewcell, the start-up of the world's first commercial-scale textile recycling plant commenced in Sundsvall, Sweden, while the Spinnova-Suzano joint venture textile fiber factory is being built in Jyväskylä, Finland.

In our Industrial Internet offering, we combine our expertise in process technology, automation and services with data-driven solutions to boost the performance of our customers' mills and plants. We are also developing our digital channels and services to offer a great experience throughout the customer journey. In addition to being able to serve our customers more effectively, digitalization opens new opportunities to optimize our operations as we launch new digital platforms and tools to drive internal efficiency, quality and productivity.

The COVID-19 pandemic has helped us to accelerate the deployment of our remote services and Industrial Internet solutions with our customers, as well as expand our own digital toolkit to better support remote working opportunities. We continue to evolve our ways of working and add new competences to successfully carry out remotely supported start-ups and maintenance shutdowns with our strong local presence and competences close to customers.

# Progress of Must-Win actions

| MUST-WIN  | WHERE WE ARE TODAY   | FOCUS GOING FORWARD  | STRATEGIC GOALS  |
|---|--|--|--|
|  <p><b>Customer excellence</b></p>                 | <p>We are implementing our further developed services, automation and process technology concepts based on our unique offering and continuous customer collaboration over the lifecycle. We are managing sales based on global processes, common tools and a strong customer interface built on key account management and customer-specific mill teams.</p>   | <p>➤ We will continue to implement and develop our way of serving our customers with a strong local presence and a global offering. We will build our value proposal on leading technology, a combined offering and customer intimacy, continuously developing our sales interface and sales management practices.</p>   | <p>➤ <b>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.</b></p>  |
|  <p><b>Leader in technology and innovation</b></p> | <p>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 the cost-competitiveness and performance of our offering.</p>   | <p>➤ We will continue to strengthen our research and development cooperation with key customers, systematically developing and renewing our offering, and implement product competitiveness initiatives. We will focus strongly on developing the resource and energy efficiency of our offering.</p>  | <p>➤ <b>Valmet provides leading technology and cost-competitive products and services that reduce customers' operating and investment costs and enable their carbon neutral operations.</b></p>  |
|  <p><b>Excellence in processes</b></p>             | <p>We are using a harmonized global process to systematically develop our project management capabilities. We focus 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.</p> | <p>➤ We will continue to develop our processes and operations by focusing on:</p> <ul style="list-style-type: none"> <li>• Project management practices and key projects</li> <li>• Building a strong quality culture and way of operating to drive our quality performance</li> <li>• Strengthening existing HSE practices and collaboration with customers and suppliers to improve safety</li> <li>• Supplier quality and delivery performance, supplier innovations and sustainability in our supplier network</li> <li>• The rollout of an ERP and realizing its benefits</li> <li>• Certification of our global management system for quality and HSE management standards.</li> </ul> | <p>➤ <b>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.</b></p> |
|  <p><b>Winning team</b></p>                      | <p>We are strengthening our high-performance culture through performance management and developing engagement and managerial skills. We focus strongly on capability development through strategic resourcing process development, active internal job rotation and targeted local competence development.</p>   | <p>➤ We will promote active dialogue to boost engagement, a feedback culture to drive performance and our shared values, and pride in what we do to create energy in the organization. We will continue to develop our strategic capabilities and our functional and technical competences to support our strategic targets and business growth.</p>   | <p>➤ <b>Valmet has engaged and performance-driven teams living Valmet's shared values. Competences are globally balanced and close to customers.</b></p>   |
|  <p><b>Business accelerators</b></p>             | <p>The focus of this program is on finding new applications and customer segments for existing products, expanding our offering to existing segments and developing new technologies and offerings for emerging new market segments. Growth programs are active in the Industrial Internet, Filtration, Emission Control, Biomass Concepts, Nonwovens, Recycled and Cellulose-based Textile Fibers and 3D/Molded Fiber businesses.</p>   | <p>➤ We will focus on developing our Industrial Internet, Filtration, Emission Control, Biomass Concepts, Nonwovens, Recycled and Cellulose-based Textile Fibers and 3D/Molded Fiber businesses by:</p> <ul style="list-style-type: none"> <li>• Expanding our offering for existing customers</li> <li>• Finding new applications or customer segments for existing products</li> <li>• Developing new technology and offerings for emerging new market segments.</li> </ul>  | <p>➤ <b>Valmet strives to accelerate growth and profitability improvement through business-specific growth plans and implementation support for businesses with untapped potential.</b></p>  |

# Financial targets

GROWTH

2X

- Net sales for Services and Automation segments to grow over two times the market growth
- Net sales for Process Technology segment to exceed market growth

NET SALES 2022,  
EUR BILLION

5.1

PROFITABILITY

12–14%

- Comparable EBITA: 12–14%

PROFITABILITY 2022

10.5%

COMPARABLE ROCE

>15%

- Comparable return on capital employed (ROCE) before taxes<sup>1</sup>: at least 15%

COMPARABLE ROCE 2022

17%

DIVIDEND POLICY

≥50%

- Dividend payout at least 50% of net profit

DIVIDEND 2022

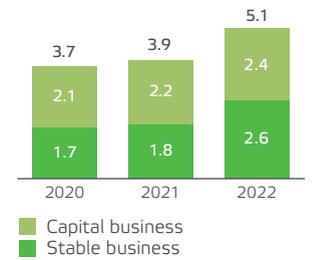
68%<sup>2</sup>

<sup>1</sup> Comparable ROCE before taxes = ((profit before taxes + interests and other financial expenses +/- items affecting comparability) / (balance sheet total - non-interest-bearing liabilities (average for the period))) x 100.

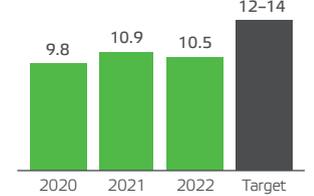
<sup>2</sup> Proposal by the Board of Directors.

<sup>3</sup> Year 2020 figures have not been restated to reflect the new segment reporting structure, which Valmet implemented as of January 1, 2022.

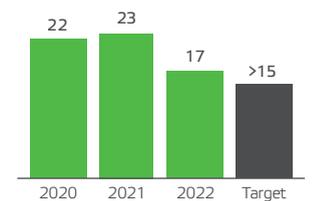
Net sales, EUR billion<sup>3</sup>



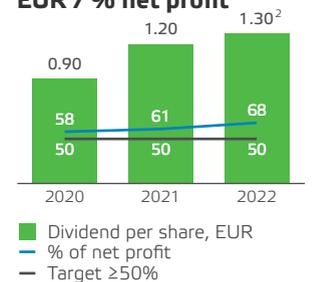
Comparable EBITA,  
% of net sales



Comparable ROCE, %



Dividend per share,  
EUR / % net profit



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# Neles merger completed

The combination of Valmet's and Neles' business operations was completed on April 1, 2022.

The Boards of Directors of Valmet and Neles Corporation signed a combination agreement and merger plan to combine the two companies through a merger on July 2, 2021. The Extraordinary General Meetings of Valmet and Neles resolved to approve the merger of Neles into Valmet on September 22, 2021. On March 21, 2022, Valmet announced that the companies had received all the competition approvals for the merger. The combination of Valmet's and Neles' business operations was completed on April 1, 2022, creating a company with a unique offering for the global process industries and 17,500 professionals around the world.

The merged company Neles became Valmet's fifth business line, called Flow Control. After the merger, Valmet's business lines are Services, Flow Control, Automation Systems, Paper, and Pulp and Energy. The Automation Systems business line was previously called Automation.

### A leading company

The merger had a strong strategic rationale. After the merger, Valmet is a leading company with a unique, competitive and balanced total offering for process industries globally. It has strong positions in its respective segments, including flow control, automation systems and services as well as board, paper, pulp and energy technologies. Valmet is also well-positioned to benefit from the strong sustainability focus in the combined company's end markets, such as energy transition and increasing demand for renewables.

Services, automation systems and flow control are characterized by predictable and growing demand, long-term customer relationships with recurring business driven by the installed

base and customer operating rates. This creates opportunities to exceed market growth, increase profitability and maintain a strong financial profile with end-market diversification across the process and energy industries.

### Further growth opportunities in automation

With the Flow Control business line as part of Valmet, the company has a solid platform for further growth in the automation sphere, consisting of automation systems, automation products and flow control solutions. Valmet has a leading position in process-critical valves and valve automation products, pulp and paper automation systems, analyzers, and measurements. We also continuously develop technology for new applications, including green hydrogen. Valmet also has growth potential in these sectors and through the increased penetration into energy and process industry end markets.

Valmet has an excellent track record and a strong capability in integrating and developing acquired businesses. This is well-evidenced in Valmet's successful growth of its Automation business and multiple acquisitions over the past few years.

### Integration proceeding as planned

The integration of Flow Control into Valmet is proceeding according to plan. Active sales and marketing of Valmet's combined offering commenced soon after the merger was completed, and the implementation of several cost synergy actions regarding function costs, common locations and the supply chain continued during the rest of the year.

Valmet expects to generate annual run rate synergies of approximately EUR 25 million, of which approximately 60 percent are expected to be achieved by the end of 2023, and approximately 90 percent by the end of 2024.



## The merger created a leading company with unique offering

- Unique, competitive and balanced total offering for process industries
- Large recurring and stable business, providing resilience to business cycles
- Strong industrial logic from the combination of flow control and automation systems
- Solid platform for further growth in flow control and automation systems
- Revenue, technology development and cost synergy potential, contributing to shareholder value creation

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# Research and development

Innovation, cooperation and technology leadership for a carbon neutral future.

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

Our research and development work is carried out mainly in Finland and Sweden by the R&D organizations in our business lines. Valmet R&D operates 28 R&D centers that are pilot facilities for customer projects and internal testing. At the end of 2022, with the addition of our new Flow Control business line, Valmet R&D employed more than 470 people, while R&D spend for the year, including three quarters of the Flow Control business line, totaled EUR 95 million.

### Going beyond circularity

We continuously develop new solutions to improve customers' sustainability and performance. Our products are often created in close cooperation with customers or our network of leading universities and research institutes around the world.

In 2022, Valmet took a further step in promoting the development of sustainable technology by launching the Beyond Circularity program. Through our own investments, combined with funding from Business Finland, the program improves Valmet's ability to support the green transition in our customers' industries

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## Research and development highlights in 2022

- Beyond Circularity program launched
- Demo plant with Metsä Group inaugurated
- Main machinery and equipment for Circa's production of bio-based renewable solvents

and helps accelerate the implementation of Valmet's Climate Program.

The multi-year program builds on collaboration to reach a mission that is beyond a single player. Valmet aims to build a new green transition ecosystem to create value and growth for its participants, encouraging the best national and international partners in the field to join. In addition to expanding our competences to new areas, the program will help create new jobs as we contribute to impactful solutions for a sustainable future.

### New innovations in fiber products

In 2022, Valmet and Metsä Group's innovation company Metsä Spring inaugurated a demo plant, which will manufacture Muoto®. It is a new 3D fiber product made from renewable and sustainably grown wood pulp. Through research and development, Valmet continuously develops new innovations to speed up the green transition. In the new 3D fiber product, Muoto®, we have combined our expertise seamlessly with Metsä Spring. Muoto® is an excellent, sustainable alternative to plastics for many everyday applications, including food packaging.

Renewable new alternatives for fabric fibers are also gaining traction. Interest in the Woodspin and Renewcell initiatives for sustainable textile fiber production announced last year remains high. Valmet is an important technology provider for both these

initiatives, and our joint work continues to bring these innovative products to market.

### Sustainable biochemicals

In 2022, Valmet joined forces with Circa Group, a converter of waste and non-food biomass into advanced bio-based chemicals, to industrialize the production of sustainable biochemicals. As part of the agreement, Valmet will deliver the main machinery and equipment and will actively contribute to the development of Circa's bio-based renewable solvent production processes.

The production process will use Valmet equipment for biomass handling, a pyrolysis system and a Valmet CFB Boiler for energy production, as well as Valmet's DNA automation system. Our experience with fluidized bed boilers and biomass-to-energy solutions will significantly contribute to realizing and optimizing the biochemical production process at scale.

The bio-based solvents replace harmful petroleum-based solvents used in a wide variety of industries. By providing experience and expertise to companies like Circa, Valmet furthers its goal of converting renewable resources into sustainable results.

### Autonomous operations framework defined

In our Industrial Internet offering, we combine our expertise in process technology, automation and services with data-driven solutions to boost the performance of our customers' mills and plants.

In 2022, we defined our autonomous operations framework, which describes the value-adding steps needed as our customers are moving toward higher levels of autonomy in their operations. Our latest offering developments in this area are the Mill-Wide Optimization application and a new analytics platform, which brings easy-to-use self-service analytics tools to our customers and us to capture value from data.

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# Supply chain

Sustainable supply through collaboration and creative thinking.

Valmet's supply chain directly contributes to the company's profitability, competitiveness, sustainability and overall delivery efficiency. The aim is to have a world-class supply chain operation that delivers sustainable and competitive results through close collaboration with suppliers.

Valmet has over 30,000 active suppliers in around 60 countries, and spends over EUR 3 billion in direct and indirect purchases annually. Valmet's procurement, logistics and warehouse workforce totals 1,200 employees globally, located in five continents in more than 25 countries.

### Reorganizing for higher efficiency

In 2022, the Procurement function was renamed Supply Chain and given responsibility for leading and developing both procurement and logistics. While Supply Chain teams remain distributed throughout our business lines and areas, some consolidation was carried out to optimize and centralize global tasks such as indirect sourcing and category management.

The reorganization has led to the creation of a team which will focus on leveraging Valmet's purchasing power across business lines. The aim is to create supply contracts that serve multiple business lines with the best price and quality, consolidating contracts for better procurement performance.

Valmet's new Flow Control business line was also successfully integrated into the new Supply Chain organization. The integrated team and common development plans allowed Valmet to identify savings opportunities in annual procurement spend.

## Supply chain highlights in 2022

- New Supply Chain organization established, covering procurement and logistics
- High procurement savings despite challenging cost and supply chain environment
- New engagement program to improve supplier sustainability

### Excellent performance in extraordinary times

Most of 2022 was marked by uncertainty and extreme inflation. Driving the inflation were a faster-than-expected recovery after the worst of the COVID-19 pandemic was over and the outbreak of war in Ukraine, which reduced the availability of many raw materials worldwide, particularly in Europe.

Compounding the problems was the continued unreliability of supply chains. Late vessels and congested ports slowed deliveries all over the world.

Despite many countries seeing inflation of 10 percent or more for the year, many of our procurement performance indicators developed favorably during 2022. Procurement savings in 2022 were on a par with 2021, which was a better outcome than expected given cost inflation.

### Ongoing mitigation efforts for better resilience

The mitigation efforts Valmet started in 2021 continued in 2022 with increased urgency. We are sourcing more from established suppliers in cost-competitive countries, as well as introducing new sourcing locations. Our aim is to further expand our sourcing network to increase our overall ability to react to and accommodate changes in supply and demand.

Nearly 1,000 new suppliers were onboarded over the course of 2022. This represents improvements in both cost-competitive and local sourcing. Whenever possible, Valmet uses local sourcing, buying close to customers, to reduce delivery times and simplify logistics.

### Sustainability at the forefront

Ensuring a sustainable supply chain remains a top priority for Valmet. During 2022, we completed 42 supplier sustainability audits. We also rolled out a new reporting tool that gives us a direct insight into the coverage of Valmet's Sustainable Supply Chain Policy over our total procurement spend. Coverage is currently over 80 percent, with targets set for 2023 and beyond.

In 2022, as part of the Valmet Climate Program, we started onboarding suppliers to help them improve their sustainability and reduce CO<sub>2</sub> emissions. The new engagement program includes a sustainability e-learning course for suppliers, which is available in three languages.

All Supply Chain teams worked actively in 2022 to prepare to ramp up activities according to our Climate Program in 2023. We aim to grow the engagement scope over the next years from dozens to hundreds of suppliers to reduce CO<sub>2</sub> emissions by 20 percent in our supply chain by 2030.

› **READ MORE:**  
[Climate](#)  
[Sustainable Supply Chain](#)

## PURCHASES (10 LARGEST COUNTRIES)

| EUR MILLION | 2022  |
|-------------|-------|
| Finland     | 1,225 |
| China       | 438   |
| Sweden      | 331   |
| USA         | 306   |
| Germany     | 155   |
| Brazil      | 105   |
| India       | 82    |
| Poland      | 75    |
| Canada      | 74    |
| Italy       | 54    |

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# Quality

Quality is a cornerstone of the Valmet culture and is fundamental to the success of our customers and our business.

Valmet supplies customers with sustainable solutions based on high-quality technology, processes and services. Our quality function aims to strengthen customer satisfaction and loyalty through continuous improvement across the value chain.

### Focus on processes

The quality governance model implemented in recent years has delivered the expected results, and quality progressed as planned during 2022. As part of the continuous improvement driven by our Global Management System (GMS), a key focus area was process development.

The Valmet quality function has worked extensively this year on creating standardized, structured process documentation. The process documentation work included the unifying of certain area-specific practices into global processes and broadening the scope of fundamental global processes.

Key quality processes, for global as well as business line and area operations, are now documented with established workflows for follow-up and improvement. For example, Valmet now has 18 global processes covering core quality practices, such as root cause analysis and supplier incident management.

### Improving quality metrics

A key performance indicator is Cost of Poor Quality (COPQ), measured as a percentage of net sales. This indicator not only helps us determine the impact of quality on our business but makes quality more concrete and helps prioritize corrective actions.

## Quality highlights in 2022

- Global quality processes mapped and documented
- Advanced quality mindset in continuous improvement and problem solving
- Global quality tools implementation to support quality performance

While COPQ is very important, Valmet monitors many other quality metrics such as the Continuous Improvement incident completion rate. To make these metrics more transparent and easier to use, Valmet started redefining several indicators in 2022. In addition, we kicked off a development project to build a quality dashboard.

The quality dashboard will give Valmet a clear overview of all key performance indicators. It will also provide a centralized system for finding quality-related metrics quickly. This definition work and dashboard development will continue into the next year.

### Enhancing Valmet's culture of quality

Valmet's culture of quality is reinforced by timely and impactful communication. Our work to raise awareness and instill a sense of personal ownership of quality into every Valmet employee began some years ago and continued in 2022, with much of the quality communications responsibilities now driven by the business lines and areas.

Along with the transfer of responsibilities, quality communications were ramped up across the organization. Bulletins, weekly quality letters, videos, success stories and more are produced by teams around the world to boost our quality culture. Special activities were organized around key events such as the introduction of new processes.

In addition to communications, we started to renew our quality training in 2022. After a thorough review of the needs across the organization, Valmet developed an entirely new quality training portfolio. This was done in parallel with creating formal definitions of quality competences and skills.

### Flow Control integration proceeds ahead of schedule

Valmet's quality organization prepared well for the Neles merger and the integration of the new Flow Control business line. Quality integration plans were ready as soon as the merger was finalized, allowing prompt action.

The Flow Control business line successfully followed and even exceeded the integration targets for 2022. Valmet's quality governance model was fully adopted, as well as the use of Valmet's continuous improvement tool, Spotlight.

Flow Control employees benefited from the 2022 launch of our new quality training portfolio and successfully completed the courses. Key quality metrics, including COPQ, were also positive for the year. For 2023, integration plans include rolling out Valmet processes and moving the Flow Control quality and HSE ISO certifications into the Valmet global multisite certificate.

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Sustainability360° agenda

Progress on Sustainability360° agenda

Environmental

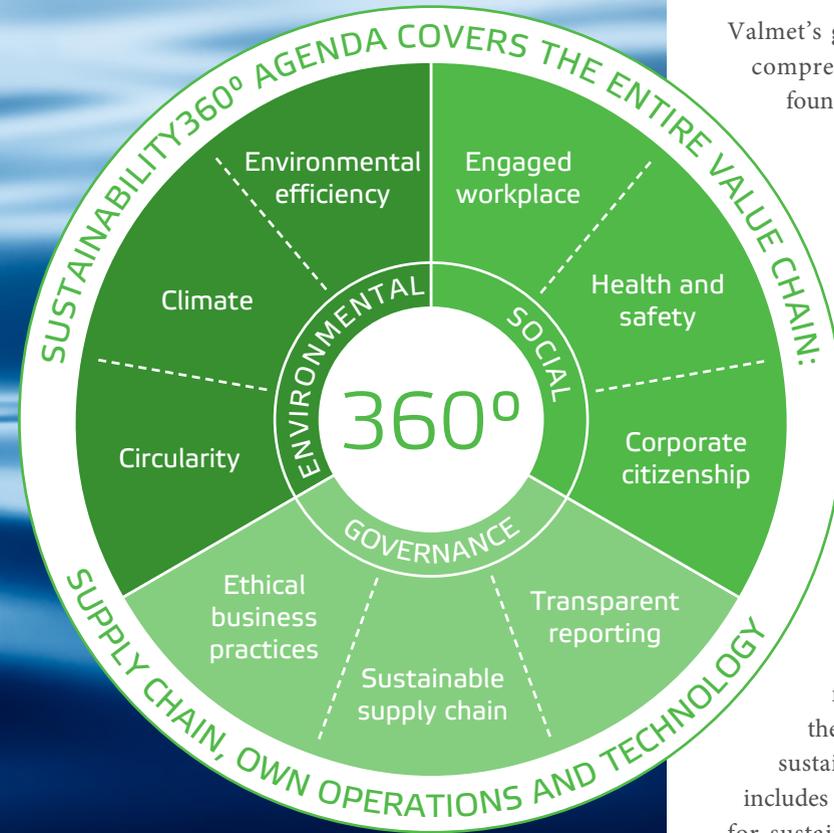
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# Sustainability





# Sustainability360° agenda

Sustainability is fully integrated into Valmet’s strategy and operations through the comprehensive Sustainability360° agenda. In 2022, we renewed the agenda to highlight the impact of Valmet’s sustainability work in the entire value chain.

Valmet’s guiding principles, transparent reporting and the comprehensive Sustainability360° agenda create a solid foundation for sustainable business operations.

we defined nine ESG focus areas for the Sustainability360° agenda and updated the main material sustainability topics for our value chain.

Sustainability is an integral part of our strategy and related Must-Wins that provide structure and focus for our strategic initiatives, decisions and performance indicators. Our Sustainability360° agenda has nine focus areas with systematic target setting, annual action plans and monitoring of progress. The agenda is aligned with the Paris Climate Agreement’s 1.5-degree pathway and Science-Based Targets initiative (SBTi) and the United Nations Sustainable Development Goals.

Valmet’s Sustainability360° agenda’s main material topics under the Environmental focus area are Circularity, Climate and Environmental efficiency. The main material topics under the Social focus area are Engaged workplace, Health and safety and Corporate citizenship. The main material topics under the Governance focus area are Ethical business practices, Sustainable supply chain and Transparent reporting.

All the main material topics have concrete targets and action plans integrated into the company’s annual planning process as part of strategy implementation.

## A systematic, company-wide renewal effort

In 2022, as part of continuous development, Valmet renewed its Sustainability360° agenda, which has been the backbone for building the company’s acknowledged sustainability work over the years. The renewed agenda includes environmental, social and governance (ESG) aspects for sustainability and covers Valmet’s entire value chain, including the supply chain, Valmet’s own operations, and the use phase of Valmet’s technologies.

The agenda renewal process included an extensive analysis of the business environment, benchmarks and peer reviews, industry and corporate sustainability trends, future regulatory requirements, and stakeholder expectations. Based on the results,

## Sustainability360° agenda highlights in 2022

- Renewed agenda that includes environmental, social and governance (ESG) aspects for sustainability
- Nine ESG focus areas defined for the Sustainability360° agenda and the main material sustainability topics updated for our value chain

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# Most impactful UN Sustainable Development Goals for Valmet

Valmet supports the United Nations (UN) Sustainable Development Goals (SDGs). We have identified the SDGs on which Valmet can have the most positive impact, or where we aim to minimize our negative impact. Our Sustainability360° agenda and related targets have been aligned with selected SDGs.



**Goal 6: Clean water and sanitation**

Efficient water management plays a key role in Valmet's technologies, e.g. evaporation and condensate treatment solutions, ultrafiltration solutions and tissue, and board and paper machines can help customers to recycle process water and reduce freshwater use and water pollution.

Improving water efficiency and decreasing water consumption are also part of Valmet's environmental targets for its own operations by 2030.

**Goal 7: Affordable and clean energy**

Valmet's energy solutions are based on biomass, waste or a mixture of different fuels.

Valmet impacts this goal through energy technologies, e.g. by enabling heat and power production in biomass, waste and multifuel boilers, increasing the use of different fuel mixes, and air emission control systems for pulp mill and power plant flue gases.

Valmet is also contributing to this goal by replacing fossil fuels with renewables, purchasing CO<sub>2</sub>-free electricity, and improving energy efficiency in its own operations.

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

Valmet's goal is zero harm to people and the environment. Valmet aims for a positive, safe, and fair working environment, full and productive employment, and decent work for all. We have a human rights management process for our own operations and the supply chain, e.g. to ensure human rights and protect labor rights.

Valmet contributes to global economic productivity through investments in R&D, manufacturing high value-adding and resource-efficient technology, and fostering innovation.

**Goal 12: Responsible consumption and production**

Valmet develops process technologies, automation, and services to enable replacement of fossil materials with renewables and to support customers in producing high-value end products.

We also aim to improve resource efficiency throughout the value chain to ensure responsible consumption and production processes. Valmet's technologies are designed for maximum resource and raw material efficiency, enabling the circular economy. Lightweight technologies that reduce fiber in board production, hybrid technologies that save fiber in tissue production, high-yield chemical pulp cooking, and fiberlines and power boilers that use residues impact this goal by significantly increasing the efficient use of resources.

Valmet has a waste management target for its own operations by 2030. Valmet's sustainable supply chain management also contributes to this goal.

**Goal 13: Climate action**

Valmet has validated science-based CO<sub>2</sub> emissions reduction targets and concrete actions for the whole value chain.

Valmet contributes to this goal by offering bioenergy self-sufficient chemical pulp mills and enabling carbon neutral biomass-based heat and power production. By 2030, our target is to enable 100 percent carbon neutral production for customers. In addition, our target is to reduce CO<sub>2</sub> emissions by 80 percent in our own operations and 20 percent in our supply chain by 2030.

Valmet has also analyzed the potential long-term climate-related physical and transitional risks and their financial impact on its operations and business environment with different climate scenarios to support strategy and the capability of adapting to and mitigating climate change.



# Progress on Sustainability360° agenda

| MATERIAL TOPIC                                    | TARGET  | KEY PERFORMANCE INDICATOR  | 2022 (2021)  | PROGRESS DESCRIPTION   | RELEVANT SDGS |
|---|---|--|--|--|---------------|
| <b>Environment</b>                                |   |  |  |  |               |
| Circularity, Climate and Environmental efficiency | 20 percent reduction of CO <sub>2</sub> emissions from supply chain by 2030 <sup>1</sup>  | CO <sub>2</sub> emissions from purchased goods and services (Scope 3 category 1), 1,000 tCO <sub>2</sub> e       | 2,237 (1,656)  | In 2022, Valmet's supply chain emissions increased due to organic company growth and the Neles merger.   | <br><br><br>  |
|   | 80 percent reduction of CO <sub>2</sub> emissions from own operations by 2030 <sup>1</sup>  | % reduction in Scope 1 and Scope 2 (market-based) CO <sub>2</sub> emissions, 1,000 tCO <sub>2</sub> e            | -16 (-3)   | In 2022, Valmet continued to increase purchases of low-carbon electricity and energy efficiency actions and to promote low-carbon commuting and business travel.   |               |
|   | 75 percent waste from own operations diverted from disposal by 2030 <sup>1</sup>  | % waste diverted from disposal   | 65 (64)  | Waste reduction actions continued in locations, with the focus in 2022 on implementing targets and plans in recently acquired and merged operations.   |               |
|   | 20 percent reduction in water consumption from own operations by 2030 <sup>1</sup>  | % water consumption change   | +11 (+3)   | Water consumption reduction actions continued in locations, with the focus in 2022 on implementing targets and plans in recently acquired and merged operations.   |               |
|   | Enable 100 percent carbon neutral production for our customers and -20 percent further reduced energy use of Valmet's current technologies by 2030 <sup>1</sup> | Orders received (OR) from new products and technologies, MEUR  | 1,113 (1,054)  | Valmet's new products and services reduce CO <sub>2</sub> emissions, water and raw material consumption and waste, while increasing energy efficiency. Valmet targets to have >25 percent of OR coming from new products and services. In 2022, the share was 21 percent.                                  |               |
| <b>Social</b>                                     |   |  |  |  |               |
| Engaged workplace                                 | Increase employee engagement by 1 percentage point by 2023  | OurVoice 2023 Valmet engagement index, % engaged   | - (+1)   | The OurVoice action plan completion reached 88 percent. The next OurVoice engagement survey will be conducted in 2023.   | <br>          |
|   | Increase the share of women in science, technology, engineering and mathematics (STEM) positions to 12 percent by 2023  | % of women in STEM positions   | 12.0 (11.5)  | We made good progress to reach our target in 2022. During the year we arranged local events e.g. in Sweden and India where we've introduced girls to engineering to promote STEM subjects to girls as a field of study.  |               |
| Health and Safety                                 | Elimination of high-consequence injuries by 2030  | Number of injuries leading to permanent disability or more than 6 months absence from work                       | Employees 5 (1)<br>External workers 2 (2)                                    | In 2022, two injury prevention programs were launched on hand safety and working at heights. Our minimum safety standards on 12 high-risk activities were also updated during the year.  | <br><br>      |
|   | Four HSE walks, inspections and conversations per manager per year in 2025  | Number per manager per year  | 4.7 (1.6)  | In 2022, we set personal targets and provided instruction and training to support managers in more visible safety leadership. The number of HSE walks and other activities that promote a strong safety culture increased significantly.   |               |
|   | Four HSE event reports per employee in 2025   | Number per employee each year  | 2.6 (2.1)  | Everyone is continuously encouraged to keep a strong safety mindset and remain aware of unsafe situations and report them. HSE event reporting increased during the year.  |               |
| Corporate Citizenship                             | Increase of local impact and visibility through social responsibility programs and ensuring local employee engagement and enhancing employer image              | Monetary value of sponsorships and donations, EUR k  | 415 (309)  | Valmet's sponsorships and donations and related Social Responsibility program focus on supporting non-profit organizations in the following key themes: "Towards the future with science," "Protecting the planet for next generations" and "Equal opportunities for wellbeing."                           |               |
| <b>Governance</b>                                 |   |  |  |  |               |
| Ethical business practices                        | 100 percent of white-collar employees completed Valmet's Code of Conduct e-learning course by 2025  | % of white-collar employees completed the Code of Conduct e-learning   | 87 (91)  | In 2022, Valmet's number of employees grew by more than 3,000 due to the Neles merger. Not all new Valmeteers completed the e-learning course by the end of the year, resulting a decrease in the completion rate. In 2023, we will conduct an internal campaign to promote and inform about the training. | <br>          |
|   | 80 percent of employees work according to certified quality, environment, health and safety management system by 2025   | % of employees working in locations certified to the ISO 9001:2015, ISO 14001:2015, and ISO 45001:2018 standards | ISO 9001:2015: 85 (86)<br>ISO 14001:2015: 78 (76)<br>ISO 45001:2018: 75 (72) | In 2022, 11 additional locations were added to Valmet's global multisite ISO certificate, bringing the total number of certified locations to 140.   |               |
| Sustainable supply chain                          | One social rights impact assessment per year until 100 percent personnel covered by 2025  | % of personnel covered by social impact assessment   | 67 (67)  | In 2022, we conducted one social impact assessment in India, which kept the personnel covered by social impact assessment in the same level as before the Neles merger.  | <br>          |
|   | Minimum 40 supplier sustainability audits conducted per year  | Number of supplier sustainability audits   | 45 (41)  | We reached the target with 45 conducted supplier sustainability audits with a third-party auditor to monitor suppliers' compliance with Valmet's Sustainable supply chain policy.  |               |
| Transparent reporting                             | 95 percent of suppliers by spend have signed Valmet's Sustainable Supply chain policy by 2025   | % of suppliers by spend signed Valmet's Sustainable Supply Chain policy  | 82   | In 2022, we rolled out a new reporting tool that gives us a direct insight into the coverage of Valmet's Sustainable Supply Chain Policy over our total procurement spend.   |               |
|   | Dow Jones Sustainability Index membership   | Inclusion in Dow Jones Sustainability Index  | Yes (Yes)  | In 2022, Valmet was included in the Dow Jones Sustainability World and Europe Indices (DJSI) for the ninth consecutive year.   |               |
|   | EU Taxonomy compliance  | % of Valmet's net sales, Capex and Opex taxonomy-aligned   | Net sales: 4<br>Capex: 2<br>Opex: 2  | Valmet reported EU Taxonomy alignment figures for the first time in its 2022 reporting.  |               |

<sup>1</sup> Baseline 2019.

# Environmental

We enhance circularity and environmental efficiency and reduce CO<sub>2</sub> emissions throughout the value chain. Valmet aims to enable fully carbon neutral production for its customers by 2030.

## Circularity

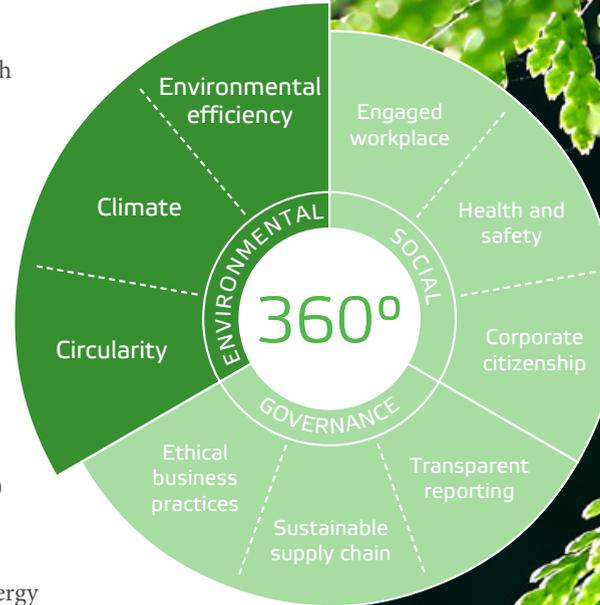
- We enable our customers to apply circularity through longer circulation, closed cycles, and the use of renewable and recycled raw materials.
- We constantly increase the resource efficiency of our own processes and maximize the use of recycled materials in our technology.

## Climate

- Our climate program includes ambitious CO<sub>2</sub> emissions reduction targets and concrete actions for the whole value chain for 2030.
- We aim to reduce CO<sub>2</sub> emissions in our supply chain by 20 percent and in our own operations by 80 percent.
- We also target enabling 100 percent carbon neutral production for our customers and improving the energy efficiency of our current offering by 20 percent.

## Environmental efficiency

- We continuously enhance environmental efficiency in our own operations and with our suppliers.
- Our process technology, automation and services are designed to improve raw material, energy, water and chemical efficiency.



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## ENVIRONMENTAL

# Circularity

For Valmet, circularity is a way to build a sustainable future for us, our stakeholders and society. The fundamental idea of circularity is embedded in our mission: **Converting renewable resources into sustainable results.**

Circularity is an integral part of Valmet's solutions for pulp, paper and energy production. For several decades, Valmet has systematically developed circularity through its process technology, automation and services, in its own operations, and the supply chain.

We play a key role in enabling our customers to apply a circular economy to their operations. In 2022, we carried out several initiatives to reduce waste, improve recycling and close process cycles.

### Supporting and integrating suppliers

Valmet enables circularity in its supply chain, its own operations and during the use phase of its solutions. Applying circularity criteria starts from the product design and drawings, where weight reduction and the increase of alternative raw materials are utilized. Circularity has been embedded into our Sustainable Supply Chain policy requirements, which sets the basis for Valmet's Supplier Sustainability engagement program.

Through environmental management requirements, we support and urge our suppliers to reduce their environmental impacts and reuse and increase the share of recycled materials in their operations. We have also included circularity as a topic in the

e-learning course, which was developed specifically for suppliers and was launched in 2022.

### Circular economy in everyday operations

In our own operations, we are constantly improving our processes by increasing resource efficiency, with the aim of maximizing the use of renewable and recycled raw materials in our technology offering by closing cycles in production processes, cascading the use of production sidestreams and reducing waste.

An important part of the circularity work at Valmet is our take back, exchange and reconditioning programs. Our global network of workshop services recondition everyday rolls, feeders, shafts and screens, extending the lifecycle for our customers. We also have exchange programs, for example, where winder units are rebuilt and upgraded. In addition, about 1,300 tonnes of refiner segments and 3,000 winder slitters are taken back for recycling each year. We are exploring extending the take back offering to other products. All Valmet foundries have targets for the use of recycled metal. In 2022, the share of recycled steel and iron in Valmet's foundries was 68 percent. We are also exploring the increased use of recycled polymers in fabrics production.



### ➤ Developing new innovations to speed up the green transition

All wood raw material and production sidestreams are utilized at Metsä Group's Äänekoski mill in Finland.

During the year, we also continued the cascading of fabrics production sidestreams for reuse in other industries. For example, production scraps are now used as raw material in shoe production, bag making and furniture parts, as well as new felt raw materials. During the first ever Fabrics Climate Week, Valmeteers generated a further 100 ideas to further develop circularity in our operations.

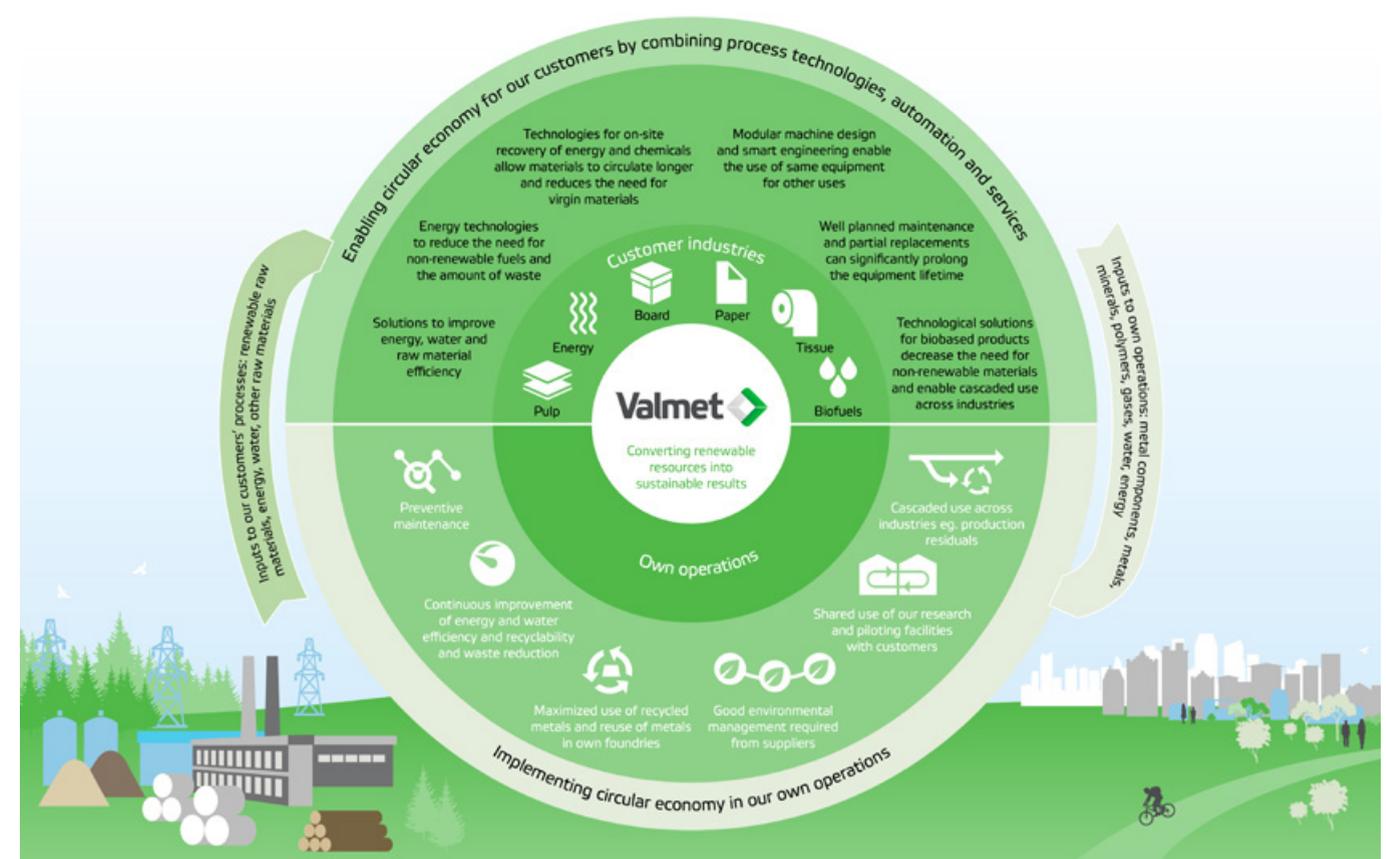
All our operations work to increase waste recycling and reuse. For example, 10,600 tonnes of foundry sand are reused by partners in road construction and land stabilization, and the wood waste of our Helsinki plant is reused to make chipboard for furniture. Our operations in Spain continued to develop their safety glove reuse program with the aim of reducing glove waste by 80 percent. We are also working to increase the use of renewable materials in the packaging of our products.

**Circular economy is fundamental to Valmet's mission**

With our solutions, customers can use and recover energy, water and chemicals more efficiently or minimize waste by using production sidestreams from other applications, processes or even industries. Our energy technologies enable the conversion of waste to energy, and our comprehensive services and automation help customers utilize these technologies for decades.

Valmet is also playing a strong role in the textile industry revolution and sees novel cellulose-based textiles and fiber-to-fiber textile recycling as the solution for more sustainable and circular textile production. Valmet delivered key technology for refining, washing, bleaching and drying to Renewcell's new textile recycling plant in Sundsvall, Sweden. It is the first commercial-scale fiber-to-fiber textile recycling plant of its kind in the world and was started up this year.

Furthermore, Valmet has focused on commercializing new biomass conversion technologies such as lignin extraction technology for replacing fossil chemicals and pyrolysis for liquid biofuel solutions. For instance, a LignoBoost XS™ plant will be delivered to Mercer Rosenthal Lignin Center in Germany, where



the extracted lignin will be used to develop various bio-based materials that can replace fossil raw materials.

The joint venture between Valmet and Metsä Group's innovation company Metsä Spring creates sustainable solutions for the world's packaging needs. The novel molded fiber products are manufactured from wood fiber from northern woods and are a great option for replacing plastic. Since the demand for molded fiber products is growing fast, this new technology offers Valmet a great opportunity to enter a new market with its molded fiber technology, Valmet 3D Fiber.

In 2022, Valmet launched Beyond Circularity, a new R&D and innovation program. Through this program, we will enhance our readiness to support the green transition in customer industries based on Valmet's technology vision 2030. The program will further strengthen our R&D work to develop process technologies, automation and services that utilize renewable materials, as well as recycled waste and sidestreams.

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[Supplier sustainability engagement program](#)

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## ENVIRONMENTAL

# Climate

Valmet believes that technology plays a key role in mitigating climate change and global warming and wants to enable the green transition to carbon neutral operations for its customers. During 2022, we progressed systematically in the implementation of our Climate Program, covering our supply chain, our own operations and the use phase of our technologies and services.

Climate change and global warming are significant challenges that are driving companies to rapidly transform and reduce their carbon dioxide (CO<sub>2</sub>) emissions. In 2021, Valmet launched an ambitious climate program – Forward to a Carbon Neutral Future – with concrete targets for the whole value chain to address these challenges.

Using 2019 as the baseline, the program aims to reduce CO<sub>2</sub> emissions by 80 percent in our own operations and by 20 percent in the supply chain by 2030. For the use phase of Valmet's technologies, we will be able to provide fully carbon neutral pulp and paper solutions to our customers by 2030 at the latest, while continuing to improve the efficiency of the current technologies. Valmet already provides customers today with pulp and energy solutions that enable fully carbon neutral energy production by using biomass.

In 2022, we continued to enhance supplier collaboration and engagement, transform our own operations and develop technologies enabling carbon neutral production for customers.

Valmet will achieve the program targets, approved by the Science Based Targets initiative, without emission compensation. The efforts are aligned with the Paris Climate Agreement 1.5-degree pathway and the United Nations Sustainable Development Goals.

### Good progress in the first full year of program

The climate program has been well received by Valmet's stakeholders and is progressing on schedule. During 2022 – the first full year of the program – detailed roadmaps were created, and the implementation continued. The program is an integral part of Valmet's Sustainability360° agenda, and is thus included in the company's strategy and related annual planning.

In 2022, Valmet launched a comprehensive e-learning course to give its employees insights into climate change and the circular economy. The e-learning course covers the impacts on our business environment and the actions we are taking with our suppliers and customers to decarbonize the operations.

### Enhanced supplier collaboration to reduce emissions

We have defined several actions in Valmet's supply chain to reach the emissions reduction targets set, such as increasing the share of recycled steel in Valmet's products. In 2022, we mapped the level of recycled steel and iron used at all our foundries globally. In 2022, the share of recycled steel and iron increased by six percent to 68 percent. Transportation emissions were also reduced by using more rail transportation than air and ocean freight, for example. In 2022, the number and weight of our air shipments decreased by 12 percent.

This year we also continued to identify the highest emitting suppliers among our supplier base and started to engage them

# In 2022, we continued to enhance supplier collaboration and engagement, transform our own operations and develop technologies enabling carbon neutral production for customers.

in a new CO<sub>2</sub> emissions reduction effort as part of our existing Supplier Sustainability engagement program. The engagement program also includes a climate change e-learning course, created specifically for suppliers, and global supplier sustainability innovation initiatives.

### Continued transformation of our own operations

Valmet is driving quickly toward a low-carbon future by replacing fossil fuels, purchasing CO<sub>2</sub>-free electricity and district heating, and investing in energy efficiency improvements. We are continuing to extend the use of digital tools and further develop remote ways of working that reduce business travel emissions.

In 2022, a change to carbon neutral fuels was started at selected Valmet locations. Multiple energy efficiency investment projects such as LED lighting upgrades, compressed air improvements and installation of heat recovery systems were also implemented. Energy audits to find future action areas were performed in workshops in Poland, India and Indonesia. To promote sustainable commuting, Valmet enables electric vehicle charging for employees, with new guidance for charging stations at our locations. The company also participates in various energy-saving initiatives such as the nationwide Down a degree campaign in Finland, targeting concrete energy-saving actions. We continue to support the installation of solar panels in our facilities – most recently, in Brazil.

We have already reached 20 percent CO<sub>2</sub>-free electricity consumption at Valmet locations in 2022, thanks to CO<sub>2</sub>-free electricity contracts and guarantee of origin certificates.

### Carbon neutral processes for customers

Most of the carbon footprint of our value chain comes from the use phase of our technologies. Most chemical pulp mills provided by Valmet today are already self-sufficient in energy. Furthermore, we enable carbon neutral heat and power production with our current biomass energy solutions, and are working on developing energy source options beyond biomass.

In 2022, we identified the remaining process technologies in our offering that still use fossil fuels and created plans to change them to electricity or renewables. We also promoted our climate offering in process technologies, automation and services to reduce CO<sub>2</sub> emissions and other environmental impacts.

› **READ MORE:**  
[Climate training](#)  
[Climate offering](#)



### › Full scope offering for CO<sub>2</sub> emissions reduction

“Technology will play a crucial role in the transition to carbon neutrality,” says Janne Pynnönen, Vice President of R&D.

# Valmet's Climate Program

## TARGETS BY 2030 FOR THE ENTIRE VALUE CHAIN

### SUPPLY CHAIN

**-20%**

CO<sub>2</sub> emission reduction<sup>1</sup>

#### MAIN ACTIONS

- Actions to reduce emissions in direct purchasing and logistics include
- increased share of recycled steel in products
  - supporting high CO<sub>2</sub> intensive suppliers in reducing emissions
  - redesigning lightweight steel products, introducing alternative raw materials and optimizing component manufacturing methods
  - centralizing spend to selected suppliers offering low carbon transportation
  - continuing to develop freight planning

### OWN OPERATIONS

**-80%**

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

#### MAIN ACTIONS

- Actions to reduce emissions include
- replacing fossil fuels with renewables in locations
  - purchasing CO<sub>2</sub>-free electricity and district heat
  - implementing energy efficiency improvements in locations
  - promoting low carbon commuting and reducing business flights

### USE PHASE OF VALMET'S TECHNOLOGIES

**-20%**

Further reduced energy use of Valmet's current technologies<sup>1</sup>

#### MAIN ACTIONS

Further enhancing energy efficiency of Valmet's existing pulp and paper technologies by 20% as part of Valmet's continuous R&D work

**100%**

Carbon neutral production

- Providing customers with Valmet's current energy solutions, which enable carbon neutral energy production by using biomass
- Developing new technologies to enable entirely carbon neutral pulp and paper production when the customer is using carbon neutral electricity

## KEY ACHIEVEMENTS IN 2022

### SUPPLY CHAIN

- The level of recycled steel and iron has been mapped at Valmet's foundries. The share of recycled steel and iron increased by 6 percent.
- Suppliers with very energy-intense operations have been identified and will be engaged in a program to reduce CO<sub>2</sub> emissions
- A new supplier innovation process and tool for collecting ideas including CO<sub>2</sub> emission reductions has been adopted globally
- The share of lower emission transportation such as rail over road transportation has continued to increase. The number and weight of our air shipments decreased by 12 percent.
- A specific climate change e-learning has been launched for suppliers to support their transition to low-carbon operations

### OWN OPERATIONS

- Changing fossil fuels to carbon neutral fuels has started in selected Valmet locations
- 20% of Valmet's annual electricity use now is CO<sub>2</sub>-free as the implementation of the CO<sub>2</sub>-free electricity purchasing plan has continued using guarantee of origin certificates
- Multiple environmental efficiency investment projects have been implemented in selected Valmet locations
- Valmet enables electric vehicle charging for employees in many Valmet locations

### USE PHASE OF VALMET'S TECHNOLOGIES

- Existing process technologies that still use fossil fuels have been identified, and plans for how to change them to electricity or renewables have been defined
- Target to increase energy efficiency is fully integrated in all R&D projects
- Valmet's offering for process technologies, automation and services to reduce CO<sub>2</sub> emissions and other environmental impacts has been launched

<sup>1</sup> Baseline 2019.

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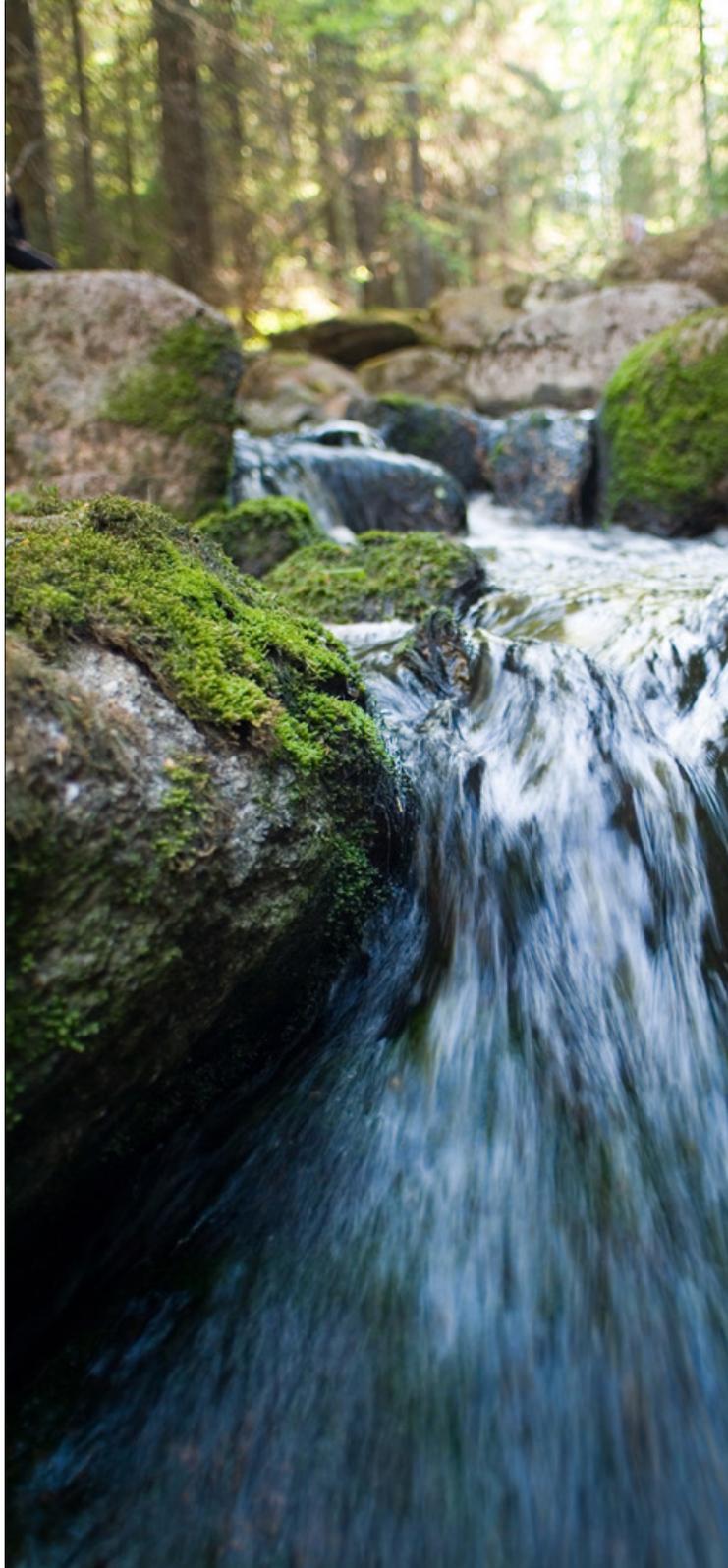
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## ENVIRONMENTAL

# Environmental efficiency

We actively enhance environmental efficiency in our value chain: We do more with less. To minimize environmental impacts in our supply chain, we have a global supplier sustainability management process and engagement program. For our own operations, the Environmental Program was updated in 2022 to accelerate efficiency gains. To improve efficiency during the use phase of our technology at customers' operations, Valmet has technology vision 2030, R&D processes and guidelines in place.

According to an estimate, a four percent environmental impact arises from our supply chain when we purchase manufactured goods and services from our suppliers and transport them to Valmet's sites, while less than one percent arises from our own operations. Most of the environmental impact, around 95 percent of Valmet's value chain impact, is created when our customers are using our process technologies during the product's lifetime.

Environmental efficiency is part of Valmet's sustainable supply chain management process. To learn more about our sustainability work with suppliers, please check out the Sustainable supply chain on page [63](#) and Climate on page [47](#).

### Environmental program speeding up progress in Valmet's own operations

To manage and improve environmental efficiency in our own operations, we have had an environmental program in place since 2009, with ambitious targets for reducing energy, water, and waste. In 2022, we updated the targets and baselines of the program to 2030. To support the cascading of the global program into local actions, we aim for 80 percent of our employees to be working in [locations certified](#) to the ISO 14001:2015 environmental management system by 2025. We are on track, and during 2022, we certified 10 more locations to the environmental standard, increasing the total number to 80 and the coverage to 78 (76) percent of employees.

We continually invest in environmental improvements in our facilities. This year, many actions were related to energy efficiency such as LED lighting upgrades, the installation of motion sensors, improving building insulation and new ventilation systems. Several of our Finnish units also participated in the national Down a degree energy-saving campaign, with actions such as fixing compressed air leaks and reducing room temperatures. We also included environmental efficiency requirements in our real estate guidelines for new facilities and renovations and created good practice guidance during the year.

### Environmental efficiency plays a key role in the innovation process

Customer needs and global megatrends such as pursuing a more resource-efficient and cleaner world drive our R&D work. Valmet's process technology, automation and services are designed to improve raw material, energy, water and chemical efficiency and reduce emissions.

In 2022, on global World Water Day, we highlighted [Valmet's work with tissue mills](#), where our technology and automation have reduced mill water consumption by 80 percent since 1990. Valmet innovations such as ultrafiltration technology and the ViscoNip press have helped our customers to dramatically reduce freshwater use and increase energy efficiency.

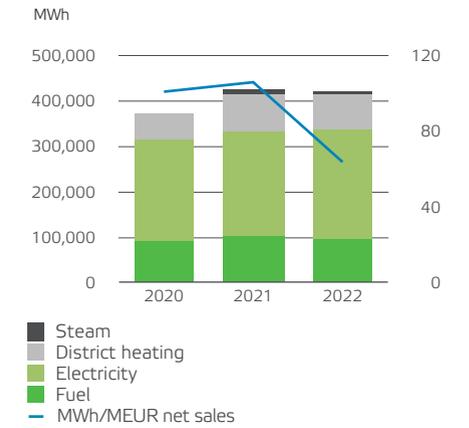
We are also proud to see our technology innovations delivering significant efficiency improvements for one of our customers, Papierfabrik Palm. With a startup in July 2021, Palm Aalen's PM 5, delivered by Valmet, is the world's largest corrugated base paper machine. In 2022, PM 5 has already achieved grammage reductions in its products equivalent to a raw material reduction of at least 15 percent.



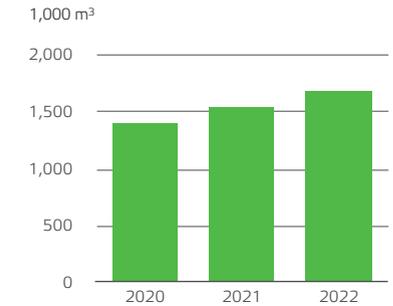
➤ **The most energy-efficient paper making line**

Valmet smart line simulation is designed with sustainability and cost-competitiveness in mind.

**Energy<sup>1</sup>**



**Water consumption<sup>1</sup>**



**Waste reused or recycled, %<sup>1</sup>**



**ENVIRONMENTAL PROGRAM<sup>1</sup>**

| OBJECTIVE  | KEY PERFORMANCE INDICATOR                                   | TARGET   | UNIT                 | BASELINE 2019 | TARGET 2025 | TARGET 2030 |
|--|---|--|----------------------|---------------|-------------|-------------|
| Climate Program  | Energy consumption <sup>1</sup>                             | Reduction in energy consumption from 2019 baseline       | MWh                  | 476,729       | -5%         | -10%        |
| Promote circular economy                                     | Water consumption   | Reduction in water consumption from 2019 baseline        | 1,000 m <sup>3</sup> | 1,511         | -10%        | -20%        |
| Promote circular economy                                     | Percentage of waste diverted from disposal                  | Increase waste diverted from disposal from 2019 baseline | %                    | 57%           | 65%         | 75%         |
| Certified environmental management system in main operations | Percentage of employees working under ISO 14001:2015 system | Expand ISO 14001:2015 system certification               | %                    | 74%           | 80%         | 90%         |

<sup>1</sup> See Valmet's Climate Program for CO<sub>2</sub> emission reduction targets and concrete actions across the value chain.

<sup>1</sup> Valmet merged with Neles on April 1, 2022. Data from the new Flow Control Business Line are included in the 2022 reporting from the merger date. 2021 water consumption restated. Read more about the energy, water and waste data from the [GRI Supplement](#) p. 27-32.

# Social

We promote an engaging work environment, commit to the health and safety of our people and partners, and strive to be a responsible corporate citizen.

## Engaged workplace

- We continuously look for ways to increase employee engagement and develop the best talent.
- We value diversity and promote an inclusive and well-managed work environment.

## Health and safety

- We invest in a positive safety culture and leadership.
- We constantly improve our HSE processes and practices toward our common goal of zero harm.
- We collaborate with our customers and partners to improve contractor and customer site safety.

## Corporate citizenship

- We participate in selected local programs under the following themes: Toward the future with science; Protecting the planet for the next generations; and Equal opportunities for wellbeing.
- We work in close cooperation with selected universities and research organizations globally.



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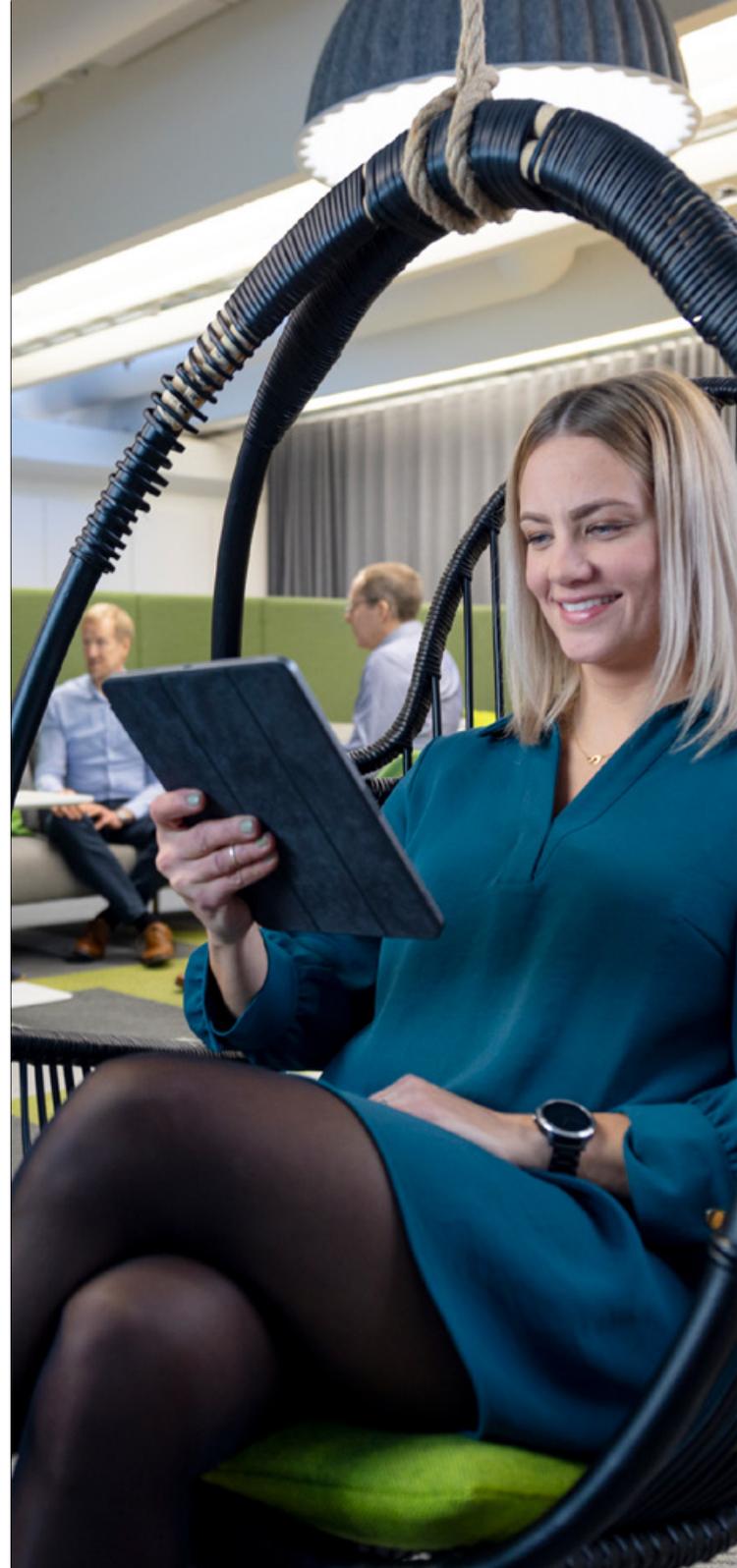
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## Engaged workplace

Valmet's professionals around the world take pride in working together to execute our strategy, live our shared values and move our customers' performance forward. In 2022, Valmet's winning team grew from over 14,000 professionals to 17,500 professionals through the merger of Neles into Valmet. The merger brought new capabilities, new experiences and new energy on which to learn and grow.



### Dialogue and engagement

Valmet recognizes the importance of active dialogue in the workplace and promotes practices which create dialogue in different forms. We have guidance and agendas to support and encourage regular one-to-one meetings and run structured and documented annual and mid-year review discussions. For team communications, we have guidance for running successful team meetings, as well as annual strategy team discussions, which include a different winning team discussion topic each year. In 2022, the topic was staying connected and making the most of our in-office time together.

We use the OurVoice engagement survey to systematically drive engagement. The survey cycle is two years to allow enough time between surveys to take meaningful action based on the feedback. In the year since the last survey, teams across the company have been working to execute the chosen actions. The most common themes addressed were removing barriers to work, supporting efforts to adapt to change and achieving a better work-life balance. Active team-level action implementation is complemented by various business line, area and company-level actions.

We encourage teams across the company to discuss the actions taken and share examples in the company intranet. This practice promotes the good work being done based on the survey and serves as a platform for best practice sharing. A new tool is being used to follow up OurVoice action implementation. At the end of 2022, 88 percent of the action plans were marked complete. The next survey is planned for mid-2023.

### Performance culture

Valmet's people processes continue to support a high-performance culture. At 98 and 95 percent completion, the annual and mid-year review discussions continue to be well

utilized for our white-collar employees, and the annual salary planning process continues to guide managers in allocating salary increases to high performers, especially prioritizing those individuals whose pay position is below the market median.

In 2022, we significantly expanded annual bonus plan eligibility to include an additional 8,400 participants – a change which made it possible for nearly all employees to be included in a bonus plan. We also successfully launched a new compensation and benefits training series for managers on base salary, job leveling, and bonus plans and performance rewards. About 75 percent of line managers completed the first part of the training series.

**Building capabilities and developing talent**

Through our capability development, we work to ensure resources are in the right place at the right time to serve customers in the most efficient way. Our global training programs are designed to build our strategic capabilities and accelerate strategy execution. In 2022, we ramped up our global training programs, running seven programs for nearly 450 participants, including two new program pilots on strategic leadership and the supply chain.

Feedback for the programs continued to be very good, averaging 4.7 out of 5.

We offer opportunities for our employees to develop throughout their careers. Valmet follows a 70-20-10 learning philosophy, with 70 percent occurring through on-the-job learning (e.g. new projects, internal mobility), 20 percent through learning relationships (e.g. mentoring, coaching), and 10 percent through formal learning. We use our annual review and talent review processes to guide development.

Example development opportunities include mentoring programs, 360° feedback, as well as new leadership boost trainings for hybrid work, high performance and self-leadership. In addition to global opportunities, business lines and areas run various competence development programs such as a process technology school in EMEA, leadership development in China and a service certification program in Automation Systems. We also restarted our Forward for Managers training in locations around the world.

13,854

MEN

3,693

WOMEN

78

NATIONALITIES

**DIVERSITY AND INCLUSION**

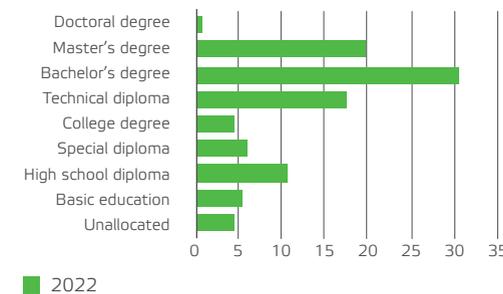
We continuously work to build and develop diverse teams of different backgrounds, genders and cultures. We value different perspectives and believe diversity creates a more dynamic and fun work environment and leads to new ideas and more competitive products.

In 2022, we put together a diversity and inclusion roadmap which focuses on putting policies and practices in place to create a more diverse and inclusive work community and on promoting strong local diversity initiatives within the company. Actions taken this year include publishing a new non-discrimination and anti-harassment policy, running unconscious bias training for HR professionals, and offering a diversity and inclusion e-learning course for line managers.

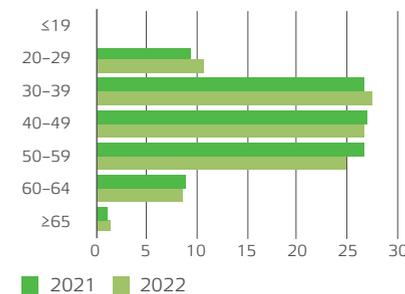
An example of our ongoing diversity initiatives is that we are closely following our gender balance, including the share of women in the workforce. We are committed to actively promoting STEM (science, technology, engineering and mathematics) as an attractive area of study and career for girls and women of all ages. An example of a type of initiative we want to continue to support is the Introduce a Girl to Engineering day in Sweden, in which we participated by welcoming 50 students to three of our locations for a day of exploration and learning. In November, we ran a similar program in India.

**PERSONNEL DATA**

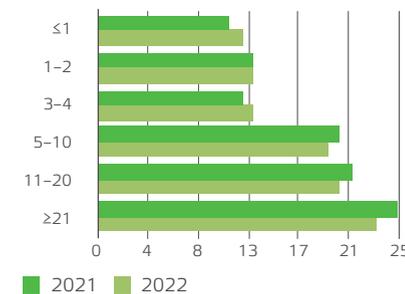
**Education structure, %**



**Age structure, %**



**Service years, %**



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**Attracting talent**

Effective resourcing and talent attraction activities continued to be important in 2022. Business growth, workforce aging, an active job market and high internal mobility challenged us to look for new ways to attract talent, widen our candidate pool and promote ourselves as an attractive employer. In 2022, we successfully hired more than 1,990 new employees and filled 39 percent of positions with internal candidates.

As part of our efforts to widen our recruitment pool, we have increased cooperation with universities and developed new trainee programs for students and recent graduates. In Brazil, we launched a new FirstStepForward trainee program and continued with our international graduate program for tissue professionals and our summer trainee program in Finland.

Plans are also underway for multiple new trainee programs in 2023, for example, for project management and industrial software development. We are also in the process of expanding our recruitment referral programs to new countries.

Strengthening our employer image continues to be a key priority for us. In 2022, Valmet received recognition as an attractive employer in several core markets, including Finland. We are also actively working to raise our profile in lesser-known markets to ensure we continue to get the best talent to join our winning team, now and in the future.



➤ **Sustainability e-learning grows knowledge**

In 2022, a new Climate e-learning course was launched, increasing employees' understanding of climate change and the circular economy.

>40

COUNTRIES

**WORK-LIFE INTEGRATION**

At Valmet, we support successful work-life integration throughout a person's career with us. Work-life integration is Valmet's view on creating balance between work and the rest of life, taking into consideration different life situations, generational needs and local preferences. We maintain a toolbox in our intranet with various training and best practice examples to support successful work-life integration, especially for staying connected, building resilience and adapting to change, managing workloads, professional growth, life goals and a healthy lifestyle.

Globally, Valmet has worked to support our employees in successfully returning to the office, adapting to hybrid work models and building resilience to better cope with change and uncertainty. We promoted work-life balance by adding it as a discussion topic in our annual review discussions between managers and employees, and by offering fresh learning content on balancing work and life, managing stress and adapting to change. The company also offered virtual resilience workshops to interested Valmeteers.

Work-life integration is an area where local influence is often the strongest and most impactful, thus creating a need for locally driven practices. For example, a Viva a Vida 'Enjoy Life' program covering psychological orientation, anxiety, stress and financial planning was offered in South America, an on-site yoga series was offered in India in conjunction with international yoga day and an extra holiday was added to the U.S. holiday calendar. Meanwhile, the team in Finland managed to utilize 87 percent of the ePassi wellness benefit.

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## Health and safety

We believe a safety-first mindset paired with a commitment to robust standards is critical to ensuring that everyone returns home healthy and safe at the end of every day. In 2022, we worked to develop injury prevention, contractor and site safety, and our safety culture.

Valmet is committed to protecting the health and safety of its people, customers, partners, and the communities where we operate. We protect people by investing in a positive safety culture, collaborating with customers and partners, and constantly improving our safety-related processes and practices.

Valmet's overall focus on health and safety continued throughout 2022, and our Total Recordable Incident Frequency (TRIF) for external workers was at its lowest ever at 4.7 (6.8). For our own employees it remained at 3.2 (3.1). We significantly increased the number of walks, inspections and conversations promoting health and safety to four per manager.

However, there is more to do. Regrettably, in January, a fatal contractor injury occurred during installation work at Valmet's customer site in Sweden, and in December, a contractor passed away after an incident during flow control product testing in Valmet's factory in Ambernath, India. Immediately after both incidents, Valmet initiated investigations in cooperation with the authorities and other stakeholders. Corrective actions and improvements have been taken, and lessons learned shared globally.

In May 2022, a fire broke out at Valmet's Rautpohja factory in Jyväskylä, Finland. While material damage could not be avoided,

our evacuation routines worked as drilled, and no one was seriously injured, despite the risk the fire posed. In response, Valmet conducted systematic fire safety checks at all other facilities worldwide.

### Campaigns for hands and working at heights

Valmet safety campaigns are rooted in the firm belief that all incidents can be prevented, and our goal of zero harm is achievable. Over the course of 2022, Valmet's injury prevention campaigns centered on hand safety and working at heights.

Since about 40 percent of all injuries to our people and partners involve hands, in February, we started to raise awareness of the hand injury risks many Valmetees face. The campaign included tool inspections, holding seminars about Personal Protective Equipment (PPE), as well as sharing information about hand safety.

Our second major campaign of the year addressed working at heights. A primary campaign focus was to promote the proper use of safety harnesses. We also emphasized the responsibility of managers in assessing and executing such work safely, as well as the key role employees play in identifying and suggesting improvements in our ways of working.

### Contractor and site safety

Engaging our partners in health and safety dialogue and development is a critical element of our safety management approach. Every year, we hold several Contractor health, safety and environment (HSE) days, during which we align safety commitments and expectations with our main site suppliers. These events are highly appreciated by our partners, and in 2022, we continued the effort in Brazil, China, Finland, India and Sweden.

We also help our partners through our contractor safety program. The program is an end-to-end effort to improve safety in all contract relations. We train contractors about rules and expectations, and during the year, we developed a training on HSE for site supervisors, which will also be launched for contractor supervisors.

As part of our continuous improvement efforts, we updated Valmet's minimum safety standards in 2022. The Valmet minimum safety standards cover 15 high-risk activities and are available in 17 languages.

**Embedding safety into workplace culture**

Through standards, processes, and routines, we can systematically control and improve health and safety. To achieve our goal of zero harm, however, we need to have a safety-first mindset. This comes from nurturing a culture of safety at the workplace. To support our safety culture, a key focus during 2022 was to increase HSE communications and awareness through team-based toolbox talk practices, as well as info calls and newsletters on topical issues.

One of our annual efforts to encourage a culture of safety is our HSE Awareness Week. During this week, global online events and local in-person activities are held. Local activities range from simple stretching and strength exercise sessions to organizing special safety clinics, wellbeing seminars and campaigns.

In 2022, we started piloting our new HSE Ambassador Program in Valmet's Pulp and Energy business line, offering opportunities for people interested in health and safety to promote our safety culture in day-to-day activities.

**Global health and safety process development**

Health and safety are an essential element of the Valmet product offering. In 2022, we invested in product safety development and established a cross-functional team to develop training, share best practices and improve tools. Our approach for product and process safety management covers all phases from research and development to lifecycle services after the project delivery.

In 2022, we continued to define and develop global health and safety processes, which are included in the Valmet Handbook for all Valmetees. We also continued to work on aligning and

integrating operations that Valmet has acquired into our HSE processes and global management system.



➤ **Good practices from South America**

Valmet's team in South America has systematically developed a strong safety culture and fact-driven improvements that support site safety.

**HEALTH AND SAFETY PROGRAM**

| OBJECTIVE   | KEY PERFORMANCE INDICATOR   | TARGET  | TARGET 2025 | TARGET 2030 |
|---|---|---|-------------|-------------|
| Proactive HSE culture   | Number of HSE events reported per employee/year                                   | Increase employee engagement in developing HSE culture through HSE event reporting                            | 4           | 6           |
| Proactive HSE culture   | Number of HSE walks, inspections and conversations/toolbox talks per manager/year | Increase visible safety leadership by managers through HSE walks, inspections and conversations/toolbox talks | 4           | 6           |
| Certified HS management systems in main operations                | % Employees working under ISO 45001:2018 system                                   | Expand ISO 45001:2018 system certification  | 80%         | 90%         |
| Safe workplaces (own employees)                                   | Total recordable incident frequency (TRIF)  | Continue to reduce TRIF   | ≤3.0        | ≤3.0        |
| Safe workplaces (own employees)                                   | Lost time recordable incident frequency (LTIF)                                    | Continue to reduce LTIF   | ≤1.5        | ≤1.0        |
| Safe workplaces (external workers)                                | Total recordable incident frequency (TRIF)  | Continue to reduce TRIF   | ≤4.0        | ≤3.0        |
| Safe workplaces (external workers)                                | Lost time recordable incident frequency (LTIF)                                    | Continue to reduce LTIF   | ≤2.0        | ≤1.0        |
| Healthy workplaces (own employees)                                | Absentee rate   | Maintain absentee rate at 2.6 or less   | 2.6         | 2.6         |
| High-consequence injury-free operations (employees and externals) | Number of high-consequence injuries   | Elimination of high-consequence injuries  | 0           | 0           |

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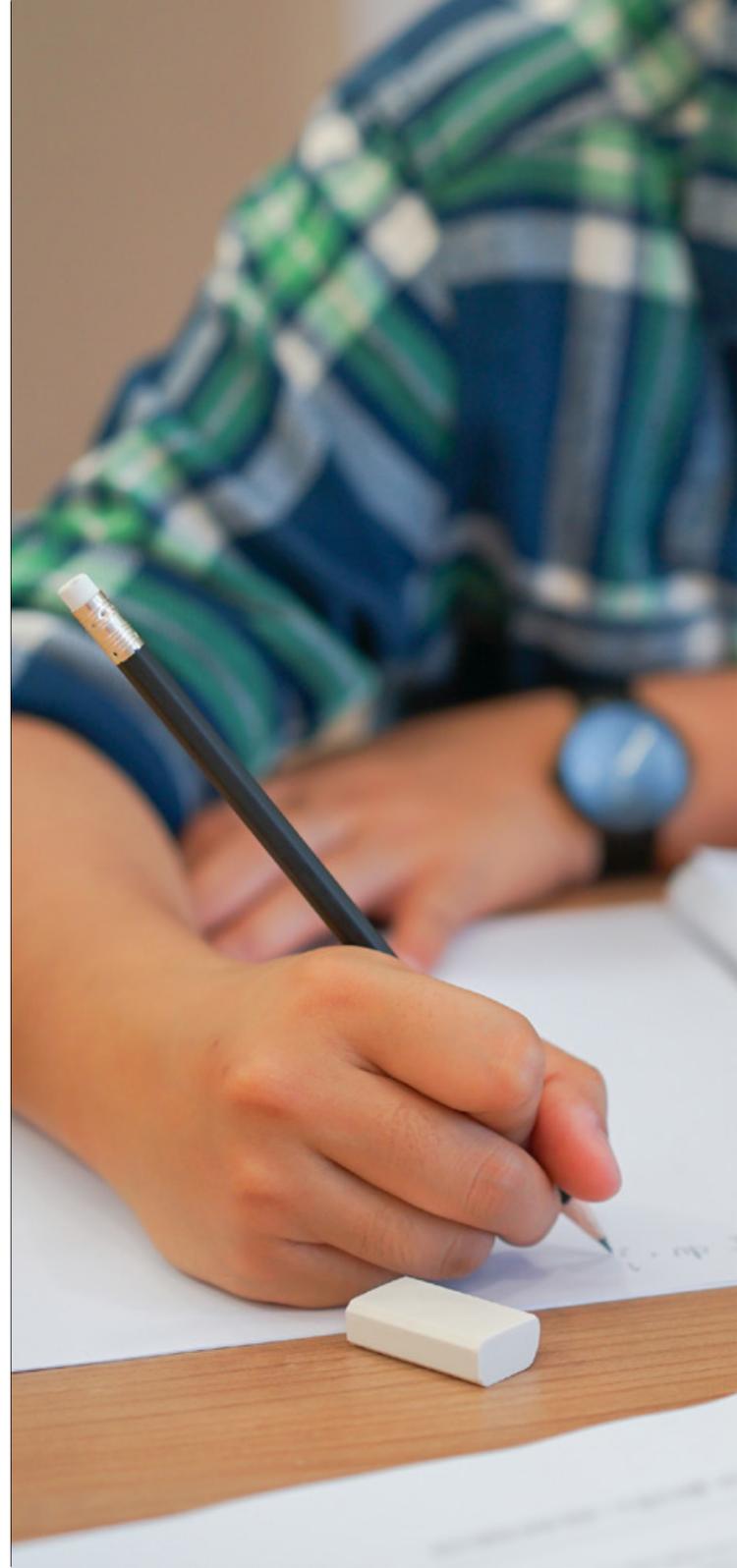
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## Corporate citizenship

With operations in over 40 countries and a global network of partners and stakeholders, Valmet carries significant responsibility as a corporate citizen. In 2022, we launched a renewed social responsibility program, while continuing our strong support for research and education and engaging with local communities.

As a global company and a recognized sustainability leader in our industry, we work in a multicultural business environment, where companies may have a range of potential social impacts. Our growing presence in emerging markets emphasizes our responsibility toward local communities.

Our corporate citizenship efforts aim to build awareness of Valmet as a positive contributor to the societies where we operate. With global operations, we directly provide employment and business opportunities and indirectly build wellbeing in local communities.

**In 2022, Valmet renewed its social responsibility program with the target of building local programs linked to key themes.**

**Renewed focus on local needs and actions**

In 2022, Valmet renewed its Social Responsibility Program with the target of building local programs linked to key themes. Based on a systematic selection process involving Valmet employees, several local projects were started at the end of the year, covering all the geographical areas in which Valmet operates. The renewed program aims to increase the local impact of donated funds, enhance Valmet's visibility in communities, and open up more opportunities for local Valmeteers to engage in local program activities.

In March 2022, Valmet donated EUR 50,000 to UNICEF Finland to help children and their families affected by the war in Ukraine. The plight of Ukrainians also sparked a Valmeteer to kick off an employee fundraiser for the Finnish Red Cross Disaster Relief Fund to help the victims of the war. By the end of the fundraising period in July 2022, employees had donated over EUR 26,000. In recognition of the employee-driven effort, Valmet donated EUR 25,000 to the Finnish Red Cross Disaster Relief Fund in April 2022.

**Partnering with universities to drive development**

Valmet has a long history of mutual cooperation with universities, for example, in the fields of engineering and mathematics. Valmet's research and development work is complemented by a network of world-leading research facilities and universities. In recent years, that cooperation has intensified, with several Valmet employees completing their doctoral research as a part of their work and personal development. Please check Engaged workplace on page [53](#) for more information on developing talent.

Valmet is actively expanding its collaboration and engagement with students and universities in Finland and abroad, supporting new trainee programs, establishing a global concept for university cooperation, and working with middle schools to raise the profile of engineering studies among students. For instance, a EUR 50,000 donation to the University of Jyväskylä in Finland was announced in July. The donation supports the important work that the university is doing for science and education.



➤ Valmet expands its global Social Responsibility Program with new local projects

The Social Responsibility Program is part of Valmet's sustainability agenda implementation.

We also continue our summer trainee program in Finland and Sweden. In 2022, Valmet had nearly 500 trainees working in its locations around Finland alone. The training period gives students valuable work experience, but it is also valuable for Valmet. The students bring fresh ideas and the latest information with them, contributing to Valmet's aim of continuous improvement and renewal.

DISTRIBUTION OF ECONOMIC VALUE ADDED TO OUR STAKEHOLDER GROUPS

Direct economic value generated

EUR 5,190 million



Economic value distributed



Operating costs: **EUR 3,567 million**  
 Employee wages and benefits: **EUR 1,171 million**  
 Payments to providers of capital: **EUR 201 million**  
 Payments to government: **EUR 112 million**  
 Support for non-profit organizations: **EUR 0.42 million**



Retained in business

EUR 139 million

INCOME TAXES (10 LARGEST COUNTRIES)

| EUR MILLION | 2022 |
|-------------|------|
| Finland     | 36.7 |
| USA         | 24.5 |
| Brazil      | 19.0 |
| China       | 12.2 |
| Sweden      | 4.3  |
| Canada      | 3.9  |
| Poland      | 2.1  |
| Indonesia   | 1.6  |
| Japan       | 1.3  |
| Chile       | 1.3  |

Support for non-profit organizations, % EUR 414,852 in total



- Youth activities 47%
- Science, research and education 24%
- Others (community, culture, sports) 29%

# Governance

We follow ethical business practices, ensure a sustainable supply chain and report transparently.

## Ethical business practices

- Our daily operations are guided by Valmet's Code of Conduct and related policies.
- We have integrated sustainability criteria into our compliance and due diligence processes.
- We have a standardized global way of working according to the ISO standards for quality, environment and health and safety.
- We have a systematic approach to sustainability management.

## Sustainable supply chain

- We have a comprehensive sustainable supply chain process, including supplier risk assessments and audits.
- We continuously work to improve the transparency of our supply chain.
- We have a global supplier sustainability engagement program to drive transformation.

## Transparent reporting

- We are an acknowledged industry leader in sustainability and promote transparent and assured reporting on our progress and impacts.



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## GOVERNANCE

# Ethical business practices

We strive to ensure that all operations are carried out in a socially responsible manner. In 2022, we revised our Ethics and Compliance Program, refined our list of salient human rights issues, strengthened sustainability management and expanded operational certifications.

We strive for globally consistent and transparent management practices so that all our stakeholders can reliably assess the sustainability of our operations and development. Valmet also supports and promotes selected international guidelines and principles and is a signatory of the UN Global Compact.

### Code of Conduct

Valmet's Code of Conduct guides the actions and decisions of Valmet's employees and its partners. The code sets the standards of responsible behavior and creates a uniform foundation for ethical business transactions and work assignments.

Our Code of Conduct applies to everyone, everywhere, every day. To reinforce this message, Valmet launched a revised Ethics and Compliance Program in 2022. The program focuses on ensuring that all employees understand that everyone is responsible for ensuring that Valmet does business ethically and legally. This starts with ethical leadership and leading by example.

In 2022, we also prepared for the EU Whistleblowing Directive to ensure we are compliant as local legislation comes into force. We defined and facilitated a restructured organization for handling reported misconduct throughout the company. Corporate and Area Compliance Committees were created to

ensure reported misconduct leads to appropriate and similar action throughout the organization. We also held a global Speak Up communications campaign for all Valmeteers. The campaign emphasized the importance of reporting concerns and raised awareness of reporting channels, particularly our external reporting channel, TrustLine. The portal, operated by a third party to guarantee anonymity, is open 24/7 and can be reached via the internet or telephone in the reporter's native language.

Valmet runs a global Privacy Program based on European Data Protection Principles. Local adaptation of global procedures has been one of the focus areas in 2022.

We have e-learning courses on the Valmet Code, Anti-Bribery and Corruption, Competition Law Compliance and Data Privacy. By the end of 2022, 87 percent of 17,548 employees have completed the current mandatory Code of Conduct e-learning course.

### Social impact of ethical business

Valmet is committed to the United Nations Guiding Principles on Business and Human Rights, and we express our engagement in our Human Rights Statement. We have a comprehensive due diligence framework to monitor and manage social impacts related to our own operations and our supply chain.

The due diligence framework includes social impact assessments and their findings, action plan creation and monitoring progress. We have a location-specific social impact assessment process, targeting the assessment of social impacts in our operations to ensure our social policies and procedures are effective and adequate. In late 2022, we conducted a social impact assessment in India.

In 2022, we evaluated our social impact due diligence framework to ensure full alignment with the United Nations' Guiding Principles on Business and Human Rights. We redefined our salient human rights issues as part of continuous renewal and development. The updated list of salient issues includes 14 UN human rights. Valmet's human rights due diligence framework can now focus exclusively on these salient issues. Our due diligence process remains as before, with four distinct phases: collecting information about social impacts; identifying actual or potential impacts; analyzing findings for corrective actions; and implementing and reporting on these actions.

**Certified operations equal well-managed business**

Valmet's Global Management System (GMS) provides a common platform for quality and HSE management in all operations. Through the annual planning process, targets and improvement initiatives are aligned across all units and locations to drive development toward our strategic objectives. By taking best practice into common global practice, we are able to continually improve.

We believe that multisite certification of our operations assures our customers and other stakeholders that we have a process-oriented and standardized global way of working according to the international ISO standards for quality (9001:2015), environment (14001:2015), and health and safety (ISO 45001:2018) management systems. Our target is that at least 80 percent of our people will work in operations certified to all three standards by 2025.

We made significant progress toward that 80 percent goal during 2022, as 11 locations were added with new or expanded certifications. Altogether, 37 Valmet locations were audited by an external auditor during the year.

**Strengthened sustainability management**

Valmet has strengthened sustainability-related governance to increase dialogue with Valmet's functions, business lines and areas. With its renewed Sustainability360° agenda, Valmet



➤ **Social impact assessment**

Valmet is committed to the UN Guiding Principles on Business and Human Rights. In 2022, we conducted a social impact assessment in India.

significantly strengthened sustainability related governance. We created a broader and more detailed formulation of our sustainability governance framework, explicitly defining teams, meeting purposes, schedules and agendas.

With stronger sustainability management, Valmet aims to deepen the systematic and impactful dialogue across all business lines and areas. The larger communication framework with a greater degree of formality will help ensure our sustainability efforts remain focused on Valmet's material topics with progress checks and regular support for annual sustainability planning.

**MANAGEMENT SYSTEMS (% OF HEADCOUNT)**

SHARE OF CERTIFIED OPERATIONS, 2022

**87%**

ISO 9001:2015  
Quality Management System

**78%**

ISO 14001:2015  
Environmental Management System

**75%**

ISO 45001:2018  
Occupational Health and Safety Management System

**Our Code of Conduct applies to everyone, everywhere, every day.**

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# Sustainable supply chain

Ensuring sustainability in our supply chain is an important part of implementing Valmet's sustainability agenda. During 2022, we updated Valmet's Sustainable Supply Chain Policy and supplier sustainability risk assessment, launched a climate-related e-learning course for our suppliers and continued our supplier engagement.

Valmet's Supply Chain aims to be a world-class operation that delivers sustainable and competitive results through close collaboration with suppliers. As many production phases of Valmet are handled by its suppliers, it has an extensive supplier network today, with over 30,000 active suppliers in nearly 60 countries. Global supply chains are complex and challenging to monitor. Valmet has systematically developed and integrated sustainability into its supply chain processes. We engage our suppliers to continuously develop their sustainability performance to ensure transparent and sustainable operations.

Valmet's suppliers have different sustainability risk levels, derived from the supplier's country of origin or purchasing category. For identifying, assessing, and managing various sustainability risks, Valmet has a global four-step supplier sustainability management process. Valmet's Sustainable Supply Chain Policy sets the basic themes and requirements for all steps in the process, covering business ethics and compliance, human and labor rights, occupational health and safety, climate and environmental management, and sustainable products and services.

Valmet's supplier sustainability management process is an integral part of the supplier approval process. It includes gates

and controls to ensure Valmet cooperates only with suppliers that share the same ethical principles and ideology of responsible business practices. The supplier evaluation process is mandatory in evaluating new suppliers before starting cooperation.

### Updated policy requirements and enhanced sustainability risk assessments

Our Sustainable Supply Chain Policy has been in place since 2014. In 2022, we updated the policy with new legal compliance requirements related to export control, trade sanction laws and regulations. We also strengthened our requirements related to climate, products and services. We expect suppliers to monitor, report, and strive to reduce the CO<sub>2</sub> emissions of their operations and their own value chain. In addition, suppliers must continually reduce hazardous substances in their products and ensure conflict-free sourcing.

All suppliers are evaluated through a sustainability risk assessment based on the country of purchase and the purchasing category. The risk assessment is the second step of our supplier sustainability management process, aiming to assess the potential negative impacts and risks. The outcome determines the actions needed in the remaining steps of the process: self-assessment; and sustainability auditing. In 2022, Valmet updated both country and purchasing category risk levels.

### Ensuring compliance with Valmet's requirements through auditing

To ensure compliance with the requirements of our Sustainable Supply Chain Policy and with related local and international laws, we have a systematic auditing framework in place. Valmet has conducted supplier sustainability audits globally every year since 2015. In 2022, we conducted 45 supplier sustainability audits in 14 countries with a certified third-party auditor.

We also continued to focus on ensuring the right timing and good quality of the audit follow-up process and the verification of agreed corrective actions. The findings of these audits were mainly related to human and labor rights, and health and safety.

Of all corrective actions agreed with suppliers in 2022, 47 percent had been completed and verified by the end of the year. Since 2015, 90 percent of all actions agreed with suppliers as part of the auditing process had been completed and verified by the end of 2022.

Valmet has identified increased sustainability risks at customers' sites, where many of our contractors and their subcontractors operate. We have developed a specific auditing process for site works suppliers to mitigate risks at sites, monitor subcontractors' compliance more efficiently and to further increase the visibility to our supply chain beyond tier 1 suppliers. In 2022, we piloted the process at customer sites in Sweden and Finland.

**Supplier sustainability engagement reinforced**

To further strengthen the cooperation with suppliers in the field of sustainability, Valmet has implemented a Sustainability Engagement Program since 2018. The program supports and monitors suppliers' performance and provides hands-on concrete tools and training for them to take the most critical steps to develop their sustainability practices. 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



> **Valmet's new site supplier sustainability auditing process piloted in Kemi, Finland**

The new sustainability auditing process was developed specifically for suppliers working at customers' sites.

**VALMET'S GLOBAL SUPPLIER SUSTAINABILITY MANAGEMENT PROCESS**

**Required from all suppliers**

**SUSTAINABLE SUPPLY CHAIN POLICY**



**SUSTAINABILITY RISK ASSESSMENT**



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

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

**Required based on a supplier risk assessment**

**SUPPLIER SELF-ASSESSMENTS**



**SUSTAINABILITY AUDITS**



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

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

(SRM) program. SRM is used to evaluate, manage and improve suppliers' sustainability in a globally aligned manner.

The program includes internal training and a virtual supplier sustainability day for the participating suppliers to introduce the importance of sustainability at Valmet, identify collaboration areas and share best practices. The aim is to increase awareness and give practical advice on how to develop more sustainable business operations.

Since the launch of Valmet's Climate Program in 2021, we have been developing our Supplier Engagement Program further to cover climate related topics more fully. During 2022, selected suppliers from China and EMEA with the most CO<sub>2</sub>-intensive operations were invited to join the new engagement program. By working together based on open dialogue about the impacts of climate change, we can reduce the emissions in the supply chain and meet the growing market expectations for carbon neutral products and services and reach the supply chain's CO<sub>2</sub> reduction target of 20 percent by 2030.

We also aim to increase data quality for more precise and transparent sustainability reports by introducing supplier-specific emissions reporting for these selected suppliers. Our

suppliers not only benefit from Valmet's experience in sustainable operations, but they are able to achieve operational cost savings through lower emissions and better energy efficiency, improving business performance and contributing to customer satisfaction and trust.

All Valmet suppliers are provided access to a competence-building library with concrete development tools, several e-learning courses, and practical handbooks. We aim to increase awareness and give practical advice on how to develop more sustainable business practices. In 2022, Valmet launched a new Climate e-learning course for suppliers to specifically address emissions, and how to reduce them.

**Valmet in brief**

**President and CEO's review**

**This is Valmet**

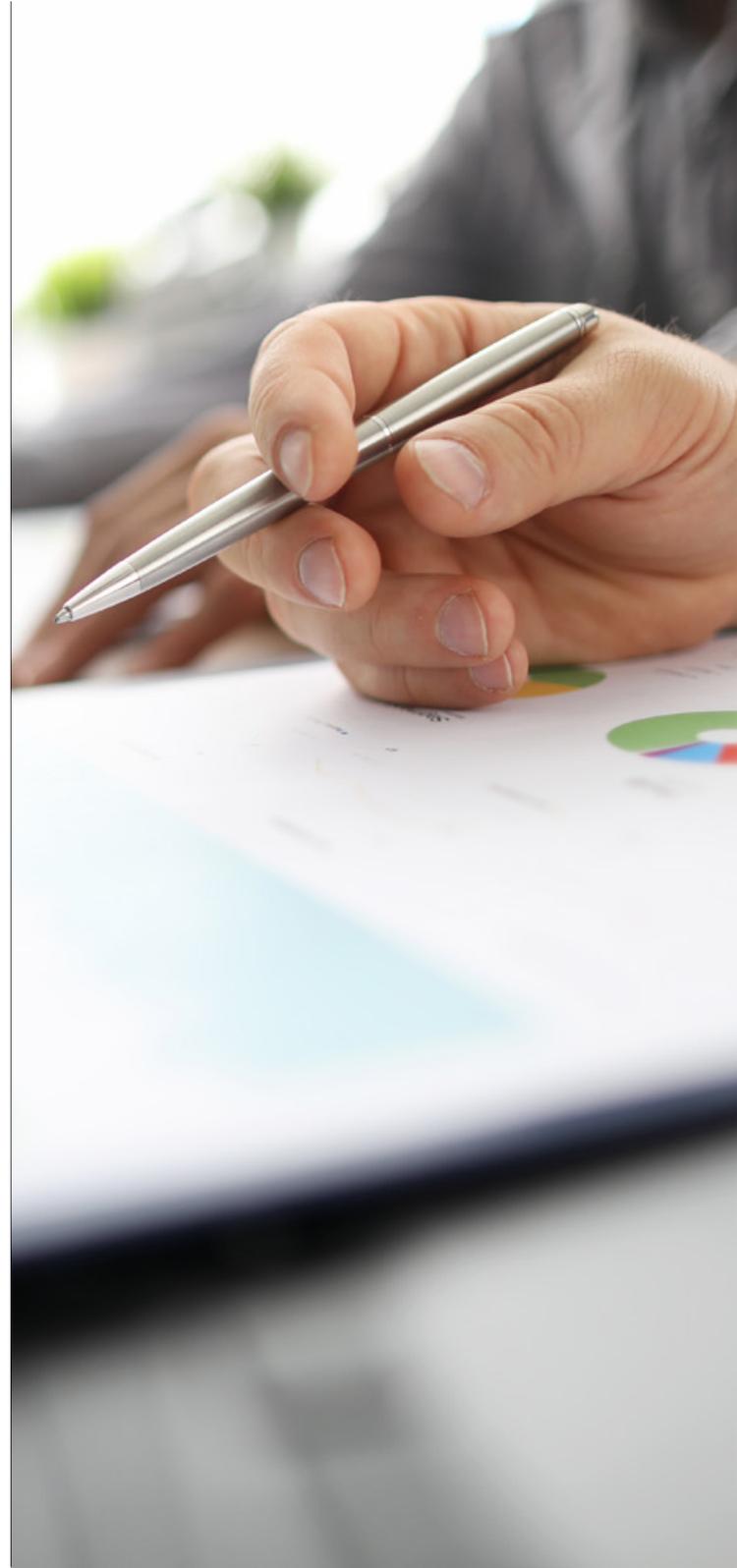
**Business reviews**

**Strategy**

**Sustainability**

- Sustainability360° agenda
- Progress on Sustainability360° agenda
- Environmental
- Social
- Governance

**Contacts**



**GOVERNANCE**

# Transparent reporting

Valmet promotes openness and transparency in the management and reporting practices of its entire value chain. In 2022, we further developed our reporting framework to prepare for future requirements regarding sustainability reporting.

Valmet strives for globally consistent and transparent management and reporting practices and participates in several third-party sustainability ratings to help stakeholders assess its sustainability performance. We also actively collaborate with our stakeholders to share thoughts and communicate about our recent developments through numerous channels.

**Preparing for future reporting requirements**

The sustainability reporting landscape is rapidly changing. More reporting frameworks have been introduced, and stakeholders expect these new reporting requirements to be followed.

Valmet has been reporting sustainability performance according to the Global Reporting Initiative (GRI) standards since 2014. Valmet is a committed participant of the UN Global Compact (UNGC) and its Ten Principles on human rights, labor, environment and anti-corruption. Since 2014, we have reported on our sustainability performance annually in line with the UNGC's Communication of Progress process.

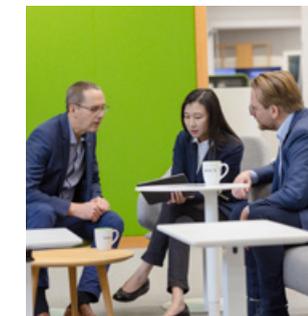
In 2018, we started to report selected sustainability indicators according to the EU Non-Financial Reporting Directive (NFRD). Since 2020, we have reported climate-related information according to the Task Force on Climate-

related Financial Disclosures (TCFD) recommendations. In 2022, Valmet continued the climate scenario analysis of its operations and business environment with quantitative modeling of the most impactful climate-related risks and opportunities. Focusing on Valmet's largest geographical locations and key elements in the supply chain, the analysis provided a financial impact range for the climate-related risks and opportunities by 2030, based on the 1.5 °C and 4 °C scenarios.

Valmet reported financial figures according to the EU's taxonomy regulation for the first time in 2021, and the work continued in 2022.

To support current and future integrated reporting needs, we continued to develop internal reporting systems and started to assess external reporting tools in 2022.

➤ **READ MORE:**  
[Valmet's TCFD report](#)



➤ **EU taxonomy reporting continued**

In 2022, Valmet continued to develop its processes related to the EU taxonomy, a system for determining environmentally sustainable activities.



## ANNUAL REVIEW 2022

### Valmet in brief

### President and CEO's review

### This is Valmet

### Business reviews

### Strategy

### Sustainability

Sustainability360<sup>o</sup> agenda

Progress on Sustainability360<sup>o</sup> agenda

Environmental

Social

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### Valmet recognized as a sustainability leader

We report to several third-party sustainability rating organizations for independent evaluation of our sustainability efforts. Over the years, Valmet has been recognized as a global leader in multiple rankings.

In 2022, Valmet was included for the ninth consecutive year in the Dow Jones Sustainability Index (DJSI), a comprehensive ranking which evaluates companies' ESG (Environmental, Social, Governance) performance.

Valmet also received the best ranking in the MSCI ESG Ratings, a gold medal in the EcoVadis sustainability assessment, as well as the Bronze Class distinction in S&P Global's annual Sustainability Yearbook.

Valmet reports to CDP, an international non-profit organization that assesses climate-related information from companies to manage their environmental impacts and to help investors better understand the financial risks and opportunities that climate change presents to their portfolio companies. Via the CDP Climate questionnaire, Valmet also reports its annual progress against its Climate Program's CO<sub>2</sub> reduction targets, approved by the Science Based Targets initiative (SBTi). In 2022, Valmet received the A- leadership level rating in CDP Climate.

## VALMET IS A GLOBAL LEADER IN SUSTAINABILITY

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



**Sustainability Award  
Bronze Class 2022**  
**S&P Global**



# Valmet reports 2022



## FINANCIAL STATEMENTS 2022 AND INFORMATION FOR INVESTORS

The report includes Valmet's Financial Statements for 2022 and information about its share, shareholders and management.



## ANNUAL REVIEW 2022

The report covers Valmet's market environment and the progress of its strategy, operations and sustainability in 2022.



## GRI SUPPLEMENT 2022

The report includes Valmet's sustainability reporting indicators and principles, and its alignment with the Global Reporting Initiative (GRI) Standards framework in 2022.



## REMUNERATION REPORT 2022

The report covers Valmet's remuneration principles and remuneration in 2022.



## CORPORATE GOVERNANCE STATEMENT 2022

The report covers Valmet's governance principles and activities, Board of Directors and management in 2022.

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