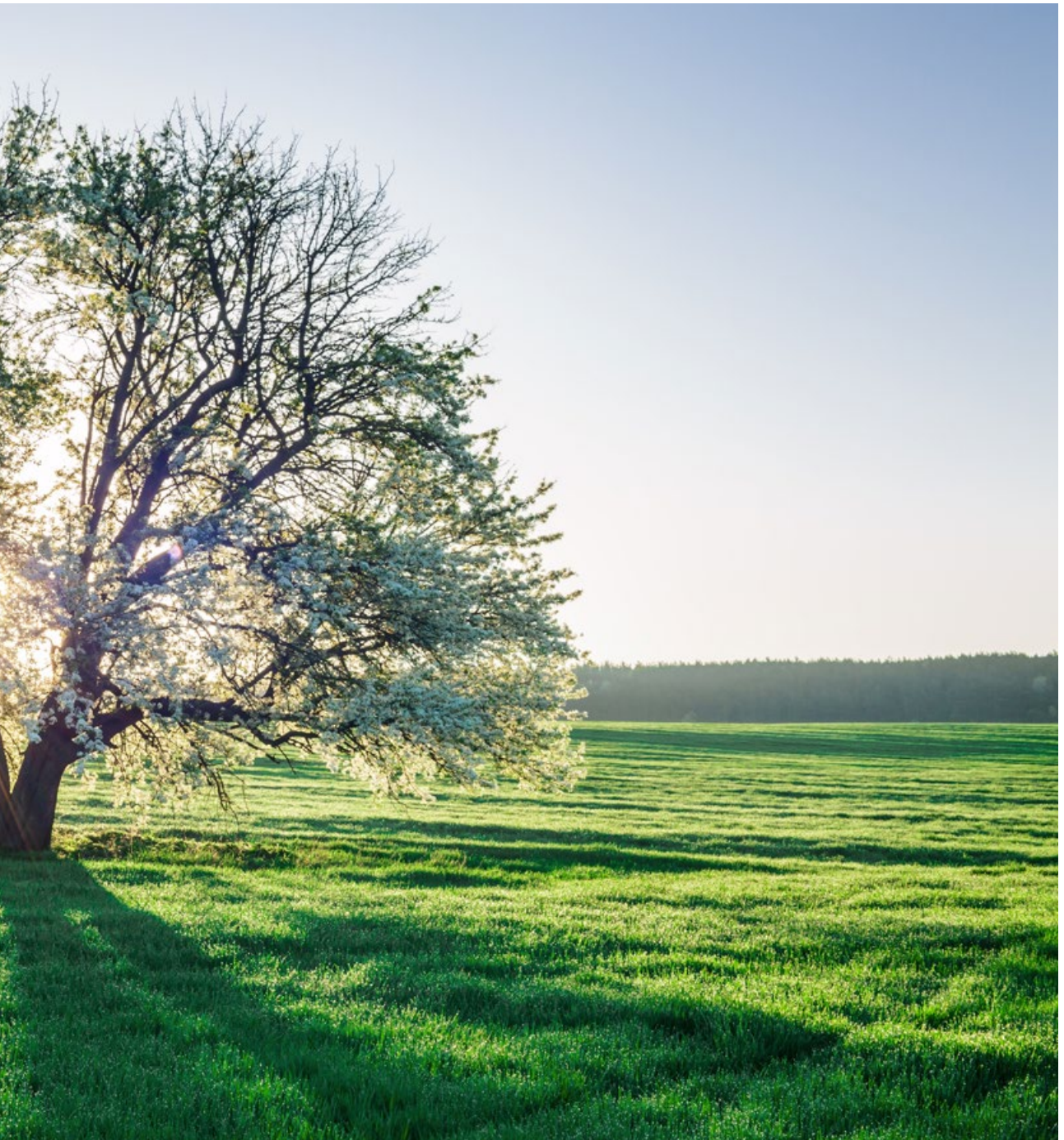
GRI Supplement
2021

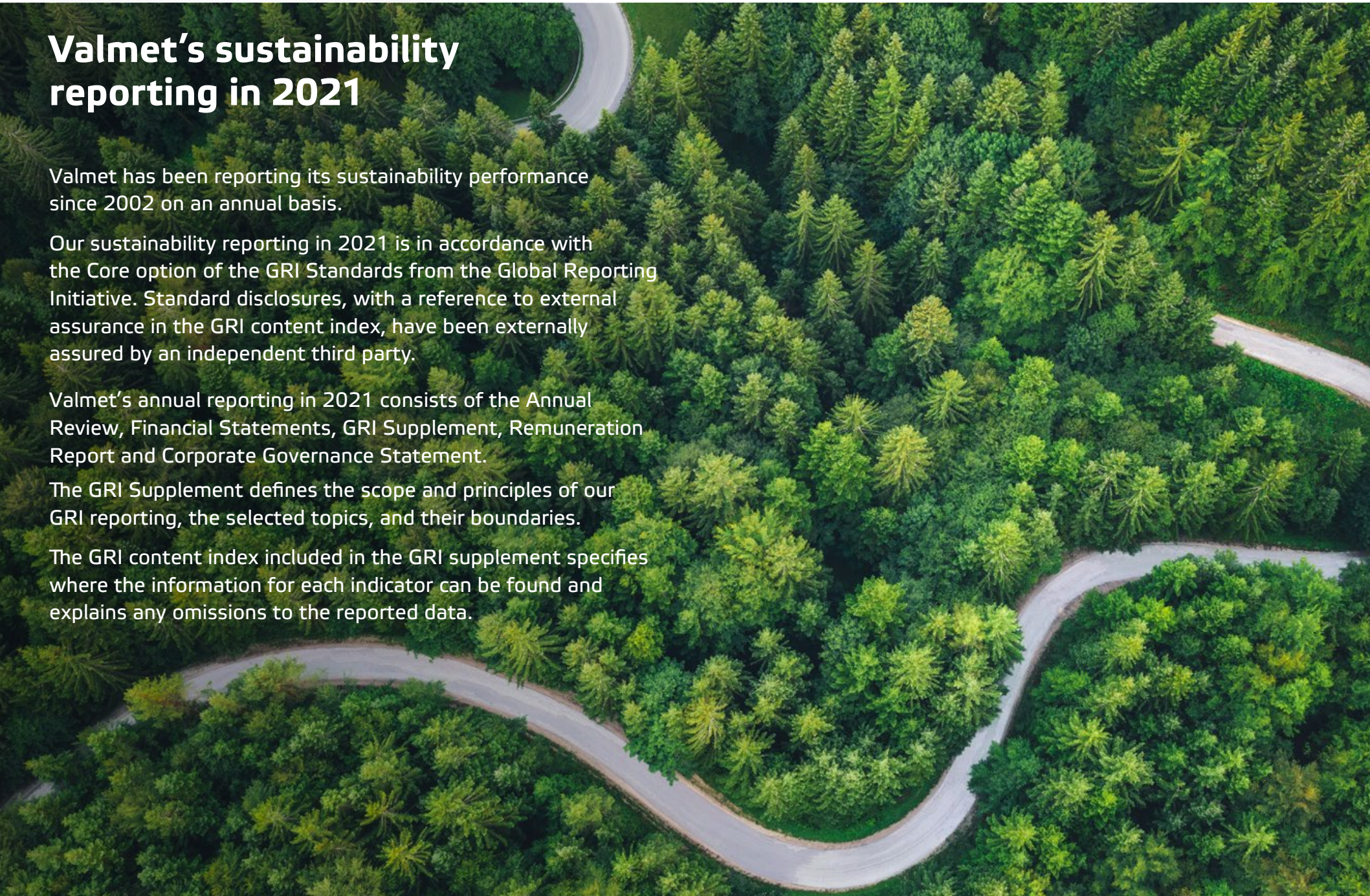
Sustainability is at the core of Valmet's business strategy and operations.

Our values, Code of Conduct, related policies, and selected globally acknowledged initiatives and principles create the foundation for sustainable performance at Valmet.



Contents

Valmet's sustainability reporting in 2021



Valmet has been reporting its sustainability performance since 2002 on an annual basis.

Our sustainability reporting in 2021 is in accordance with the Core option of the GRI Standards from the Global Reporting Initiative. Standard disclosures, with a reference to external assurance in the GRI content index, have been externally assured by an independent third party.

Valmet's annual reporting in 2021 consists of the Annual Review, Financial Statements, GRI Supplement, Remuneration Report and Corporate Governance Statement.

The GRI Supplement defines the scope and principles of our GRI reporting, the selected topics, and their boundaries.

The GRI content index included in the GRI supplement specifies where the information for each indicator can be found and explains any omissions to the reported data.

Reporting principles

Our reporting covers the Valmet Group unless otherwise stated. Valmet acquired one Finnish and one German company in 2021. The GRI indicators exclude data from these two companies. Valmet targets the reporting of complete data in all GRI indicators, including the acquired businesses, from 2022 onwards.

The Group sustainability reporting excludes associated companies and joint ventures. Data on suppliers is provided to the extent required by the reported GRI indicators. In the GRI supplement, Valmet reports three-year trend data for material indicators in the respective columns. For some indicators, the 2020 numbers are shown in brackets after the 2021 numbers. Any other deviation of the data reported is noted separately.

Financial reporting

In our Group financial reporting, we follow the International Financial Reporting Standards (IFRS). Figures describing economic responsibility are mainly based on the financial statements. The data on purchases by country has been collected separately from the reporting units, and the country division is determined based on the supplier's domicile. The data on support for non-profit organizations is collected annually from the relevant Valmet units.

Health, safety and environmental data

Valmet's Health, Safety and Environment (HSE) organization is responsible for collecting and reporting HSE data, including data covering work-related injuries for external workers. Harmonized global HSE reporting principles and a systematic data validation process form the basis of data quality for our HSE reporting. Some of the HSE data has been restated based on improvements in data quality.

Injury data is reported continuously by all employees in a global HSE event management system. The data is consolidated and analyzed in accordance with the European Statistics on Accidents at Work (ESAW) methodology. This methodology is based on the code of practice of the International Labour Organization (ILO), "Recording and notification of occupational accidents and diseases."

Environmental data is collected quarterly in a global environmental reporting system based on local invoice, measurements and consumption records. Environmental data from the businesses acquired in 2020 is reported for the first time in 2021. We apply the financial control method outlined in the GHG Protocol "Corporate Accounting and Reporting Standard" of the World Business Council for Sustainable Development (WBCSD).

Valmet assesses its Scope 1 and 2 emissions based on the GHG Protocol's "Corporate Accounting and Reporting Standard."

Valmet assesses its Scope 3 emissions based on the GHG Protocol's "Corporate Value Chain (Scope 3) Accounting and Reporting Standard." Valmet reports data on five selected relevant categories of Scope 3: 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.

Personnel data

Valmet's Human Resources organization is responsible for collecting and reporting personnel data. The personnel and payroll data published in the financial statements is obtained in conjunction with financial reporting and is managed by Valmet's HR system specialists, using a global people management system. Valmet's global people management system allows access to versatile and comparable HR data globally.

Harmonized global HR reporting principles and a systematic data validation process constitute the basis of data quality for reporting related to our personnel. The employee data reported in our sustainability reporting for 2021 includes all active Valmet employees. The gender category includes three options (Female, Male, Not Declared). In 2021, the number of individuals in the "Not Declared" category was not large enough to impact the overall gender figures shown in this report and is therefore not included as a separate gender column. The number of employees not included in the published data, namely all inactive employees on leave of absence (e.g. study-leave, long-term sick leave, parental leave) is minor and amounts to less than two percent of the total number of employees.

GRI content index

GENERAL DISCLOSURES							
GRI STANDARD	DISCLOSURE NUMBER	DISCLOSURE TITLE	GENERAL DISCLOSURES	LOCATION	COMMENTS	OMISSIONS	ASSURANCE
ORGANIZATIONAL PROFILE							
GRI 102	102-1	Name of the organization	Name of the organization	See comments	Valmet Oyj		
GRI 102	102-2	Activities, brands, products and services	Activities, primary brands, products and services	AR 14–15			
GRI 102	102-3	Location of headquarters	Location of headquarters	See comments	Keilasatama 5 / P.O. Box 11, 02150 Espoo, Finland		
GRI 102	102-4	Location of operations	Countries in which operations are located	AR 8			
GRI 102	102-5	Ownership and legal form	Nature of ownership and legal form	See comments	Valmet Oyj is a public company, and its shares are listed on the Nasdaq Helsinki.		
GRI 102	102-6	Markets served	Markets served	AR 10–11			
GRI 102	102-7	Scale of the organization	Scale of the organization	Personnel and net sales: AR 6. Total capitalization, FS 24: Consolidated Statement of Financial Position	The total number of locations is 182.		
GRI 102	102-8	Information on employees and other workers	Breakdown of employees by contract type, employment type, region and gender	GR 11, FS 14		Valmet does not collect information in its global people management system about workers who are not employees of the company. Valmet's business model has no significant seasonal variations.	x
GRI 102	102-9	Supply chain	Description of supply chain	AR 48–49, 56, 58, 60–62, GR 17			
GRI 102	102-10	Significant changes to the organization and its supply chain	Significant changes during the reporting period regarding the organization's size, structure, ownership, or its supply chain	See comments	In 2021, Valmet acquired one company in Finland and one in Germany.		
GRI 102	102-11	Precautionary Principle or approach	Addressing the precautionary approach or principle	www.valmet.com/riskmanagement	Valmet has a comprehensive risk management process in place that enables Valmet to efficiently manage risks to avoid any harm to the environment and ensure the continuity of its operations.		
GRI 102	102-12	External initiatives	External charters, principles or initiatives endorsed	AR 72–74, GR 12			
GRI 102	102-13	Membership in associations	Membership in associations	GR 12			

Abbreviations:
AR = Annual Review 2021
FS = Financial Statements 2021 and Information for Investors
GR = GRI Supplement 2021
CG = Corporate Governance Statement 2021

GENERAL DISCLOSURES							
GRI STANDARD	DISCLOSURE NUMBER	DISCLOSURE TITLE	GENERAL DISCLOSURES	LOCATION	COMMENTS	OMISSIONS	ASSURANCE
STRATEGY							
GRI 102	102-14	Statement from senior decision maker	Statement from the President and CEO	AR 2–3			
GRI 102	102-15	Key impacts, risks and opportunities	Sustainability risk management	AR 10–11, 26–28, GR 13, FS 10, 15–16, 22–23 CG 12	Read more: Valmet Risk Profile 2021: www.valmet.com/globalassets/investors/governance/risk-management/valmet-risk-profile-2021.pdf Valmet's Sustainability risks and opportunities: www.valmet.com/sustainability/sustainability-at-valmet/risks-and-opportunities/ Valmet's full TCFD report: www.valmet.com/investors/sustainable-investment/tcfd/		
ETHICS AND INTEGRITY							
GRI 102	102-16	Values, principles, standards, and norms of behavior	Organization's values, principles and codes	AR 38, 54, 69, 72–74			
GRI 102	102-17	Mechanisms for advice and concerns about ethics	Mechanisms for advice and concerns about ethics	GR 13, CG 12–13	Read more: www.valmet.com/about-us/code-of-conduct/		
GRI 102	102-18	Governance structure	Governance structure	GR 16, CG 2–10	Read more: www.valmet.com/investors/governance/ www.valmet.com/sustainability/ethical-business-practices/sustainability-management/		
STAKEHOLDER ENGAGEMENT							
GRI 102	102-40	List of stakeholder groups	List of stakeholder groups engaged in the organization	GR 14	Read more: www.valmet.com/sustainability/sustainability-at-valmet/sustainability-management/stakeholders/		
GRI 102	102-41	Collective bargaining agreements	Percentage of total employees covered by collective bargaining agreements	GR 14, FS 13			x
GRI 102	102-42	Identifying and selecting stakeholders	Identifying and selecting stakeholders	GR 14			
GRI 102	102-43	Approach to stakeholder engagement	Organization's approach to stakeholder engagement	GR 14–15			
GRI 102	102-44	Key topics and concerns raised	Key topics and concerns raised through stakeholder engagement	GR 15			

GENERAL DISCLOSURES							
GRI STANDARD	DISCLOSURE NUMBER	DISCLOSURE TITLE	GENERAL DISCLOSURES	LOCATION	COMMENTS	OMISSIONS	ASSURANCE
REPORTING PRACTICE							
GRI 102	102-45	Entities included in the consolidated financial statements	Entities included in the organization's consolidated financial statements	FS 80–81	All Group companies are included in Valmet's sustainability reporting.		
GRI 102	102-46	Defining report content and topic boundaries	Process of defining the report content	GR 15–16			
GRI 102	102-47	List of material topics	Material topics identified	GR 15–16 FS 10–11			
GRI 102	102-48	Restatements of information	Restatements of information provided in previous reports	See comments	Some of the 2021 data has been restated based on improvements in data quality.		
GRI 102	102-49	Changes in reporting	Significant changes from previous reporting periods in the scope and topic boundaries	See comments	No significant changes		
GRI 102	102-50	Reporting period	Reporting period	See comments	January 1, 2021–December 31, 2021		
GRI 102	102-51	Date of the most recent report	Date of the most recent previous report	See comments	Valmet's Annual Review describing the company's operations and sustainability in 2020 and a GRI supplement for 2020 were published on February 23, 2021.		
GRI 102	102-52	Reporting cycle	Reporting cycle	See comments	Annual		
GRI 102	102-53	Contact point for questions regarding the report	Contact point for questions	GR 46			
GRI 102	102-54	Claims of reporting in accordance with the GRI Standards		GR 2	Valmet's sustainability reporting in 2021 has been prepared in accordance with the GRI Standards (2016, 2018 and 2020): Core option.		
GRI 102	102-55	GRI content index	GRI content index	GR 4–10			
GRI 102	102-56	External assurance	Organization's policy regarding external assurance	Independent Limited Assurance report: GR 43–44	The GRI content index indicates the general and topic-specific disclosures that have been externally assured.		

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SPECIFIC STANDARD DISCLOSURES						
GRI STANDARD	DISCLOSURE NUMBER	DISCLOSURE TITLE	LOCATION	COMMENTS	OMISSIONS	ASSURANCE
GRI 200 ECONOMIC STANDARD SERIES						
ECONOMIC PERFORMANCE						
GRI 103	103-1	Explanation of the material topic and its boundary	President and CEO review: AR 2–3, Strategy and financial targets: AR 37–41, GR 15–16	At Valmet, economic responsibility refers to creating long-term economic benefits for our stakeholders. Financial reporting and planning are based on the group management system, and development is monitored through financial reporting.		
GRI 103	103-2	The management approach and its components	GR 16			
GRI 103	103-3	Evaluation of the management approach	AR 2–3, 37–40			
GRI 201	201-1	Direct economic value generated and distributed	AR 73–74	Taxes are reported by the 10 largest countries to give a comprehensive overview of Valmet's tax footprint globally. Read more about Valmet's value creation: AR 12–13.		x
ANTI-CORRUPTION						
GRI 103	103-1	Explanation of the material topic and its boundary	GR 22			
GRI 103	103-2	The management approach and its components	GR 22			
GRI 103	103-3	Evaluation of the management approach	GR 22			
GRI 205	205-1	Operations assessed for risks related to corruption	GR 23 FS 11, 16	Read more: www.valmet.com/riskmanagement		x
VALMET-SPECIFIC TOPIC: PURCHASES						
GRI 103	103-1	Explanation of the material topic and its boundary	GR 17			
GRI 103	103-2	The management approach and its components	GR 17			
GRI 103	103-3	Evaluation of the management approach	GR 17			
	Own indicator	Purchases by 10 largests countries	AR 61			x
GRI 300 ENVIRONMENT STANDARD SERIES						
ENERGY						
GRI 103	103-1	Explanation of the material topic and its boundary	GR 18–19			
GRI 103	103-2	The management approach and its components	GR 18			
GRI 103	103-3	Evaluation of the management approach	GR 19			
GRI 302	302-1	Energy consumption within the organization	GR 23			x
GRI 302	302-3	Energy intensity	GR 23			x
WATER						
GRI 103	103-1	Explanation of the material topic and its boundary	GR 18–19			
GRI 103	103-2	The management approach and its components	GR 18			
GRI 103	103-3	Evaluation of the management approach	GR 19			
GRI 303	303-1	Interactions with water as a shared resource	GR 24			x
GRI 303	303-2	Management of water discharge-related impacts		Valmet follows local discharge permits and requirements. Valmet's water withdrawal from water-stressed regions is not significant and is not material.		x
GRI 303	303-3	Water withdrawal by source	GR 24			x

SPECIFIC STANDARD DISCLOSURES						
GRI STANDARD	DISCLOSURE NUMBER	DISCLOSURE TITLE	LOCATION	COMMENTS	OMISSIONS	ASSURANCE
EMISSIONS						
GRI 103	103-1	Explanation of the material topic and its boundary	GR 18–19			
GRI 103	103-2	The management approach and its components	GR 18			
GRI 103	103-3	Evaluation of the management approach	GR 19			
GRI 305	305-1	Direct (Scope 1) GHG emissions	GR 25			x
GRI 305	305-2	Energy indirect (Scope 2) GHG emissions	GR 25			x
GRI 305	305-3	Other indirect (Scope 3) GHG emissions	GR 25			x
GRI 305	305-4	GHG emissions intensity	GR 25			x
GRI 305	305-7	Nitrogen oxides (NO_X), sulfur oxides (SO_X), and other significant air emissions	GR 26			x
WASTE						
GRI 103	103-1	Explanation of the material topic and its boundary	GR 18–19			
GRI 103	103-2	The management approach and its components	GR 19			
GRI 103	103-3	Evaluation of the management approach	GR 19			
GRI 306	306-1	Waste generation and significant waste-related impacts	GR 26–27			x
GRI 306	306-2	Management of significant waste-related impacts	GR 26–27			x
GRI 306	306-3	Waste generated	GR 28			x
GRI 306	306-4	Waste diverted from disposal	GR 28			x
GRI 306	306-5	Waste diverted to disposal	GR 28			x
VALMET-SPECIFIC TOPIC: ENVIRONMENTAL IMPACTS OF PRODUCTS AND SERVICES						
GRI 103	103-1	Explanation of the material topic and its boundary	GR 21			
GRI 103	103-2	The management approach and its components	GR 21			
GRI 103	103-3	Evaluation of the management approach	GR 21			
	Own indicator	Environmental impacts of products and services	GR 29	Impacts are calculated per project or solution.		
ENVIRONMENTAL COMPLIANCE						
GRI 103	103-1	Explanation of the material topic and its boundary	GR 18–19			
GRI 103	103-2	The management approach and its components	GR 18			
GRI 103	103-3	Evaluation of the management approach	GR 19			
GRI 307	307-1	Non-compliance with environmental laws and regulations	GR 29			x
	Own indicator	Environmental expenditure	GR 18			

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SPECIFIC STANDARD DISCLOSURES						
GRI STANDARD	DISCLOSURE NUMBER	DISCLOSURE TITLE	LOCATION	COMMENTS	OMISSIONS	ASSURANCE
GRI 400 SOCIAL STANDARD SERIES						
EMPLOYMENT						
GRI 103	103-1	Explanation of the material topic and its boundary	GR 20			
GRI 103	103-2	The management approach and its components	GR 20			
GRI 103	103-3	Evaluation of the management approach	GR 20			
GRI 401	401-1	New employee hires and employee turnover	GR 30–31			x
OCCUPATIONAL HEALTH AND SAFETY						
GRI 103	103-1	Explanation of the material topic and its boundary	GR 18–19			
GRI 103	103-2	The management approach and its components	GR 18			
GRI 103	103-3	Evaluation of the management approach	GR 19			
GRI 403	403-1	Occupational health and safety management system	AR 51, 65–66			x
GRI 403	403-2	Hazard identification, risk assessment, and incident investigation	GR 32			x
GRI 403	403-3	Occupational health services	GR 32	Data privacy, including confidentiality of personal health-related information, is strictly managed in Valmet. The European Union's General Data Protection Regulation (GDPR) lays the foundation for our global Privacy Program.		x
GRI 403	403-4	Worker participation, consultation, and communication on occupational health and safety	GR 32			x
GRI 403	403-5	Worker occupational health and safety training	GR 33			x
GRI 403	403-6	Promotion of worker health	GR 33, AR 64–67	See comment on 403-3 above.		x
GRI 403	403-7	Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	GR 33, AR 51, 60, 64–67			x
GRI 403	403-8	Workers covered by an occupational health and safety management system	GR 34, AR 66			x
GRI 403	403-9	Work-related injuries	GR 35–38			x
GRI 403	403-10	Work-related ill health	GR 39–40		Our reporting systems do not currently enable tracking of work-related ill health for workers who are not employees.	x
TRAINING AND EDUCATION						
GRI 103	103-1	Explanation of the material topic and its boundary	GR 20			
GRI 103	103-2	The management approach and its components	GR 20			
GRI 103	103-3	Evaluation of the management approach	GR 20			
GRI 404	404-1	Average hours of training per year per employee	GR 40		Training hours are not reported by employee category.	x
GRI 404	404-2	Programs for upgrading employee skills and transition assistance programs	GR 40, AR 68–71			x
GRI 404	404-3	Percentage of employees receiving regular performance and career development reviews	GR 40			x

SPECIFIC STANDARD DISCLOSURES						
GRI STANDARD	DISCLOSURE NUMBER	DISCLOSURE TITLE	LOCATION	COMMENTS	OMISSIONS	ASSURANCE
DIVERSITY AND EQUAL OPPORTUNITY						
GRI 103	103-1	Explanation of the material topic and its boundary	GR 20			
GRI 103	103-2	The management approach and its components	GR 20			
GRI 103	103-3	Evaluation of the management approach	GR 20			
GRI 405	405-1	Diversity of governance bodies and employees	GR 41–42			x
FORCED AND COMPULSORY LABOR						
GRI 103	103-1	Explanation of the material topic and its boundary	GR 17			
GRI 103	103-2	The management approach and its components	GR 17			
GRI 103	103-3	Evaluation of the management approach	GR 17			
GRI 409	409-1	Operations and suppliers at significant risk for incidents of forced or compulsory labor	Identified risk countries GR 42, Measures taken AR 60–63			x
SUPPLIER SOCIAL ASSESSMENT						
GRI 103	103-1	Explanation of the material topic and its boundary	GR 17, AR 40			
GRI 103	103-2	The management approach and its components	GR 17			
GRI 103	103-3	Evaluation of the management approach	GR 17			
GRI 414	414-1	New suppliers that were screened using social criteria	GR 42, AR 60–63			x
CUSTOMER HEALTH AND SAFETY						
GRI 103	103-1	Explanation of the material topic and its boundary	GR 21			
GRI 103	103-2	The management approach and its components	GR 21			
GRI 103	103-3	Evaluation of the management approach	GR 21			
GRI 416	416-1	Assessment of the health and safety impacts of product and service categories	GR 42			x
SOCIOECONOMIC COMPLIANCE						
GRI 103	103-1	Explanation of the material topic and its boundary	GR 21			
GRI 103	103-2	The management approach and its components	GR 21			
GRI 103	103-3	Evaluation of the management approach	GR 21			
GRI 419	419-1	Non-compliance with laws and regulations in the social and economic area	GR 42			x

Information on general disclosures

This section provides information about the general disclosures that are not reported in the Annual Review or the GRI content index.

Breakdown of employees by contract type, employment type, region and gender (GRI 102-8)

GRI 102-8: Total number of employees by employment contract and gender

	Female	Male	Total
Regular	2,529 (2,523)	10,344 (10,229)	12,874 (12,752)
Fixed-Term	414 (385)	958 (909)	1,372 (1,294)
Total	**2,943 (2,908)**	**11,302 (11,138)**	**14,246 (14,046)**

GRI 102-8: Total number of permanent employees by employment type and gender

	Female	Male	Total
Full-time	2,427 (2,424)	10,227 (10,114)	12,655 (12,538)
Part-time	102 (99)	117 (115)	219 (214)
Total	**2,529 (2,523)**	**10,344 (10,229)**	**12,874 (12,752)**

GRI 102-8: Total workforce by region and employment contract

	Regular	Fixed term	Total
North America	1,500 (1,541)	0 (1)	1,500 (1,542)
South America	593 (533)	11 (9)	604 (542)
EMEA	8,636 (8,581)	660 (621)	9,296 (9,202)
China	1,226 (1,220)	685 (652)	1,911 (1,872)
Asia-Pacific	919 (877)	16 (11)	935 (888)
Total	**12,874 (12,752)**	**1,372 (1,294)**	**14,246 (14,046)**

GRI 102-8: Total workforce by region and gender

	Female	Male	Total
North America	204 (228)	1,296 (1,314)	1,500 (1,542)
South America	118 (100)	486 (442)	604 (542)
EMEA	2,068 (2,040)	7,227 (7,162)	9,296 (9,202)
China	442 (436)	1,469 (1,436)	1,911 (1,872)
Asia-Pacific	111 (104)	824 (784)	935 (888)
Total	**2,943 (2,908)**	**11,302 (11,138)**	**14,246 (14,046)**

Policies and commitments (GRI 102-12)

- Valmet's Anti-Corruption Policy
- Valmet's Code of Conduct
- Valmet's Competition Compliance Guidelines
- Valmet's Drugs and Alcohol Guidelines
- Valmet's Equal Opportunity and Diversity Policy
- Valmet's Global Travel Policy
- Valmet's Health, Safety and Environment Policy
- Valmet's Health, Safety and Environment Committee Guidelines
- Valmet's Human Resources Policy
- Valmet's Human Rights Statement
- Valmet's Intellectual Property Rights (IPR) Policy
- Valmet's Minimum Safety Standards
- Valmet's Social Committee Guideline
- Valmet's Sustainable Supply Chain Policy
- Valmet's Quality Policy
- Valmet is a signatory of the UN Global Compact (UNGC)
- Valmet supports and is commited to the UN Sustainable Development Goals
- Valmet supports and promotes the principles set by the United Nations Universal Declaration of Human Rights, the UN Guiding Principles on Business and Human Rights, the Declaration on Fundamental Principles and Rights at Work of the International Labour Organization (ILO)
- Valmet promotes and encourages compliance with international standards for health and safety, environmental and quality management, such as ISO 14001:2015, ISO 45001:2018 and ISO 9001:2015
- Valmet supports and promotes the principles set by the OECD's Guidelines for Multinational Enterprises

Memberships in associations (GRI 102-13)

Valmet's key memberships by country or region are listed below. Valmet is also involved in the work of several national associations of engineers, technical and R&D networks, standardization institutes, chambers of commerce, and business forums.

Finland

Federation of Finnish Technology Industries
Confederation of Finnish Industries (EK)
Finnish Marine Industries
Bioenergy Association of Finland
Finnish Energy
Finnish Forest Industries
Finnish Water Utilities Association (FIWA)
Association of Finnish Foundry Product Industries
WEC Finland
Foundation for the Global Compact
Finnish Business & Society (FiBS)

Sweden

Confederation of Swedish Enterprise (Svenskt Näringsliv)
Värme och Kraftföreningen (VoK)
Swedenergy (Energiföretagen Sverige)
Swedish Waste Management (Avfall Sverige)

EU

Energy Technologies Europe (ETE)
Bioenergy Europe
Confederation of European Paper Industries (CEPI)
Exhaust Gas Cleaning Systems Association (EGCSA)
European Federation of Corrugated Board Manufacturers (FEFCO)
Paper Machine Clothing Association (PCA)

North America

Energy Recovery Council (ERC)
European Disposables and Nonwovens Association (EDANA)
Council of Industrial Boiler Owners (CIBO)
American Forest and Paper Association (AF&PA)
Association for the Suppliers to the Paper Industry (ASPI)

South America

Asociación de Fabricantes de Celulosa y Papel (AFCP)
Brazilian Machinery and Equipment Association (ABIMAQ)
Corporación Chilena de la Madera (CORMA)

Asia-Pacific

Vietnam Pulp and Paper Association
Korea Paper Association (KPA)

China

China National Household Paper Industry Association
China Paper Association

Sustainability risk management (GRI 102-15)

Valmet's business and competition environment is subject to a wide range of risks (threats and opportunities) due to the company's broad scope of global operations and its technology and industry diversity. In this context, the role of Valmet's risk management is to support the achievement of Valmet's strategic targets and business objectives and the continuity of operations.

Valmet has a systematic method for regularly assessing the probability and impact of threats and opportunities related to sustainability. The topics include health and safety, environment and climate, human rights and labor rights, and ethical business practices both in our own operations and our supply chain.

Management of sustainability and climate-related risks is integrated into the multidisciplinary, Groupwide risk management process at Valmet. Each Valmet Business Line annually assesses the probability and impact of economic, environmental, and social risks and defines the need and priority of the actions to remove, mitigate, minimize, retain, or utilize risks by using Valmet's risk map.

In 2021, Valmet analysed the potential long-term climate-related physical and transitional risks and their financial impact on its operations and business environment with two different climate scenarios to support Groupwide risk management and strategy, and the capability to adapt to and mitigate climate change. Valmet discloses information about climate-related financial risks in line with the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD) also in its Financial Statements 2021 and Information for Investors. The full TCFD report is available on Valmet's website.

GRI 102-17: Reported cases of potential Code of Conduct violations

	Number of cases	Cases closed	Open cases as of Dec 31, 2021
Cases reported via external reporting channel	21 (23)	11 (5)	10
Cases reported via other channels	15 (17)	11 (11)	4
Total	**36 (40)**	**22 (16)**	**14**

GRI 102-17: Cases closed by Valmet Code of Conduct category

	Number of cases
Respectful work environment	10
Intellectual property and company assets	3
Integrity	2
Compliance with laws and regulations	3
Equal opportunities, diversity and inclusion	2
Product and service quality	2
Total	**22**

Mechanisms for advice and concerns about ethics (GRI 102-17)

Valmet encourages our employees and stakeholders to speak up and voice concerns about possible violations of Valmet's Code of Conduct, unethical business behavior or other misconduct. Valmet employees are encouraged to report suspected misconduct to their own supervisors, the Human Resources function, other management or if necessary, directly to Legal Affairs and the Internal Audit function.

Valmet offers an anonymous, web-based TrustLine channel for reporting suspected misconduct of our Code of Conduct. It provides Valmet employees and other stakeholders with the possibility to report anonymously, confidentially and in their native language. This reporting channel is maintained by an external party and is designed to guarantee anonymity. The reporting system and the process of handling the reports are managed by the Legal Affairs and the Internal Audit functions. Reported cases are investigated in accordance with Valmet's Compliance Reporting Guideline, which was updated in 2021. Valmet does not tolerate retaliation against any person who reports suspected violations in good faith or assists in investigations.

In 2021, 36 concerns or allegations of potential Code of Conduct violations were reported through the external reporting channel or other channels such as direct reporting to local HR, the Legal function or to Internal Audit. A total of 14 cases were closed. Most of the reported cases were related to respectful work environment.

Valmet provides Code of Conduct training and communications to our employees on all our available channels to inform them of the company's ethical expectations and protect the business. In 2021, 91 percent of active employees completed the updated Code of Conduct e-learning course.

Stakeholder engagement (GRI 102-40, GRI 102-41, GRI 102-42, GRI 102-43, GRI 102-44)

Valmet's stakeholders are existing and potential customers, existing and potential employees, suppliers and subcontractors, shareholders and investors, media, non-governmental organizations, the authorities and local communities, as well as research institutes, universities, colleges and vocational schools. Entities or individuals identified as stakeholders can reasonably be expected to be significantly affected by Valmet's activities, products and/or services, and their actions can reasonably be expected to affect Valmet's ability to successfully implement its strategies and achieve its objectives.

Employees covered by collective bargaining agreements (GRI 102-41)

Valmet supports its employees' right to freedom of association and collective bargaining. We recognize and actively engage with employee representation bodies such as the European Works Council, which has representatives from Valmet countries in the European Union.

Overall, 71 percent of Valmet employees are covered by collective bargaining agreements. Participation in collective bargaining agreements varies significantly between regions, with the highest participation in EMEA (87%), South America (83%) and China (67%), and the lowest in North America (9%) and Asia-Pacific (3%). This reflects common practice in these regions.

Stakeholder dialogue

Valmet promotes its own and its stakeholders' operations through an active stakeholder dialogue on sustainability themes such as the development and implementation of energy and climate, environment, research and innovation, digitalization policies and legislation, and research and technology development in environmental technology. Valmet develops low-emission and resource-efficient technology and has a long tradition of supporting e.g. universities in researching sustainable production technologies and finding new solutions. We also share our knowledge and raise awareness of eco-efficient products. In 2021, we also conducted a sustainability survey to gather opinions from our stakeholders.

We maintain dialogue with our customers through regular meetings and other direct contact such as seminars, fairs, and customer satisfaction surveys, and through specific industry organizations.

We conduct annual and mid-year review discussions with our employees in which we emphasize open and active dialogue. We also conduct regular engagement surveys to measure how engaged we are as a company. The survey gives everyone at Valmet the opportunity to be part of the discussion and influence how we move the company forward. The survey is run every second year, and the results are used to develop the company over a two-year period.

We meet our suppliers regularly as part of our supplier relationship program. During 2021, we lauched a new program, the Supplier HSE Day, to drive sharing good HSE practices with Valmet's suppliers. The program also supports us in achieving the common goal of zero harm in our suppliers' workshops. In 2021, Valmet arranged Area-spesific Supplier HSE Day event in China, as well as other events within different Business Lines and spesific customer projects. In 2021, Valmet also arranged a Supplier Innovation Day in India. The event aimed to promote the innovation capability of our suppliers and invite their ideas combined with their knowledge, expertise, and technology to provide more sustainable and cost-competitive solutions. The Supplier Innovation Day is part of Valmet's Supplier Innovation process implementation. In 2021, Valmet continued to implement the global sustainability engagement program for selected key suppliers in North America and South America, in addition to ongoing sustainbaility engagement programs in China, Asia-Pacific and EMEA. We also regularly audit and assess our global suppliers.

Valmet engages shareholders, investors, and analysts in dialogue to ensure that the markets have correct and sufficient information for determining the value of Valmet shares. The financial community's interest in sustainability issues and responsible (ESG) investing continued to increase in 2021. In particular, there was increasing interest in sustainable finance, including EU taxonomy and TCFD recommendations related reporting. In 2021, we organized a record amount of meetings with our financial stakeholders by introducing our role and progress in the transition to a carbon neutral economy and continued to develop our ESG equity story. The dialogue includes financial statements, interim reviews, the company website, stock exchange releases, press releases, investor meetings, seminars, webcasts, results news conferences, site visits and general meetings. Valmet is also active on social media – for example, on Twitter and LinkedIn, and publishes videos for the investor community. In 2021, Valmet's Investor Relations team participated in 32 roadshows and engaged with investors and analysts approximately 260 times through various channels such as conference calls, roadshows and in-person meetings.

Valmet meets with various media representatives through regular meetings and interviews, and direct contact at fairs, seminars, and other events. Valmet shares timely information about its operations through press and trade press releases, the company website, several publications, and social media channels. In research and development, Valmet collaborates

closely with its customers to collect information on their product development needs and to innovate new solutions. We also engage in dialogue with research institutes, as well as universities and vocational schools, through joint development projects and specific industry organizations.

Continuous improvement through active feedback gathering

In addition to the feedback gathered through regular business relationships and other forms of stakeholder dialogue, Valmet actively collects feedback from its stakeholders with specific surveys. For instance, suppliers, investors and customers are systematically asked for feedback at various events.

Valmet has an external reporting portal for its stakeholders for collecting feedback on and managing events related to health, safety, environment (HSE) and continuous improvement (CI) in all Valmet operations. The tool is also used for collecting innovation ideas for R&D purposes. In 2021, we started collecting ideas regarding the climate program and how to reduce CO_2 emissions in our own operations, in the supply chain or during the use phase of our technologies.

Internally, we use employee surveys to collect feedback from employees. We also participate in externally conducted surveys assessing Valmet's reputation. In addition, we ask for regular feedback from our customers regarding how Valmet is perceived in the market, how its products and services meet customer needs and expectations, the role sustainability plays in customer perception and expectations, and how Valmet can improve its customer relationships. By reporting to selected third-party sustainability ratings and assessments, Valmet seeks to help its stakeholders assess its sustainability performance. The rankings also serve as a management tool in helping to continuously enhance our sustainability performance and define areas for improvement.

Main topics highlighted in 2021

In 2021, we conducted an online survey as part of our sustainability agenda renewal to gather opinions and point of views from Valmet's stakeholders. The most significant topics in 2021 concerned climate change and reducing CO_2 emissions, energy, water, chemical and raw material efficiency of Valmet's technology in customers use, and the health, safety and wellbeing of employees. Valmet received excellent feedback on its general commitment to sustainability, as well as the introduction of the new climate program.

Most stakeholder survey respondents assessed Valmet's sustainability performance as excellent or very good. We found new ways of engaging with our stakeholder groups e.g. in relation to the climate program, and made solid progress in our stakeholder engagement actions in 2021.

Reported topics, topic boundaries and management approach (GRI 102-46, GRI 102-47, GRI 103-1)

Reported topics and topic boundaries

In accordance with the GRI 101 Foundation standard, the principles for defining report content were applied in assessing material topics and boundaries. A list of material topics can be found on the GRI content index in this report on pages 4–10. The process was initially conducted in 2013 and was last updated in 2018. It included a stakeholder survey, including customers, employees, and institutional investors and owners; interviews with key customers; and a benchmark study. The current business environment and the most important market drivers affecting the industries in which Valmet and its customers operate were also reviewed as part of the process of building a comprehensive understanding of all potential sustainability topics.

The topics were assessed on the basis of their importance to Valmet and its stakeholders at an internal workshop with key experts and management. As a result of the process, we defined five sustainability focus areas, covering the most material sustainability topics for Valmet.

Sustainability agenda

The topics included in Valmet's 2021 reporting are based on the above process and create the basis for Valmet's Sustainability agenda, called Sustainability360º. The agenda was initially defined in 2014 and is renewed every three years.

The Sustainability360º agenda focuses on five core areas of our operations: Sustainable supply chain; Health, safety and environment; People and performance; Sustainable solutions; and Corporate citizenship. The agenda includes detailed actions and targets for each sustainability focus area.

The material topics are grouped according to the five focus areas, with corresponding goals, actions and KPIs. The topics and indicators related to each focus area are presented in the following tables, which also define the topic boundaries.

In 2021, we completed the actions defined in the current action plan for 2019–2021. More information about each focus area and specific action plans, targets and achievements can be found in the sustainability sections of the Annual Review (AR 52–75).

During 2021, we also renewed Valmet's Sustainability360° agenda; identified new focus areas, and updated the material topics for the whole value chain. The new agenda was ap-

proved by Valmet's Executive team in late 2021, and it will be introduced with three-year action plans in early 2022.

Management approach

Sustainability is an integral part of Valmet's strategy process and related Must-Wins. It is integrated in our processes through the comprehensive Sustainability360° agenda and related climate program – Forward to a carbon neutral future.

Valmet's Sustainability360° agenda is aligned with the Paris Climate Agreement's 1.5-degree pathway and the United Nations Sustainable Development Goals, and it is executed through concrete three-year action plans.

The climate program was introduced in 2021. It continues our comprehensive sustainability work and includes ambitious CO_2 emission reduction targets and concrete actions for the whole value chain, including the supply chain, our own operations, and customers' use of our technologies. The climate program's targets have been approved by the Science Based Targets initiative.

The Board of Directors of Valmet has oversight of sustainability and climate-related matters, and they sign off the disclosure of non-financial information, which is included into Valmet's Financial Statements 2021 and Information for Investors. The President and CEO oversees the progress of Valmet's targets set in Valmet's Sustainability Agenda and Climate Program.

Valmet's Executive Team determines and monitors Valmet's Sustainability Agenda and targets, as well as all related policies. Valmet's sustainability performance is reviewed annually by the Executive Team. Valmet's Senior Vice President for Marketing, Communications, Sustainability and Corporate Relations is responsible for sustainability at Valmet. She is also the member of Valmet's Executive Team and reports to the President and CEO. She also is the Chair of Valmet's climate program steering team, including another member of the Executive Team, the Head of Sustainability and the program part owners: the Vice Presidents of HSE, R&D and Procurement, and other key persons. The climate program steering team has the ownership of the climate program, following its targets' progress and providing status updates and guidance on governance and content quarterly. The progress of Valmet's climate program is reviewed biannually by the Executive Team.

Valmet's Sustainability team is part of the Marketing, Communications, Sustainability and Corporate Relations function. The Sustainability team is responsible for coordinating and developing sustainability and related processes at the Valmet level, and manages the Groupwide Sustainability Agenda and the initiatives within it. It also coordinates the reporting and third-party assurance of sustainability data in accordance with GRI Standards, engages with stakeholders, and communicates sustainability issues to internal and external stakeholders.

Our Business Lines and Area organizations are responsible for ensuring that all Groupwide initiatives are implemented to meet Valmet's sustainability goals. They are responsible for reporting sustainability data to the Group Head Office and ensuring the accuracy of the data.

Valmet ties selected sustainability topics such as health and safety and sustainable supply chain KPIs to remuneration. Safety targets are part of team performance targets in bonus plans for selected employee groups and top management. Individual performance targets may also include targets for emissions reductions or other sustainability-related topics. Sustainable supply chain targets are part of selected groups' performance targets in Valmet's global procurement.

The management approach for the selected GRI topics is described in more detail in the following tables.

Sustainable supply chain

Management approach	We constantly work to improve the transparency of our value chain to ensure responsible purchasing practices and to mitigate any risks to us or our stakeholders related to potential violations in such practices. Realization of such risks could impact Valmet's financial position and/or reputation. Through comprehensive supply chain management, we also aim to minimize the environmental and social impacts of our value chain.
Reported topics and indicators	Emissions: GRI 305-3 (categories 1, 4 and 9) Forced or compulsory labor: GRI 409-1 Supplier social assessment: GRI 414-1 Material Valmet Topic: Purchases by ten largest countries
Goals and targets	• Develop sustainable procurement practices globally – 100 percent of new direct suppliers go through supplier approval process – 40 supplier sustainability audits per year – Reduce supply chain CO_2 emissions by 20 percent by 2030 • Support selected key suppliers to meet the level of sustainability expected by Valmet – Engage 100 percent of selected suppliers with supplier sustainability engagement program
Responsibilities	The Sustainability function develops and coordinates Valmet's Sustainability Agenda within the company. The Procurement function manages purchases and is responsible for ensuring that all purchasing is done sustainably and cost-effectively. The initiatives under the "Sustainable supply chain" focus area are jointly coordinated by the Sustainability and Group, Business Line and Area procurement functions. • The Senior Vice President for Marketing, Communications, Sustainability and Corporate Relations is responsible for driving Valmet's brand and marketing performance, internal and external communications, sustainability, and corporate relations; she is a member of the Valmet Executive Team and reports to the CEO. • The Head of Sustainability is responsible for sustainability at corporate level and reports to the SVP of Marketing, Communications, Sustainability and Corporate Relations. • The Senior Vice President for Human Resources and Operational Development is responsible for Human Resources at Valmet and driving the development of Valmet's Procurement, Supply Chain, R&D, Sales Management, Project Management, Quality and HSE operations; she is a member of Valmet's Executive Team and reports to the President and CEO. • Valmet's Vice President of procurement is part of Valmet's climate program steering team and is responsible for coordinating CO_2 reduction actions in the supply chain. • The Vice President of Procurement is responsible for coordinating procurement operations across the four Business Lines and five Areas, including the sustainable supply chain process. He reports to the SVP HR and Operational Development.
Specific actions	Read more about the "Sustainable supply chain" focus area on pages 60–64 of the Annual Review. The Sustainable supply chain progress table and key achievements in 2021 can be found on the Sustainability 360º agenda progress report on page 58. The action plan for 2019–2021 can be found on Valmet's website.
Evaluation of management approach	We continuously assess the impact of our processes and tools concerning our sustainable supply chain activities. We have a systematic method for supplier sustainability risk assessment that enables assessment of suppliers by country of origin and purchasing category. The aim is to assess the potential negative indirect impacts and risks related to human rights, labor practices, ethical business practices, environmental performance, and health and safety. Based on the supplier sustainability risk assessment, we may request that our suppliers self-assess their sustainability performance and management. The self-assessment may lead to a supplier audit conducted by an independent third party and Valmet. With the self-assessments and audits, we aim to enhance risk management and ensure compliance with the policy requirements.
Topic boundaries	**Within the organization (entire Group):** Valmet's Procurement organization manages purchases and is responsible for ensuring that all purchasing is done sustainably and cost-effectively. **Outside the organization:** Valmet purchases components, products, materials, and services from some 17,000 active suppliers in more than 50 countries. Special attention is paid to assessing business ethics and legal compliance, human and labor rights, health and safety, and environmental issues in risk countries. Valmet's strategic target is to increase procurement close to customer projects and its own operations. All indirect purchases supporting Valmet's operations are procured locally. The ten largest countries in terms of purchases (EUR million) are Finland, China, Sweden, the USA, Germany, Poland, Brazil, Canada, Italy and Denmark. China, India, Indonesia, and Thailand are defined as having greater potential for negative human rights impacts than the other countries from which Valmet purchases goods and services.

Health, safety and environment (HSE)

Management approach

We are committed to protecting the health, safety and environment (HSE) of our people, partners, customers and the communities where we operate. Since we spend about a third of our time at work, the quality of our working lives is an important topic for our overall wellbeing. Our people, and the external workers in our operations, are exposed to potential health and safety hazards at work in our workshops, in our offices, during business travel and when working at our customers' construction sites, mills and plants. The main risks of occupational injury and illness are associated with the unexpected start-up of machinery, use of tools and equipment, mechanical lifting, working at height or in confined spaces, manual handling, hot work, exposure to hazardous substances and radiation, electrical work, road travel, exposure to infectious diseases, and the social and organizational work environment.

Our operations also impact their local environment and contribute to climate change, as well as other global environmental challenges. The main aspects are direct and indirect energy consumption and associated CO_2 emissions, water consumption, waste production, emissions into the air, discharges of effluent, use of hazardous substances, material consumption and noise. Based on life cycle analysis (LCA) and market data on the customer use phase of Valmet's technology, we estimate that around one percent of the environmental impact of Valmet's entire value chain is emitted from our own locations.

Based on the above impacts, we intend to provide safe and healthy workplaces for all and to design and operate our facilities to promote the sustainable use of resources and prevent pollution. Our approach aims to ensure appropriate systems, competence and behaviors are in place to identify and control hazards and impacts before they cause harm. Compliance with regulatory obligations, internal standards and customer requirements is the basis for all operations. We have a continuous improvement approach and work proactively through strategic objectives and targets that are cascaded through annual improvement plans to drive environmental impact reduction, and to secure healthy and safe operations.

Everyone is expected to take responsibility for HSE as defined in the Valmet Manager and Employee roles. We integrate sound HSE management practices in all aspects of our business and promote best HSE practice with our customers, suppliers and partners. Constant emphasis is placed on risk management, prevention and learning. We ensure worker participation and engage other interested parties in active and collaborative dialogue. We monitor and openly communicate our HSE performance to enable the continuous development of our approach.

We focus on:

- Ensuring risk-based HSE management in all operations: We ensure processes for effective HSE management are in place wherever we operate, with a focus on defining and implementing global standards and best practice. Our main operations are certified according to the ISO 14001:2015 (environmental), ISO 45001:2018 (health and safety) and ISO 9001:2015 (quality) management standards.
- Continuously improving safety performance: We systematically enhance leadership, engagement, and mindsets to drive our safety culture forward. We implement preventive programs.
- Minimizing the environmental impact of our operations and products: We continuously develop our operational footprint, our supply chain, and the solutions we provide to our customers to improve environmental performance across the value chain. Our climate program includes ambitious targets and concrete actions supporting the transition to a carbon neutral future by reducing CO_2 emissions from own operations by 80 percent by 2030. We invested 20.2 million in 2021 in environmental management and improvements.
- Promoting health and wellbeing: We support wellbeing at work through five evidence-based action areas – connect, be active, take notice, keep learning, and give – in local health promotion activities. Our location-based HSE and social committees ensure we have programs in place.

Reported topics and indicators

Energy: GRI 302-1, GRI 302-3
Water and effluents: GRI 303-1 (2018), GRI 303-2 (2018), GRI 303-3 (2018)
Emissions: GRI 305-1, GRI 305-2, GRI 305-3 (category 6) , GRI 305-4, GRI 305-7
Waste: GRI 306-1 (2020), GRI 306-2 (2020), GRI 306-3 (2020), GRI 306-4 (2020), GRI 306-5 (2020)
Environmental compliance: GRI 307-1
Occupational health and safety: GRI 403-1 (2018); GRI 403-2 (2018); GRI 403-3 (2018); GRI 403-4 (2018); GRI 403-5 (2018); GRI 403-6 (2018); GRI 403-7 (2018); GRI 403-8 (2018); GRI 403-9 (2018); GRI 403-10 (2018).

Goals and targets

We pursue the long-term goal of zero harm to people and the environment by investing in a safety culture and effective HSE processes and practices, improving energy efficiency and reducing CO_2 emissions, and collaborating with customers and partners to improve HSE results. Key performance indicators and targets for 2025 and 2030 are set for specific HSE areas supporting these goals: See the AR on pages 56 and 67.

Responsibilities	The HSE function is responsible for continuously improving HSE processes, performance, awareness, and ways to operate. Valmet remuneration is tied to HSE performance. • The Valmet Executive team has overall responsibility for the management and oversight of Valmet's day-to-day business, including HSE aspects and impacts. • The Senior Vice President for Human Resources and Operational Development is responsible for Human Resources at Valmet and driving the development of Valmet's Procurement, Supply Chain, R&D, Sales Management, Project Management, Quality and HSE operations; she is a member of Valmet's Executive Team and reports to the President and CEO. • Valmet's Vice President HSE is responsible for Valmet's HSE standards, procedures, and systems, including reporting processes, as well as for ensuring HSE compliance, driving HSE performance development and leading the global HSE team; she reports to the SVP HR and Operational Development. • Valmet's Vice President HSE is part of Valmet's climate program steering team and is responsible for coordinating CO_2 reduction actions in Valmet's own operations. • The global HSE management team (Valmet's Vice President HSE with the relevant Business Line and Area HSE experts) is a matrix management team responsible for developing common processes, procedures, and tools and for sharing best practices to accelerate improvement across all operations. These experts are the company's serious incident investigators and lead HSE auditors. • Local HSE managers/specialists provide HSE support to the organization, and coordinate and facilitate the development of unit-/location-based HSE activities. • All Valmet managers are responsible for ensuring the health and safety of their employees and for the management and compliance of their operations with applicable HSE regulations and standards. • All Valmet employees are responsible for taking care of their own health and safety and for looking out for the health and safety of others. All employees are accountable for following the company's rules and procedures.
Specific actions	Read more about the "Health, safety and environment" focus area on pages 64–67 of the Annual Review. The Health, safety and environment progress table and key achievements in 2021 can be found in the Sustainability360º agenda progress report on page 59. The action plan for 2019–2021 can be found on Valmet's website. COVID-19 pandemic management and response continued in 2021. The network of global, regional and local incident management teams (IMTs) continued to manage Valmet's response to the pandemic. In addition to active communication, global guidelines and instructions, safe work protocols for locations and customer sites were updated through the year with the aim of protecting everyone.
Evaluation of management approach	We continuously assess the effectiveness of our HSE management processes by monitoring HSE KPIs and non-compliance cases, as well as through regular assessments via engagement, stakeholder, and reputation surveys. Local HSE compliance with internal standards, regulations and customer requirements is audited regularly in daily, weekly, and monthly HSE inspections, periodic evaluations of compliance, inspections by authorities, internal and external management system audits, corporate HSE audits, risk management audits and as an element of corporate internal audits. We also regularly benchmark the approach and performance of our peers and customers for best practices. The results of HSE performance, including highlights and challenges, is consolidated, and necessary actions are planned on a monthly basis in management reviews held in the Executive Team, in Business Line and Area management teams, and down to the department meetings. HSE is annually reviewed by the company's Board of Directors.
Topic boundaries	**Within the organization (entire Group):** Valmet's environmental reporting covers all locations with significant environmental impacts: six foundries, five fabrics production units; 32 service workshops; six pilot facilities; four automation supply centers; and 16 machine assembly and manufacturing units (the locations acquired during 2021 are not included). Locations acquired in 2020 are reported for the first time in 2021. Mill maintenance outsourcing in customer mills is excluded from environmental reporting. Valmet's Health and Safety reporting covers all active employees, except companies acquired in 2021, which will be included in the 2022 reporting. **Outside the organization:** Valmet serves close to 2,000 customer mills and plants globally. Services are provided especially in Europe and North America, which both have a large installed base. Valmet delivers new installations and rebuilds to all its market areas. Valmet includes its external workers' incidents in its reporting.

People and performance

Management approach	We develop an engaged and performance-driven community, and we continuously drive the development of our employees' capabilities globally. Our efforts in capability development focus on ensuring we are operating with the best tools and processes, and offering training opportunities to match our strategic needs. We encourage development throughout the employee's career at Valmet, ensuring our people continuously develop their competences. We believe that success starts with people – strong teams are the foundation of strong performance. We recognize the business benefits of having a diverse workforce, and we aim to create and sustain a work environment that values diversity and provides equal opportunities for everyone.
Reported topics and indicators	Employment: GRI 401-1 Training and education: GRI 404-1, GRI 404-2, GRI 404-3 Diversity and equal opportunity: GRI 405-1
Goals and targets	We boost employee engagement and develop the best talent: Valmet believes that an engaged and performance-driven community is built from within. We use the OurVoice survey to measure engagement, performance excellence and values awareness levels, which are important for growing as a company and building a strong Valmet community. We encourage our people to live our shared values by connecting them to our way forward as a company. We continuously seek ways to enable individual performance and support development. We utilize our global training portfolio to inspire new thinking, bring minds together, and ultimately support growth and drive our strategic initiatives and Must-Wins. We follow a 70–20–10 approach to learning, in which 70 percent occurs through on-the-job learning, 20 percent through learning relationships, and 10 percent through structured learning. We are a responsible employer and promote diversity: We value teamwork as an important part of our organization's success, and emphasize respectful behavior and a safe, healthy, and well-managed working environment in all locations. We set clear expectations for managers and employees through our manager and employee role descriptions, which focus on driving performance, building engagement, supporting development, and living our values. The Valmet community is diverse. We continuously work to build and develop teams from different backgrounds, genders, and cultures. Having a diverse workforce creates a more dynamic work environment and leads to new ideas and more competitive products.
Responsibilities	The Human Resources function defines and guides the processes around talent management, learning and development, compensation and benefits, and people reporting. Remuneration at Valmet is partly tied to sustainability topics. • The Senior Vice President for Human Resources and Operational Development is responsible for Human Resources at Valmet and driving the development of Valmet's Procurement, Supply Chain, R&D, Sales Management, Project Management, Quality and HSE operations; she is a member of Valmet's Executive Team and reports to the President and CEO. • The Vice President, HR Operations is responsible for leading HR operations across all five regions, including corporate functions. • The Director of Compensation and Benefits is responsible for the performance review process. • The Vice President of Talent Management is responsible for processes related to talent attraction and development, including learning programs, talent reviews and successor plans.
Evaluation of management approach	We use regular assessment and reporting tools, including our engagement, stakeholder and reputation surveys, and our anonymous reporting channel to enhance the positive impacts and to avoid, mitigate and remediate any negative impacts on our most material topics.
Specific actions	Read more about the "People and Performance" focus area on pages 68–71 of the Annual Review. The People and Performance progress table and key achievements in 2021 can be found in the Sustainability360º agenda progress report on page 59. The action plan for 2019–2021 can be found on Valmet's website.
Topic boundaries	**Within the organization (entire Group):** Valmet has around 14,200 employees in 36 countries around the world. The largest countries in terms of headcount are Finland, China, Sweden, the USA, and Poland. **Outside the organization:** Valmet's strategic goal is to strengthen its local presence close to customers and growth markets, which is an important consideration when hiring new employees in respective regions such as South America, China, and Asia-Pacific.

Sustainable solutions

Management approach	We provide our customers with sustainable solutions that help to improve environmental and safety performance. Based on life cycle analysis (LCA) and market data of selected product families, we estimate that around 95 percent of the environmental impacts of Valmet's entire value chain are caused when Valmet's solutions are being used for production at customer sites. Choosing resource-efficient production technologies therefore plays a key role in mitigating climate change. We provide our customers with safe, reliable, cost-effective and sustainable solutions that improve environmental and process efficiency and respond to the needs of the changing market environment and legislative requirements. We have created, and are continuously developing, management systems to ensure that the whole value chain works as one for customer success. We have implemented sustainability guidelines and practices in product design and engineering, and we follow product and process safety standards. We offer our customers product life cycle support that ensures the best long-term environmental performance. We educate and encourage our customers to use the products they purchase from us in environmentally responsible and safe ways. We encourage all our personnel to participate in innovation and finding ways to reduce the environmental impact and increase the safety of our products and services. The aim of our research and development work is to create new technologies, products and services that address customer needs and help respond to some of the most important global megatrends: enhancing the efficiency of raw materials, water, and energy, promoting the use of renewable raw materials and reducing emissions.
Reported topics and indicators	Emissions: GRI 305-3 (category 11) Customer health and safety: GRI 416-1 Socio-economic compliance: GRI 419-1 Material Valmet topic: Environmental impacts of products and services
Goals and targets	Valmet's mission is to convert renewable resources into sustainable results. This means that our technology and services will make it possible for our customers to manufacture products sustainably, and for us and our customers to make profits responsibly. We aim to: • Create technologies and services that enhance the use of renewable raw materials, and water and energy efficiency: – Orders from new products and services >25 percent of total orders received until 2021 – Selected fossil-based product parts to be replaced with renewable or recyclable materials – Enable carbon neutral production for all our customers by developing new process technologies and improve the energy efficiency of our current offering by 20 percent by 2030 • Actively promote the sustainability benefits of Valmet's offering to meet customers' needs – Increase the awareness of sustainability benefits of Valmet's offering among customers
Responsibilities	Technology development and product management are managed by the respective technology organizations of the Business Lines, supported by the sales, marketing and engineering functions. • The Senior Vice President for Human Resources and Operational Development is responsible for Human Resources at Valmet and driving the development of Valmet's Procurement, Supply Chain, R&D, Sales Management, Project Management, Quality and HSE operations; she is a member of Valmet's Executive Team and reports to the President and CEO. • The Vice President of Research and Development is responsible for managing Valmet-level R&D functions and is also part of Valmet's climate program steering team and is responsible for coordinating CO_2 reduction actions related to the use phase of Valmet's technologies. He reports to the Senior Vice President for Human Resources and Operational Development. • Each Business Line has a person or persons coordinating its internal R&D within the Business Line. • Each technology unit within the Business Line has technology and/or R&D responsible for product development. • The Valmet R&D Management Team, consisting of technology/R&D responsible for all Business Lines and Areas, leads and coordinates joint technology and R&D activities. • R&D managers are responsible for systematic research and development activities associated with the search for and discovery of new knowledge and expertise required in developing new and existing products, services, processes or technologies.
Evaluation of management approach	The management approach is assessed continuously as part of our operations, and processes are improved accordingly to ensure that the goals that have been set are achieved.
Specific actions	The Sustainable solutions progress table and key achievements in 2021 can be found on the Sustainability360º agenda progress on page 59. The action plan for 2019–2021 can be found on Valmet's website.
Topic boundaries	**Within the organization (entire Group):** Valmet's technology organization is responsible for product development and ensuring that Valmet's solutions meet all applicable environmental and safety requirements. Valmet's sales organizations globally are responsible for ensuring that the solutions we deliver meet customer needs and support their safety and environmental targets. **Outside the organization:** Valmet provides services, automation and process technologies for the pulp, paper and energy industries around the world. The majority of the life cycle environmental impacts arise from the use of Valmet's technologies and services. Valmet delivers new installations and rebuilds in all its market areas.

Corporate citizenship

Management approach	We want to ensure that our operations are globally aligned and socially responsible and sustainably create added value for all our stakeholders.
Reported topics and indicators	Economic performance: GRI 201-1 Anti-corruption: GRI 205-1
Goals and targets	• We ensure our global human rights compliance through a due diligence framework – Conduct three full scope human rights impact assessments with corrective actions and follow-up plans by 2021 • We are a trusted local partner and promote transparent reporting – Maintain our position as an industry leader in sustainability and further develop sustainability reporting – 100 percent of white-collar employees complete the sustainability e-learning course to understand and promote their role in Valmet's sustainability – Collaborate actively with stakeholders
Responsibilities	• The Accounting and Finance function is headed by the CFO. Financial reporting and planning are based on the group management system, and development is monitored through financial reporting. • The Legal function is part of Valmet's Group Finance and is responsible for the legal governance of Valmet and for monitoring the proper and consistent application of and adherence to the rules and principles of the company, such as the Code of Conduct. The Code of Conduct and related policies are regularly reviewed and approved by the Board of Directors and/or the Executive Team. • The Group Risk Management function is part of Valmet's Group Finance, and is responsible for supporting and controlling the implementation of the Enterprise Risk Management Policy and the annual Risk Management Program, as well as for developing the common processes, practices, instructions and tools to be enforced throughout Valmet. • The Internal Audit function acts as an independent and objective assurance and consulting function for evaluating and improving the effectiveness of risk management, control, and governance processes such as the reporting of misconduct to AC. • The Sustainability function develops and coordinates Valmet's Sustainability Agenda within the company. The Head of Sustainability is responsible for sustainability at corporate level and reports to the SVP of Marketing Communications, Sustainability and Corporate Relations, who is a member of the Valmet Management Team and reports to the President and CEO.
Specific actions	Read more about the "Corporate citizenship" focus area on pages 72–75 of the Annual Review. The Corporate citizenship progress table and key achievements in 2021 can be found on the Sustainability360º agenda progress on page 58. The action plan for 2019–2021 can be found on Valmet's website.
Evaluation of management approach	The management approach is assessed continuously as part of our operations and processes.
Topic boundary	**Within the organization (entire Group):** all Valmet functions and employees work in compliance with our Code of Conduct to ethically create added value for our broad stakeholder base globally. **Outside the organization:** Valmet has truly global operations in around 40 countries and a broad stakeholder base in all market areas. For example, we provide added value to our stakeholders in the form of dividends, jobs and business opportunities. The biggest countries in terms of net sales are China, the USA, Finland, Brazil and Sweden, and in terms of income taxes, Finland, Brazil, China, the USA and Sweden.

Information on specific standard disclosures

This section provides information on the specific standard disclosures which are not reported in the Annual Review or the GRI content index.

Anti-corruption (GRI 205-1)

Group-level risk assessments cover all Valmet's operations. One tool for risk assessments is the FRIME audits, which cover five key units annually and account for about 80 percent of Valmet's turnover within a five-year evaluation cycle. Corruption risks are assessed as part of compliance and crime-related risks, e.g. fraud and misconduct, in the FRIME audits and in Valmet's annual group-level risk assessment process. The most significant corruption risks are related to financial impacts and reputation.

Energy consumption within the organization (GRI 302-1[1], GRI 302-3[2])

GRI 302-1: Fuel consumption

TJ	2021	2020	2019
Renewable fuels	0	0	0
Non-renewable fuels	370	331	304
Total	**370**	**331**	**304**

GRI 302-1: Energy consumption by source

TJ	2021	2020	2019
Electricity	833	799	787
Heating	301	223	227
Steam	20	9	21
Total	**1,154**	**1,031**	**1,035**

GRI 302-1: Energy sold

TJ	2021	2020	2019
Electricity	9	10	10
Heating	3	0	2
Total	**12**	**10**	**12**

GRI 302-1: Total energy consumption

TJ	2021	2020	2019
	1,524	1,362	1,339

GRI 302-3: Energy intensity

	2021	2020	2019
TJ/MEUR Net sales	0.39	0.36	0.38

[1] Consumption is reported based on local invoicing. Standard conversion factors are used in our reporting system. Electricity is consumed in production processes, use of equipment and facility services such as lighting, cooling and heating. Fuel used for internal transportation is comparatively minor and is excluded from fuel consumption amounts. Data from the 2020 acquisitions is included for the first time in 2021 reporting.

[2] The ratio uses energy consumed within the organization from the following types: electricity, heating, cooling, and steam and fuel (excluding fuel for internal transportation).

Interactions with water as a shared resource (GRI 303-1 2018)[1]

Based on life cycle analysis (LCA) and market data of selected product families, we estimate that around 95 percent of the environmental impacts of Valmet's entire value chain, including water impacts, occur when Valmet's solutions are being used for production at customer sites. We design and develop all our technologies for water efficiency. Water efficiency is a key design and performance parameter for our pulp, paper and bio industry customers, and we engage actively with them to minimize their water impacts.

Our own operations account for less than one percent of the total environmental impact of the value chain. Within our own operations, significant amounts of water are used for cooling in our foundry operations and as process water in our pilot machines in our Nordic R&D centers. We have targets for reducing the overall consumption of water in our operations. Environmental impact assessments are completed when establishing new operations and when planning significant changes in existing operations to ensure that water impacts are considered and mitigated. All our new service workshops are located inside managed industrial estates. Valmet follows local discharge permits and requirements. Valmet's water withdrawal from water stress areas is small. Based on an analysis using the WWF Water Risk Filter 6.0, our Pune (India) and Xi'an, Zibo, Tianjin, Waigaoqiao and Changzhou (China) workshops are in geographical areas with high overall basin risk. In basins with very high risk, we do not have any workshops or production facilities. Considering our office facilities, one small office in Gurugram (India) is located in a geographical area with very high overall basin risk.

The remaining 4 percent of our water impact is from the supply chain, and Valmet has a systematic process for engaging with key suppliers to improve their sustainability practises, including enviromental and water management. Read more in our Annual Review on page 62.

Total water withdrawal by source (GRI 303-3)[1]

GRI 303-3: Total water withdrawal by source

1,000 m³	2021	2020	2019
Municipal water	511	471	470
Surface water[2]	1,033	925	957
Other[3]	10	12	14
Total	**1,554**	**1,408**	**1,441**

[1] Municipal and other water utilities are reported by each unit based on invoicing. Surface water consumption is in some cases estimated based on pump capacity. Groundwater and rain water are based on local records and methodologies. Data from the 2020 acquisitions is included for the first time in 2021 reporting.

[2] Data has been restated for 2020 and 2019 due to improvements in calculation methods.

[3] Groundwater, rainwater, water from other organizations.

Greenhouse gas emissions (GRI 305-1, GRI 305-2, GRI 305-3, GRI 305-4)

GRI 305-1 and GRI 305-2: Greenhouse gas (GHG) emissions (Scope 1 and 2)[1]

1,000 tCO_2	2021	2020	2019	Baseline[1]
Scope 1[2]	21.5	19.1	17.6	19.7
Scope 2 (location-based)[3]	73.4	60.5	59.8	
Scope 2 (market-based)[4]	81.2	87.3	85.0	100.3

GRI 305-3: Other indirect greenhouse gas (GHG) emissions (Scope 3)[5]

1,000 tCO_2e	2021	2020	2019
Category 1: CO_2 emissions from purchased goods and services[6]	2,783	2,020	1,938
Category 4: CO_2 emissions from upstream transportation and distribution[7]	102	100	105
Category 6: CO_2 emissions from business travel[8]	18	18	44
Category 9: CO_2 emissions from downstream transportation and distribution[9]	15	15	16
Category 11: CO_2 emissions from use of sold products[10]	100,781	59,491	45,149

GRI 305-4: Greenhouse gas (GHG) emissions intensity (Scope 1 and 2)[11]

	2021	2020	2019	Baseline[1]
1,000 tCO_2/MEUR Net sales	0.026	0.028	0.029	0.032

[1] Only CO_2 is included in the calculation. The amount of Biogenic Scope 1 emissions is 1.6 percent of total Scope 1 emissions in 2021. Baseline 2019 approved by Science Based Target Initiative. Baseline 2019 and net sales for emissions intensity for this baseline are calculated based on Valmet's emissions and net sales data from 2019 and emissions and net sales from acquisitions from 2019 and 2020: 19,700 tCO_2 (Scope 1) and 100,300 tCO_2 (Scope 2, market-based), net sales 3,807 MEUR. The methodology used to calculate emissions is the direct measurement of energy sources consumed based on invoicing at the location level and conversion to CO_2 emissions. Data from the 2020 acquisitions is included for the first time in 2021 reporting.

[2] Scope 1 emissions are based on default CO_2 emission factors for combustion from the "2006 ICPP Guidelines for National Greenhouse Gas Inventories, Volume 2 Energy". The 2019 baseline is calculated based on emission data from 2019 and data from acquisitions from 2019 and 2020.

[3] Location-based CO_2 emission factors are based on 2018 emissions as given by the "International Energy Agency (IEA) (2020) Emission Factors". Data for 2020 has been restated due to minor updates in the emission factors.

[4] The following emissions factors have been applied to the 2019 data: "eGRID 2019 Subregion GHG Output Emission Rates" (United States Environmental Protection Agency), "China eGRID 2019 Emission Output Rates" (Clean Development Mechanism China), "CO_2 emission factors of the National Interconnected System of Brazil" for 2019 (Brazilian Technology and Science Ministry) and "European Residual Mixes 2019" (Association of Issuing Bodies). The following emissions factors have been applied to the 2020 and 2021 data: "eGRID 2019 Subregion GHG Output Emission Rates" (United States Environmental Protection Agency), "China eGRID 2019 Emission Output Rates" (Clean Development Mechanism China), "CO_2 emission factors of the National Interconnected System of Brazil" for 2020 (Brazilian Technology and Science Ministry), "European Residual Mixes 2020" (Association of Issuing Bodies) for electricity in Europe and "International Energy Agency (IEA) (2020) Emission Factors" for district heating in Europe. Supplier-specific emission factors were applied for electricity consumption in Canada and in Lenox, USA, as well as for carbon neutral district heating and solar energy consumption in Finland. Contract-based specific factors were applied for renewable electricity in Finland which is purchased with guarantees of origin. Location-based factors were applied in Thailand, Indonesia, Chile and India. Data has been restated for 2019 and 2020 due to updated emission factors and minor corrections in the data.

[5] The specific emission factors used in calculating the greenhouse gas emissions are based on databases and publicly available sources using monetary values from Valmet's monitoring and reporting tools.

[6] The analysis is based on the monetary value of purchased goods and services by category and supplier country. The emission flows have been calculated based on environmentally extended input output analysis and emission factors from Exiobase (www.exiobase.eu). The purchasing spend data used covers approximately 98% (2020: 98%) of Valmet's total purchase order amount (excluding business travel, transportation, and taxes and charges related spend). Data has been restated for 2019 and 2020 due to improved data coverage and quality related to system change.

[7] The analysis of upstream and downstream transportation and distribution emissions is based on suppliers' emission reports, and when not available, the monetary value of purchased transportation services following the same calculation methodology as for category 1 emissions. The calculated transportation modes include air, rail, ocean and road ransportation. Data has been restated for 2019 and 2020 due to improved data coverage and quality related to system change.

[8] The analysis of business travel emissions is based on emission, mileage and spend data from travel agencies. Valmet's business travel emissions: the air travel data used covers Austria, Czech Republic, Denmark, Finland, France, Germany, Italy, Netherlands, Norway, Poland, Portugal, Russia, South Africa, Spain, Sweden, Turkey, UK, UAE, USA, Canada, Brazil, Australia, New Zealand, India, Indonesia, Japan, Korea, Thailand, Vietnam, China and represents 99,9% (2020: 99%) of Valmet's global workforce. For other business travel modes, including rented vehicles, compensated mileages and hotel nights, data used covers Austria, Czech Republic, Denmark, Finland, France, Germany, Italy, Netherlands, Norway, Poland, Portugal, Russia, South Africa, Spain, Sweden, UK, USA, Canada, Brazil, Australia, New Zealand, India, Indonesia, Japan, Korea, Thailand, Vietnam, China and represents 97% of Valmet's global workforce. Data has been restated for 2019 and 2020 due to improved data coverage and quality related to system change.

[9] Emissions from downstream transportation and distribution are based on an estimated volume of downstream transportation services. The distribution of transportation modes and emission intensity from upstream transportations has been applied for downstream transportations. The downstream transportation and distribution data includes air, train, ocean and road transportation and is estimated to be 15 percent of total transportation emissions. Data has been restated for 2019 and 2020 due to improved data coverage and quality related to system change.

[10] Data includes Valmet's 2021 sold entire paper, board and tissue production lines, fossil-fired fluidizer bed boilers and lime kilns, during their expected lifetime (25 years). The CO_2 calculation is based on Valmet's average product specific energy consumption and product specifications including delivered capacity and intended fuel mix. N_2O and CH_4 included from biomass combustion in pulp and energy production. CO_2 emissions from electricity are calculated based on IEA (2020) country-specific emission factors. CO_2 emissions from steam are calculated based on Fisher International installed base fuel mix data. Emission factors for fuels are based on IPCC, Defra and Tilastokeskus. IEA Scenario for current policies (STEPS) power sector emission intensity reduction (CAGR) is utilized in projecting the lifetime emissions for electricity and steam. Quantifying and projecting the future emissions from use of sold products involves a large number of assumptions and the actual emissions from use of sold products are largely dependent on choices made by our customers. For these reasons, the figure reported is an estimate to understand the magnitude of category 11 lifetime emissions, which are representing more than 95% of Valmet's value chain emissions. The included paper, board and tissue machines represent 78% of PAP's total orders received in 2019-2021, excluding basic machine unit assembly groups and smaller equipment deliveries. The fossil-fired boilers and lime kilns represent 9% of the P&E's 2019-2021 orders received. The remaining 91% of P&E's orders received is assumed to be carbon neutral (incl. bioenergy self-sufficient pulp mills and biomass-fired boilers). The share of total orders received is calculated based on a three-year average (2019-2021) to balance the annual differences between project revenue realization. The data used covers 88% of Valmet's three-year average of total PAP's and P&E's orders received. The annual fossil emissions of the sold products were around 5,085,000 tCO_2e, whereas biogenic emissions were around 6,908,000 tCO_2e in 2021.

[11] Emissions intensity ratio includes direct (Scope 1) and indirect (Scope 2, market-based) CO_2 emissions per MEUR net sales.

NO_x, SO_x, and other significant air emissions (GRI 305-7)[1]

GRI 305-7[1]: NO_x, SO_x, and other significant air emissions

t	2021	2020	2019
Hazardous air pollutants (HAP)	1.8	1.7	1.6
NO_x	20.5	12.7	13.2
Particulate Matter (PM)	12.5	9.7	10.8
SO_x	2.1	0.7	0.6
Volatile organic compounds (VOC)	58.9	73.7	73.3
Others standard categories	4.1	0.7	1.2

[1] Significant air emissions are defined as those listed in environmental permits of local operations. Calculations are based on published emissions factors. Data from the 2020 acquisitions is included for the first time in 2021 reporting.

Waste generation and significant waste-related impacts and their management (GRI 306-1(2020), GRI 306-2(2020))

Based on life cycle analysis (LCA) and market data of selected product families, we estimate that around 95 percent of the environmental impacts of Valmet's entire value chain, including waste impacts, occur when Valmet's solutions are being used for production at customer sites, and when our solutions reach their end-of-life. We design and develop all our technologies to support circular material flows and minimize waste amounts.

Valmet's process technologies, automation and services enable circular economy for our customers. For example:

- Our solutions improve energy, water and raw material efficiency in customer processes.
- Our solutions for biobased products decrease the need for non-renewable materials and enable cascaded use across industries.
- Our technologies for onsite recovery of energy and chemicals allow materials to circulate longer and reduce the need for virgin materials.
- Our energy technologies reduce the need for non-renewable fuels and the amount of waste.
- Modular machine design and smart engineering enable the use of the same equipment for new uses.
- Our services support well-planned maintenance and partial replacements, and rebuild solutions significantly prolong our equipment lifetime.
- We have take back programs for products like refiner segments and are actively developing other programs.
- Our products contain mainly recyclable materials.

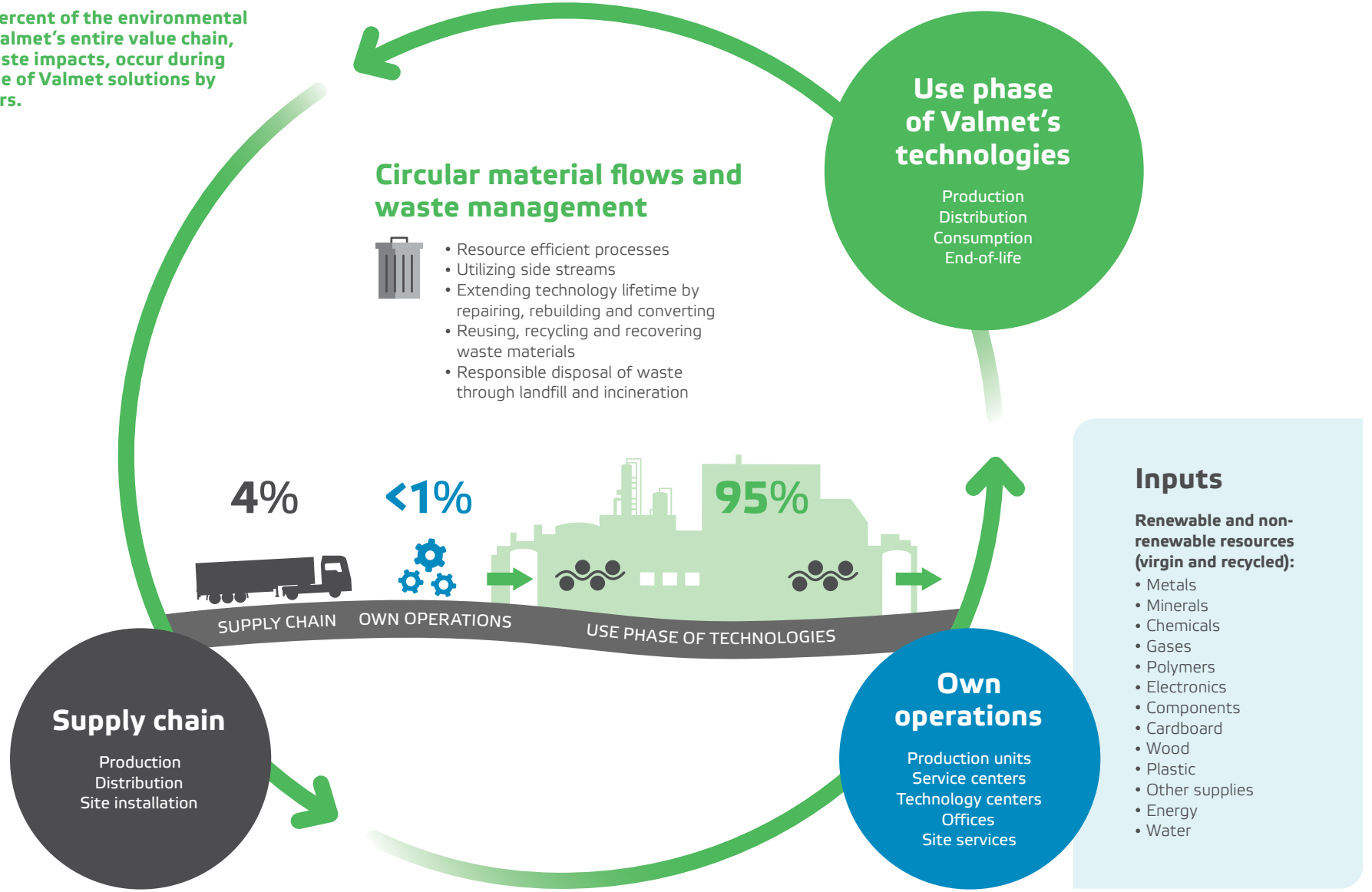
Read more about our sustainable solutions in our Annual Review on page 46 and 59.

About one percent of our environmental impact including waste is from our own operations. We invest continuously in process efficiency improvements, and we implement the waste management hierarchy in all facilities with a focus on eliminating landfill waste and reducing hazardous waste amounts. We partner with certified waste handlers in waste disposal.

The remaining four percent of our waste impact is from the supply chain, and Valmet has a systematic process for engaging with key suppliers to adopt circularity measures, identify opportunities for waste prevention and improve their waste management practices. Read more about our supplier engagement in our Annual Review on page 62.

Waste flow in Valmet's value chain

Around 95 percent of the environmental impacts of Valmet's entire value chain, including waste impacts, occur during the use phase of Valmet solutions by our customers.



Waste generated (GRI 306-3 (2020))[1,2]

1,000 t	2021	2020	2019
Reuse	10.04	8.64	7.14
Recycling	15.15	15.41	15.64
Energy recovery	9.61	2.72	2.62
Incineration	1.41	1.58	2.11
Landfill	6.23	14.52	10.73
Other[3]	0.31	1.46	0.91
Total	**42.75**	**44.33**	**39.15**

Waste diverted from disposal (GRI 306-4 (2020))[1,2,4]

Hazardous waste (offsite)

1,000 t	2021	2020	2019
Reuse	0.16	0.08	0.09
Recycling	0.36	0.58	0.58
Other recovery	0	0	0
Total	**0.52**	**0.66**	**0.67**

Non-hazardous waste (offsite)

1,000 t	2021	2020	2019
Reuse	9.88	8.56	7.05
Recycling	14.81	14.83	15.06
Other recovery	0.03	1.01	0.54
Total	**24.72**	**24.40**	**22.65**

Total of hazardous and non-hazardous waste (offsite)

1,000 t	2021	2020	2019
Total	**25.24**	**25.06**	**23.32**

Waste directed to disposal (GRI 306-5 (2020))[1,2,4]

Hazardous waste (offsite)

1,000 t	2021	2020	2019
Hazardous waste – offsite			
Energy recovery	0.29	0.37	0.17
Incineration	1.07	1.17	1.62
Landfill	0.35	0.16	0.16
Other	0.19	0.38	0.31
Total	**1.90**	**2.08**	**2.26**

Non-hazardous waste (offsite)

1,000 t	2021	2020	2019
Non-hazardous waste – offsite			
Energy recovery	9.31	2.35	2.45
Incineration	0.34	0.41	0.48
Landfill	5.88	14.36	10.58
Other	0.08	0.07	0.06
Total	**15.61**	**17.19**	**13.57**

Total of hazardous and non-hazardous waste (offsite)

1,000 t	2021	2020	2019
Total	**17.51**	**19.27**	**15.83**

[1] Waste disposal method is determined based on information provided by the waste disposal contractor according to national classification regulations. Data from the 2020 acquisitions is included for the first time in 2021 reporting.
[2] Data has been restated according to GRI 306: Waste (2020).
[3] Other includes composting, deep well inject or onsite storage.
[4] Valmet only reports offsite waste amounts.
[5] Data has been restated for 2020 due to improvements made in data accuracy.

Environmental impacts of products and services (Material Valmet topic)

Based on life cycle analysis (LCA) and market data of selected product families, we estimate that around 95 percent of the environmental impacts of Valmet's entire value chain occur when Valmet's solutions (not applicable to pulp mills) are being used for production at customer sites. Since Valmet's solutions are complex in nature, their environmental impacts such as energy, water, raw material and chemical use, as well as the amount of emissions, depend on the project specifications. The actual impact of the technologies also depends on factors such as how they are operated and the selection of raw materials.

The following examples demonstrate quantified actions concerning the mitigation of the environmental impact of Valmet's products and services.

Chip to Board

Valmet's holistic Chip to Board approach for linerboard producers enables sustainable packaging with lower wood and power consumption, and a decreased carbon footprint – both for existing and new production lines. This unique approach provides many advantages when one supplier covers everything from wood handling to final board, including mill-wide optimization and process control solutions for maximized cost competitiveness and energy efficiency across the line. Stronger pulp and stronger board are achieved through innovative chip impregnation, refining and stock preparation technologies, which reduce the need for virgin pulp and allow its replacement with recycled fibers, while preserving the strength of the board and saving energy. What is more, with advanced tools for board machines, Valmet can maximize the final strength properties of the fibers. With this combination, the basis weight and the overall carbon footprint of the linerboard can be reduced, and companies worldwide can produce linerboard that is both profitable and sustainable.

Mill-wide optimization

Valmet's Mill-wide optimization solution automates decision making at the pulp and paper mill level to help coordinate process areas in the pursuit of common objectives. This leads to operating decisions that are based on the total mill balance and forecast. Lower basis weights of end products with optimal strength and higher production rates enable using less raw material and energy per unit. Production can be made with lower refiner energy. Optimizing the mill's steam and electricity production reduces environmental impacts. A reduction in chemicals usage via online mill balance generates many environmental benefits, including a reduced need for transportation and energy to produce chemicals – e.g. electricity consumption for the production of chlorine dioxide (ClO_2) via sodium chlorate, which is very energy intensive.

Waste to Energy Optimization

Optimized burning of waste is an important component in the processes and material chains of the circular economy. Materials that cannot be recycled need to be burned with the lowest possible emissions in the Waste to Energy (WtoE) processes. Maximizing the energy generation of a WtoE plant by load, as well as the waste fuel throughput together with advanced emission management are key process challenges of WtoE plants. Valmet's WtoE optimization solution is based on the advanced process control (APC) solution and utilization of a furnace camera and is completed with advanced computer vision software for flame front position on the grate. Typical benefits are an increase of up to 15 percent in annual electricity production, a reduction of up to 5 percent in Valmet's own electricity consumption, and a reduction of up to 20 percent of NOx emissions with fewer additive chemicals.

Sleeve Roll

Valmet's advanced Sleeve Roll technology provides several benefits to the paper production process: increased production, a higher-quality end product, savings in energy consumption and reductions in the use of raw materials and chemicals. The dewatering pressure at the outer layer of the Sleeve Roll is created with a shoe. This dewatering method enables high energy efficiency, as less vacuum is required, and less friction caused by blade dewatering. Sheet dryness is achieved mainly with pressing. The Sleeve Roll technology also enables better strength on the surface and throughout by applying high sheet pressure, while also reducing the need for chemicals such as starch. These are significant advantages compared to more conventional solutions.

Non-compliance with environmental laws and regulations (GRI 307-1)

No significant environmental compliance cases resulted from major permit violations, claims, compensations or media coverage related to environmental incidents in 2021. Two minor non-compliance cases with limited environmental impact resulted in an administrative fines at the Wuxi service center in China. The cases were related to domestic effluent control and to waste documentation. Immediate improvement actions were taken into use to the satisfaction of local authorities.

Total number and rates of new employee hires and employee turnover by age group, gender, and region (GRI 401-1)

New hires[1]

GRI 401-1: Total number and rate of new employee hires by age

	New hires	New hires, %
Under 30	501 (475)	32.9 (43.2)
30–50	839 (524)	55.1 (47.7)
Over 50	184 (100)	12.1 (9.1)
Total	**1,524 (1,099)**	**100 (100)**

GRI 401-1: Total number and rate of new employee hires by gender

	New hires	New hires, %
Female	366 (295)	24.0 (26.8)
Male	1,158 (804)	76.0 (73.2)
Total	**1,524 (1,099)**	**100 (100)**

GRI 401-1: Total number and rate of new employee hires by region

	New hires	New hires, %
North America	172 (94)	11.3 (8.6)
South America	171 (45)	11.2 (4.1)
EMEA	883 (807)	57.9 (73.4)
China	196 (95)	12.9 (8.6)
Asia-Pacific	102 (58)	6.7 (5.3)
Total	**1,524 (1,099)**	**100 (100)**

[1] New hires calculation: (new hires per category/total number of new hires in 2021) *100. New hires include summer trainees.

Turnover[2]

GRI 401-1: Total number of leavers and turnover rate by age

	Number of leavers	Turnover, %
Under 30	198 (128)	18.1 (9.5)
30–50	616 (366)	7.8 (4.9)
Over 50	450 (455)	8.9 (8.7)
Total	**1,264 (949)**	**9.0 (6.8)**

GRI 401-1: Total number of leavers and turnover rate by gender

	Number of leavers	Turnover, %
Female	288 (165)	9.7 (5.7)
Male	976 (784)	8.8 (7.0)
Total	**1,264 (949)**	**9.0 (6.8)**

GRI 401-1: Total number of leavers and turnover rate by region

	Number of leavers	Turnover, %
North America	205 (250)	13.4 (16.2)
South America	98 (35)	17.3 (6.5)
EMEA	761 (492)	8.3 (5.3)
China	139 (105)	7.4 (5.6)
Asia-Pacific	61 (67)	6.7 (7.5)
Total	**1,264 (949)**	**9.0 (6.8)**

[2] Turnover rate calculation: (number of leavers/total number of employees per category as of December 31, 2021) *100. Turnover includes summer trainees.

Hazard identification, risk assessment, and incident investigation (GRI 403-2 (2018))

Valmet managers identify, assess and control risks to HSE performance appropriate to the severity of the hazard or aspect liable to be encountered by the business, and following legal, contractual and internal risk management requirements. The duty to conduct risk assessments of the HSE hazards and aspects of work activities is satisfied by applying a multi-layered risk assessment methodology, including:

- Location-specific HSE risk registers
- Job-specific risk assessments and safe operating procedures
- Pre-task dynamic hazard assessments
- Chemical risk assessments
- Risk and opportunity assessments in sales and delivery projects, including HSE aspects
- HSE risk assessment of change in operations (such as a new organization, new plant, new/rebuilt facilities, new processes).

HSE impacts and risks are managed until they are eliminated, reduced or controlled (based on the hierarchy of controls) to the point of being acceptable through the implementation of safe work systems before any work activities commence. Workers participate in and are informed about the HSE risk and impact management related to their work. HSE risk assessments are reviewed periodically, with an emphasis on ensuring the effectiveness of critical controls, and always in the event of significant changes, or after injuries and serious near misses have occurred.

Everyone working for Valmet or in a workplace controlled by Valmet is responsible for reporting all incidents, as well as observations of hazards and hazardous situations, without delay to their manager and our global reporting system. This reporting triggers various activities within Valmet to ensure good incident management. Managers are responsible for incident investigations, including root cause analysis and corrective actions, all of which are documented in the reporting system. Workers and their representatives participate in and support the investigation and corrective actions. HSE alerts are produced for all recordable and high-potential near misses, and shared globally as part of the monthly reporting.

Managers and workers are trained in how to perform risk assessments, incident reporting and investigations. All workers have the right to refuse unsafe work and will inform their manager or site contact immediately of all concerns. Valmet's HSE function ensures the quality of hazard identification, risk assessment and incident investigation processes, and that improvements and lessons are shared globally.

Occupational health services (GRI 403-3 (2018))

Valmet ensures employees' access to qualified occupational health services through country-based approaches that also comply with local legal requirements and provide service in the local language. Information on the available occupational health services is provided to employees during their onboarding. Services are provided during workhours. In the larger production units, these services are available at the location. Valmet contractually requires that the employer of workers who are not Valmet employees ensures their access to these services.

Worker participation, consultation and communication on occupational health and safety (GRI 403-4 (2018))

As stated in our HSE policy, we facilitate the participation and consultation of our people and partners in HSE activities and practices. The backbone of our approach is in joint management-worker safety committees in all locations with more than 30 employees. Following a global guideline, these committees meet at least once a year and more often in production locations, have elected worker representatives, establish annual budgets and action plans, and follow standard agenda items covering all aspects of the development, implementation and evaluation of the local HSE management system.

In addition, we deploy a variety of other methods, including making HSE a routine meeting agenda item in team meetings, townhall events and one-on-one discussions, toolbox talk practices, management safety walk-and-talks, elected worker safety representatives, employee surveys, employee participation in risk assessments and pre-task safety discussions, HSE information on noticeboards, and intranet communications on HSE.

GRI 403-4: Percentage of employees represented in health and safety committees by region

	%
North America	97 (99)
South America	100 (100)
EMEA	96 (96)
China	97 (97)
Asia-Pacific	98 (99)
Total	**97 (97)**

Worker training on occupational health and safety (GRI 403-5 (2018))

Valmet's global HSE training framework consists of four layers – global, worksite, role-specific and task-specific training. Its design is based on an assessment of legal, customer and industry HSE obligations, as well as HSE risks and impacts. All HSE training is provided free of charge and during paid workhours. Training effectiveness is evaluated through competence tests during the training session.

We have two mandatory global training programs, both available in the main employee languages. All employees complete the HSE induction for the Valmet workplaces e-learning course during their onboarding. This e-learning covers Valmet's common HSE rules and minimum safety standards. This e-learning course is also available for all external workers in our Partner Academy platform. All Valmet employees were also expected to participate in the Safety Dialogue training by the end of 2021 (read more in the Annual Review on page 52). In this program, managers and employees explore attitudes, behaviors and skills for promoting a positive safety culture at Valmet. Standard training material for our minimum safety standards, travel safety and other global HSE routines is also available in various languages in our learning library.

All employees and external workers are required to continuously complete relevant worksite-spesific HSE inductions. During onboarding, introductions in local languages are held for the Valmet location and the specific local HSE risks, rules and routines. Valmet HSE inductions are also held for everyone entering our temporary and remote worksites in our installation projects in the main project language and in English if required. In addition, everyone working for Valmet is required to complete customer mill introductions.

Role-specific HSE training requirements are defined in country- or location-based HSE training matrices reflective of local regulatory and industry requirements, as well as the Valmet minimum safety standards. These training programs are mainly provided for our employees by qualified external training service providers at the defined frequency and always in the local language. We require that all external workers are provided with relevant role-specific training meeting our requirements by their own employer. All workers are given task-specific training on safe operating procedures as required.

Promotion of worker health (GRI 403-6 (2018))

Valmet implements a global approach where locations with 30 or more employees have a social committee comprised of employees based in the location and with the purpose of hosting social events and coordinating activities that build engagement and collaboration, as well as promoting wellbeing at work. Social committees support wellbeing at work through five evidence-based action areas – connect, be active, take notice, keep learning, and give. The social committee can be combined with the HSE committee, see GRI 403-4 on page 32.

Valmet facilitates employees' access to non-medical and healthcare services through a country-based approach utilizing a mix of mechanisms such as health insurance, company clinics and financial contributions. For workers who are not employees, their employer facilitates their access to these services.

Percentage of employees represented in social committees by region

	Headcount, %
North America	98 (99)
South America	100 (100)
EMEA	95 (94)
China	99 (99)
Asia-Pacific	70 (74)
Total	**94 (94)**

Prevention and mitigation of occupational health and safety impacts directly linked by business relationships (GRI 403-7 (2018))

A value chain perspective is embedded in our global management system (GMS) and our health and safety objectives, actions and routines.

Workers covered by an occupational health and safety management system (GRI 403-8 (2018))

All employees and external workers are covered by Valmet's global management system (GMS), an integrated quality, health, safety and environmental management system. Read more about the system in the Annual Report on page 51 and 66. The GMS is audited through several Groupwide internal processes, including risk management, logistics, HSE, corporate internal audit, sustainability assurance, and internal audits of the global management system.

The GMS is certified as a global multi-site system by a third party according to the ISO 9001:2015, ISO 14001:2015 and ISO 45001:2018 standards, but to varying scopes of coverage – see the table below. We are continually expanding our coverage, and the target is that all production locations and at least 90 percent of all workers will be covered by the system by 2025. We have defined an expansion roadmap toward this target. Currently, the ISO 45001:2018 certification covers the main production locations and project installations.

GRI 403-8: Workers covered by a certified management system (GRI 403-8 (2018))[1]

	2021	2020	2019
ISO 9001:2015 (Quality management)	86	84	87
ISO 14001:2015 (Environmental management)	79	74	71
ISO 45001:2018 (Occupational health and safety management)	75	64	62

[1] Valmet does not have a global tracking system for external worker headcount. Coverage of the occupational health and safety management system is calculated based on employee headcount, and it is assumed that this is also representative of the average coverage of external workers.

Work-related injuries (GRI 403-9 (2018))[1]

Based on a consolidation of local health and safety risk registers and an analysis of injuries and near misses, Valmet has identified twelve main hazards that pose a risk of high-consequence injury and defined them for each Minimum Safety Standard – as described in the management approach description (see page 18). These standards are designed to ensure the hierarchy of controls is implemented in all operations to eliminate hazards and minimize risks. Valmet's operations continuously implement injury prevention actions as part of annual improvement plans. In 2021, there were three high-consequence injuries and one fatal injury related to working at heights and the use of tools, equipment and machines during work tasks (read more in our Annual Review on page 64). All injuries are investigated, and improvement actions are taken to prevent similar incidents in the future.

GRI 403-9: Number of hours worked by region (employees)[2]

	2021	2020	2019
North America	2,899,200	3,023,040	2,996,960
South America	1,107,200	1,057,280	1,023,520
EMEA	17,782,240	16,932,800	16,467,678
China	3,591,200	3,479,040	3,397,760
Asia-Pacific	1,752,960	1,716,800	1,634,880
Total	**27,132,800**	**26,208,960**	**25,520,798**

GRI 403-9: Number of hours worked by region (external workers)[3]

	2021	2020	2019
North America	165,862	92,068	302,288
South America	9,932,084	4,619,860	1,158,403
EMEA	5,207,832	3,593,038	4,577,988
China	895,072	855,529	942,877
Asia-Pacific	1,911,573	961,056	347,515
Total	**18,112,423**	**10,121,550**	**7,329,071**

GRI 403-9: Number of fatalities as a result of work-related injury (employees and external workers)

	2021	2020	2019
Employees	0	1	0
External workers	1	0	0

[1] The European Statistics at Work Methodology is used for recording and reporting accident statistics. This methodology follows the ILO Code. Incident data is collected in the global Spotlight reporting system. It covers all countries and all operations, including work on customer and delivery project sites.

[2] Workhours for Valmet employees are calculated according to theoretical workhours based on active headcount.

[3] External workers are leased or contracted workforce whose work or workplace is controlled by Valmet. Workhours for external workers are consolidated from local reporting systems and are calculated based on both theoretical and actual workhours.

GRI 403-9: Number of high-consequence work-related injuries by region (employees)[4]

	2021	2020	2019
North America	0	0	1
South America	0	0	0
EMEA	0	1	0
China	1	2	0
Asia-Pacific	0	0	0
Total	**1**	**3**	**1**

GRI 403-9: Number of high-consequence work-related injuries by region (external workers)[4]

	2021	2020	2019
North America	0	0	0
South America	2	1	0
EMEA	0	1	2
China	0	0	0
Asia-Pacific	0	0	0
Total	**2**	**2**	**2**

GRI 403-9: Number of recordable work-related injuries by region (employees)[5]

	2021	2020	2019
North America	20	17	19
South America	2	3	2
EMEA	51	50	80
China	11	10	10
Asia-Pacific	0	1	2
Total	**84**	**81**	**113**

GRI 403-9: Number of recordable work-related injuries by region (external workers)[5]

	2021	2020	2019
North America	5	3	5
South America	56	28	5
EMEA	55	47	54
China	0	0	0
Asia-Pacific	6	1	3
Total	**122**	**79**	**67**

[4] A high-consequence work-related injury results in either more than six months of days away from work or permanent disability.

[5] A recordable work-related injury results in death, days away from work, restricted work or transfer to another job, or medical treatment beyond first aid (first aid cases are excluded).

GRI 403-9: Rate of fatal work-related injuries by region (employees)[6]

	2021	2020	2019
North America	0	0	0
South America	0	0	0
EMEA	0	0.1	0
China	0	0	0
Asia-Pacific	0	0	0
Total	**0**	**0.04**	**0**

GRI 403-9: Rate of fatal work-related injuries by region (external workers)[6]

	2021	2020	2019
North America	0	0	0
South America	0	0	0
EMEA	0	0	0
China	0	0	0
Asia-Pacific	0.5	0	0
Total	**0.06**	**0**	**0**

GRI 403-9: Rate of high-consequence work-related injuries by region (employees)[7]

	2021	2020	2019
North America	0	0	0.3
South America	0	0	0
EMEA	0	0.1	0
China	0.3	0.6	0
Asia-Pacific	0	0	0
Total	**0.04**	**0.1**	**0.1**

GRI 403-9: Rate of high-consequence work-related injuries by region (external workers)[7]

	2021	2020	2019
North America	0	0	0
South America	0.2	0.2	0
EMEA	0	0.3	0.4
China	0	0	0
Asia-Pacific	0	0	0
Total	**0.1**	**0.2**	**0.3**

[6] The rate of fatal work-related injuries is based on the number of fatal injuries per million hours worked.

[7] The rate of high-consequence work-related injuries is based on the number of high-consequrence injuries per million hours worked.

GRI 403-9: Lost time incident frequency, LTIF, by region (own employees)[8]

	2021	2020	2019
North America[6]	2.4	1.7	2.7
South America	0	0.9	0
EMEA	1.6	1.7	2.6
China	0.8	1.1	1.2
Asia-Pacific	0	0	0.6
Total	**1.4**	**1.5**	**2.2**

GRI 403-9: Lost time incident frequency, LTIF, by region (external workers)[8]

	2021	2020	2019
North America	18.1	0.0	3.3
South America	1.1	0.6	2.6
EMEA	7.9	6.4	8.1
China	0	0	0
Asia-Pacific	0.5	1.0	2.9
Total	**3.1**	**2.7**	**5.7**

GRI 403-9: Total recordable incident frequency, TRIF, by region (own employees)[9]

	2021	2020	2019
North America	6.9	5.6	6.0
South America	1.8	2.8	2.0
EMEA	2.9	3.0	4.9
China	3.1	2.9	2.9
Asia-Pacific	0	0.6	2.9
Total	**3.1**	**3.1**	**4.4**

GRI 403-9: Total recordable incident frequency, TRIF, by region (external workers)[9]

	2021	2020	2019
North America	30.1	32.6	16.5
South America	5.6	6.1	4.3
EMEA	10.6	13.1	11.8
China	0	0	0
Asia-Pacific	3.1	1.0	8.6
Total	**6.7**	**7.8**	**9.1**

[8] LTIF is based on number of work-related injuries resulting in at least one calender day away from work per million hours worked.

[9] TRIF is based on the number of recordable work-related injuries per million hours worked.

Work-related ill health (GRI 403-10 (2018))[1]

Valmet maintains up-to-date risk maps for all its operations to identify health hazards, implements necessary controls with the aim of preventing ill health and continuously monitors health. Workers in production and construction environments are at risk of:

- Skin disease caused by physical, chemical or biological agents
- Hearing impairment caused by noise from equipment
- Diseases caused by vibration from using handheld equipment
- Musculoskeletal disorders from manual handling (lifting, pulling, pushing) and repetitive movements
- Respiratory diseases from dusts and chemical exposure
- Infectious diseases

In 2021, four cases of repetitive strain injury were diagnosed by local social insurance and the worker compensation authorities[2].

GRI 403-10: Number of fatalities as a result of work-related ill health (employees)

	2021	2020	2019
Employees	0	0	0
Total	**0**	**0**	**0**

GRI 403-10: Number of recordable cases of work-related ill health by region (employees)[2]

	2021	2020	2019
North America	3	3	2
South America	0	0	0
EMEA[3]	2	2	3
China	0	0	0
Asia-Pacific	1	0	0
Total	**6**	**5**	**5**

GRI 403-10: Absentee rate by region (employees)[4]

%	2021	2020	2019
North America	1.8	1.9	2.4
South America	0.4	0.6	1.0
EMEA	3.3	3.3	3.2
China	0.7	0.8	1.0
Asia-Pacific	0.9	0.8	1.2
Total	**2.6**	**2.5**	**2.6**

[1] Valmet does not collect occupational health data for external workers due to data privacy. This is done by the responsible employer.

[2] A recordable work-related ill health case is a diagnosed occupational disease case that has been registered at and accepted by the local social insurance or workers' compensation body. 2020 and 2019 data is restated due to improvements in data collection.

[3] The data from Sweden and Germany is omitted due to data privacy issues.

[4] The absentee rate reflects the actual absentee days lost expressed as a percentage of total days scheduled to be worked by the active and inactive employees for the same period.

GRI 403-10: Occupational disease rate by region (employees)[5]

	2021	2020	2019
North America	1.0	1.0	0.7
South America	0	0	0
EMEA[3]	0.1	0.1	0.2
China	0	0	0
Asia-Pacific	0.6	0	0
Total	**0.2**	**0.2**	**0.2**

[3] The data from Sweden and Germany is omitted due to data privacy issues.
[5] The occupational disease rate is based on the number of recordable cases of work-related ill health per million hours worked.

Training hours (GRI 404-1)

Total training hours recorded in 2021 were around 283,000 hours, with an average training investment per employee of 295 EUR. The average number of training hours for a Valmet employee in 2021 was 19.0 hours (female employees 24.0 hours, male employees 17.6 hours). Training hours are reported for all employees, based on the information available in Valmet's people management system.

Learning programs (GRI 404-2)

We encourage development throughout an employee's career at Valmet, making sure our people develop their competence continuously. We follow a 70–20–10 learning philosophy, with 70 percent occurring through on-the-job learning, 20 percent through learning relationships, and 10 percent through formal learning.

We always adhere to legal requirements and country practices regarding the management of career endings. In situations that have a significant impact on individuals and local communities, we take steps to provide additional support in the form of outplacement training, individual skill development, financing for new enterprises, entrepreneur training and compensation for relocation costs.

Performance reviews (GRI 404-3)

Valmet carries out a documented annual review discussion comprising a performance review and development plan for its white-collar employees. Annual review discussions are also encouraged for Valmet's blue-collar employees, some of which take place as documented group discussions.

GRI 404-3: Employees receiving regular performance and career development reviews

	Female, %	Male, %	Total, %
White-collar	98.8 (99.6)	99.1 (99.4)	99.1 (99.5)
Senior management	100 (100)	100 (99.3)	100 (99.4)
Managerial and specialist	98.8 (99.6)	99.1 (99.4)	99.0 (99.5)
Blue-collar	97.9 (67.7)	72.9 (72.2)	78.0 (71.9)

Composition of governance bodies and employee breakdown (GRI 405-1)[1]

GRI 405-1: Board of Directors

Years	Female total, %	Male total, %	Total, %
Under 30	0 (0)	0 (0)	0 (0)
30–50	0 (0)	0 (0)	0 (12.5)
Over 50	33.3 (50.0)	66.7 (50.0)	100 (100)
Total	**33.3 (50.0)**	**66.7 (50.0)**	**100 (100)**

GRI 405-1: Executive Team

Years	Female total, %	Male total, %	Total, %
Under 30	0 (0)	0 (0)	0 (0)
30–50	7.7 (7.7)	7.7 (7.7)	15.4 (15.4)
Over 50	7.7 (7.7)	76.9 (76.9)	84.6 (84.6)
Total	**15.4 (15.4)**	**84.6 (84.6)**	**100 (100)**

GRI 405-1: Breakdown of employees by employee category and gender

	Female total, %	Male total, %	Total, %	Total
White-collar	17.1 (16.7)	55.9 (55.9)	73.0 (72.6)	10,367 (9,692)
Senior management	0.3 (0.2)	0.9 (0.9)	1.2 (1.1)	166 (167)
Managerial and specialist	16.8 (16.5)	55.0 (54.8)	71.8 (71.3)	10,201 (9,525)
Blue-collar	3.6 (4.3)	23.4 (23.1)	27.0 (27.4)	3,836 (3,666)
Total	**20.7 (21.0)**	**79.3 (79.0)**	**100 (100)**	**14,203 (13,358)**

GRI 405-1: Breakdown of employees by employee category and age group[1]

	Age in years				
	Under 30, total, %	30–50, total, %	Over 50, total, %	Total, %	Total
White-collar	6.9 (6.0)	38.9 (38.7)	27.2 (27.8)	73.0 (72.5)	10,367 (9,692)
Senior management	0 (0)	0.5 (0.5)	0.7 (0.7)	1.2 (1.2)	166 (167)
Managerial and specialist	6.9 (6.0)	38.4 (38.2)	26.5 (27.1)	71.8 (71.3)	10,201 (9,525)
Blue-collar	2.8 (3.3)	14.5 (14.4)	9.7 (9.8)	27.0 (27.5)	3,836 (3,666)
Total	**9.6 (9.3)**	**53.4 (53.1)**	**37.0 (37.6)**	**100 (100)**	**14,203 (13,358)**

[1] Data for acquisition in Germany (43) not included in numbers.

GRI 405-1: Breakdown by nationality for the ten largest employee groups

Nationality	Line managers by country, %	Total, %
Finnish	42.2 (-)	37.0 (37.1)
Chinese	12.3 (-)	13.5 (13.1)
Swedish	10.3 (-)	11.4 (11.5)
American	11.7 (-)	8.3 (9.1)
Polish	3.5 (-)	3.9 (4.9)
Brazilian	3.8 (-)	3.8 (3.4)
Indian	1.9 (-)	3.1 (2.6)
Portuguese	1.8 (-)	2.9 (2.9)
Spanish	0.2 (-)	1.9 (1.9)
German	2.3 (-)	1.7 (1.9)

GRI 405-1: Share of women in the workforce[1]

	Female total, %
All employees	20.7 (20.7)
All managers	17.6 (17.3)
Senior managers	19.7 (16.8)
Junior managers	17.4 (-)
Managers in revenue-generating roles	15.1 (-)
All STEM-related roles	11.5 (11.3)

[1] All managers: All line managers
Senior managers: All employees in job grades E, 14 and 13
Junior managers: Line managers in job grades 6–12
Managers in revenue-generating roles: Line managers in engineering, general management, operations and manufacturing, procurement and logistics, project management, sales, and service job families.
All STEM-related roles: All employees with qualifications in science, technology, engineering and mathematics.

Measures taken to eliminate forced or compulsory labor in risk areas (GRI 409-1)

In the industries from which Valmet makes most of its purchases, the potential human rights risks are related to freedom of association, the possible use of forced labor, and occupational health and safety. Valmet has also acknowledged that certain countries, for example in Asia, where it has both its own operations and makes purchases, are commonly identified as risk countries in terms of human rights impacts. Child labor and forced labor are among the indicators assessed to define the country-specific risk.

Valmet has a global process in place to ensure compliance with the requirements set out in its Sustainable Supply Chain policy. All suppliers are required to sign the policy as part of their contract with Valmet. Valmet has an automated sustainability risk assessment for all its suppliers. Based on the risk assessment, Valmet may ask its suppliers to evaluate their sustainability performance by conducting a self-assessment through an online tool, which is used as one of the criteria to define the need for a potential sustainability audit. Valmet conducts supplier sustainability audits with a certified independent third-party auditor.

New suppliers that were screened using social criteria (GRI 414-1)

Screening of new direct suppliers from a sustainability risk perspective is an automated and integrated feature of Valmet's global supplier approval process. Valmet's key performance indicators related to the sustainable supply chain are integrated into the global supplier sustainability management process.

In 2021, 94 percent (92%) of all new direct suppliers were automatically screened for sustainability. The remaining suppliers have been manually assessed for the potential sustainability risk. The screening covers business ethics, compliance, human and labor rights, health, safety and environmental management, and product safety topics.

Assessment of the health and safety impacts of product and service categories (GRI 416-1)

Safety is an integral part of Valmet's technologies, automation and services. The safety requirements of all Valmet's solutions are carefully reviewed and assessed in the R&D process, and must be fulfilled in each product development phase.

Valmet's solutions are required to be safe to use, and they are designed to meet or exceed all applicable safety standards and regulations. To ensure safe operations, customer training is included in all project deliveries. Moreover, the majority of Valmet's operations are certified to quality, health and safety, and environmental management standards, and processes that ensure product safety are followed.

Non-compliance with laws and regulations in the social and economic area (GRI 419-1)

There were no significant fines regarding non-compliance with social and economic laws and regulations in 2021.

Independent Limited Assurance Report to the Management of Valmet

Scope of Engagement

Valmet Oyj ("Valmet") commissioned **DNV Business Assurance Finland Oy Ab** ("DNV") to conduct a limited assurance engagement over Selected Information presented in the Valmet's Financial Statements, Annual Review and GRI Supplement 2021 (the "Report") for the reporting period 1st January to 31st December 2021.

Selected Information

The scope and boundary of our work is restricted to the non-financial indicators presented in the Report of the Board of Directors in Valmet Financial Statements 2021, and key sustainability performance indicators and metrics presented in Valmet Annual Review 2021 and GRI Supplement 2021. The indicators that have been assured as part of the scope of work are all non-financial disclosures on pages 10–16 in the Report of the Board of Directors and selected GRI-based sustainability disclosures identified with an 'x' in the Assurance column of the GRI content index in Valmet GRI Supplement 2021 on pages 4–10 (the "Selected Information").

To assess the Selected Information, which includes an assessment of the risk of material misstatement in the Report, we have used Global Sustainability Standard Board's GRI Standards and Valmet's reporting principles, (the "Criteria", see page 3).

We have not performed any work, and do not express any conclusion, on any other information that may be published in the Report or on Valmet's website for the current reporting period.

Our conclusion

Based on the procedures we have performed and the evidence we have obtained, nothing has come to our attention that causes us to believe that the Selected Information is not fairly stated and has not been prepared, in all material respects, in accordance with the Criteria.

This conclusion concerns only the Selected Information and is to be read in the context of this Assurance Report, especially the inherent limitations explained below.

Standard and level of assurance

We performed a limited assurance engagement in accordance with the International Standard on Assurance Engagements (ISAE) 3000 revised – "Assurance Engagements other than Audits and Reviews of Historical Financial Information" (revised), issued by the International Auditing and Assurance Standards Board. This standard requires that we comply with ethical requirements and plan and perform the assurance engagement to obtain limited assurance.

DNV applies its own management standards and compliance policies for quality control in accordance with ISO/IEC 17021:2015 - Conformity Assessment Requirements for bodies providing audit and certification of management systems, and accordingly maintains a comprehensive system of quality control, including documented policies and procedures regarding compliance with ethical requirements, professional standards, and applicable legal and regulatory requirements.

The procedures performed in a limited assurance engagement vary in nature and timing from and are less detailed than those undertaken during a reasonable assurance engagement, so the level of assurance obtained is substantially lower than the assurance that would have been obtained had a reasonable assurance engagement been performed. We planned and performed our work to obtain the evidence we considered sufficient to provide a basis for our opinion to ensure the risk of this conclusion being in error is reduced but not completely eliminated.

Basis of our conclusion

We are required to plan and perform our work to consider the risk of material misstatement of the Selected Information; our work included but was not restricted to:

- Assessing the appropriateness of the Criteria for the Selected Information;
- Conducting interviews with Valmet's management to obtain an understanding of the data management systems and processes used to generate, aggregate, and report the Selected Information;
- Reviewing processes and systems for preparing site-level data consolidated at Head Office. One on-site and four remote site visits were conducted in Canada, China, India, Poland and Spain. DNV were free to choose the sites based on the materiality and type of sites visited in previous assurance engagements;
- Reviewing data at source and following this through to consolidated Group data;

- Reviewing whether the evidence, measurements, and scope of the Selected Information are prepared in accordance with the Criteria; and
- Reviewing the Report and narrative accompanying the Selected Information in the Report with regard to the Criteria.

Inherent limitations

Our assurance relies on the premise that the data and information provided by Valmet to us as part of our review procedures have been provided in good faith. Because of the selective nature (sampling) and other inherent limitations of both procedures and systems of internal control, there remains the unavoidable risk that errors or irregularities may not have been detected. Energy use data utilized in Greenhouse Gas (GHG) emissions calculations are subject to inherent limitations, given the nature and the methods used for determining such data. Finally, the selection of different but acceptable measurement techniques may result in materially different measurements.

DNV expressly disclaims any liability or co-responsibility for any decision a person or an entity may make based on this Independent Assurance Report.

Our competence, independence and quality control

DNV established policies and procedures are designed to ensure that DNV, its personnel and – where applicable – others are subject to independence requirements (including personnel of other entities of DNV) maintain independence where required by relevant ethical requirements. This engagement work was carried out by an independent team of sustainability assurance professionals, whose members have not been involved in the development of any of the Criteria. Our multidisciplinary team consisted of professionals with a combination of environmental and sustainability assurance experience.

Responsibilities of the Management of Valmet and DNV

The Management of Valmet have sole responsibility for:

- Preparing and presenting the Selected Information in accordance with the Criteria;
- Designing, implementing and maintaining effective internal controls over the information and data, resulting in the preparation of the Selected Information that is free from material misstatements;
- Measuring and reporting the Selected Information based on their established Criteria; and
- Contents and statements contained within the Report and the Criteria.

Our responsibility is to plan and perform our work to obtain limited assurance about whether the Selected Information has been prepared in accordance with the Criteria and to report to Valmet in the form of an independent limited assurance conclusion, based on the work performed and the evidence obtained. We have not been responsible for the preparation of the Report.

For and on behalf of DNV Business Assurance Finland Oy Ab

Espoo, Finland

February 9, 2022

Mikael Niskala
Lead Auditor
DNV
– Business Assurance

Olli Miettinen
Principal Consultant and Reviewer
DNV
– Business Assurance

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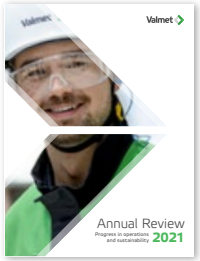
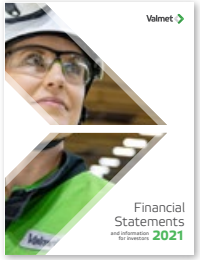
Valmet reports 2021



ANNUAL REVIEW 2021
The report covers Valmet's market environment and the progress of its strategy, operations and sustainability in 2021.



FINANCIAL STATEMENTS 2021 AND INFORMATION FOR INVESTORS
The report includes Valmet's Financial Statements for 2021 and information about its shares, shareholders and management.

GRI SUPPLEMENT 2021
The report includes Valmet's sustainability reporting indicators and principles and their alignment with the Global Reporting Initiative (GRI) Standards framework in 2021.

REMUNERATION REPORT 2021
The report covers Valmet's remuneration principles and remuneration in 2021.

CORPORATE GOVERNANCE STATEMENT 2021
The report covers Valmet's governance principles and activities of the Board of Directors and management in 2021.

About this report

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