

GRI Supplement 2019



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Valmet's sustainability reporting in 2019

Valmet has been reporting its sustainability performance since 2002. The sustainability data is published annually.

Valmet's sustainability reporting in 2019 is in accordance with the Core option of the GRI Standards from the Global Reporting Initiative (GRI, 2016 and 2018). Standard disclosures for 2019, with a reference to external assurance in the GRI content index, have been externally assured by an independent third party.

Reporting principles

Our reporting covers the Valmet Group unless otherwise stated. However, there are some exceptions in the GRI indicator data from 2019: GRI indicators related to Human Resources and Occupational Health and Safety include combined data from Valmet and the companies acquired in 2019. The GRI indicators related to other topics exclude data from the acquired companies. Valmet targets to report complete complete data in all GRI indicators, including the acquired sites from 2020 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. In some indicators, the 2018 numbers are shown in brackets after 2019. Any other division 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 on the basis of 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. Harmonized global HSE reporting principles and a systematic data validation process form the basis of data quality for our HSE reporting. Some of the 2017 and 2018 HSE data has been restated based on improvements in data quality.

Incident data is reported continuously by all employees in a global incident management system. The data is consolidated and analyzed in accordance with the European Statistics on Accidents at

Valmet's annual reporting in 2019 consists of the Annual Review, Financial Statements, GRI Supplement, Remuneration Report and Corporate Governance Statement. The GRI Supplement defines the scope and principles of Valmet's GRI reporting, the selected topics and the topic 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.

Work (ESAW) methodology. This methodology is based on the code of practice of the International Labor Organization (ILO) "Recording and notification of occupational accidents and diseases".

Environmental data based on local invoice and consumption records is reported annually. 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 "A 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 four selected relevant categories of Scope 3: category 1: purchased goods and services; category 4: upstream transportation and distribution; category 6: business travel; and category 9: downstream transportation and distribution.

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 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 form the basis of data quality for reporting related to our personnel. The employee data reported in our sustainability reporting for 2019 includes all active Valmet employees. 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 2% 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, 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 8–9			
GRI 102	102-7	Scale of the organization	Scale of the organization	Personnel and net sales: AR 6. Total capitalization, FS 24–25: Consolidated Statement of Financial Position	The total number of locations is 170.		
GRI 102	102-8	Information on employees and other workers	Breakdown of employees by contract type, employment type, region and gender	GR 10, FS 11		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 38–41, GR 14			
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	Valmet acquired two companies in 2019.		
GRI 102	102-11	Precautionary Principle or approach	Addressing the precautionary approach or principle	www.valmet.com/riskmanagement	Valmet has in place a comprehensive risk management process that enables Valmet to efficiently manage risks in order to avoid any harm to the environment and to ensure the continuity of its operations.		
GRI 102	102-12	External initiatives	External charters, principles or initiatives endorsed	AR 56–58, GR 11			
GRI 102	102-13	Membership of associations	Memberships of associations	GR 11			

Abbreviations:

AR = Annual Review 2019

FS = Financial Statements 2019 and Information for Investors

GR = GRI Supplement 2019

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		AR 10-11, 26-28, GR 11, FS 9-13			
ETHICS AND INTEGRITY							
GRI 102	102-16	Values, principles, standards, and norms of behavior	Organization's values, principles and codes	AR 26, 46-48, 56-59			
GOVERNANCE							
GRI 102	102-18	Governance structure	Governance structure	Corporate Governance Statement			
STAKEHOLDER ENGAGEMENT							
GRI 102	102-40	List of stakeholder groups	List of stakeholder groups engaged in the organization	GR 12			
GRI 102	102-41	Collective bargaining agreements	Percentage of total employees covered by collective bargaining agreements	GR 12			x
GRI 102	102-42	Identifying and selecting stakeholders	Identifying and selecting stakeholders	GR 12			
GRI 102	102-43	Approach to stakeholder engagement	Organization's approach to stakeholder engagement	GR 12			
GRI 102	102-44	Key topics and concerns raised	Key topics and concerns raised through stakeholder engagement	GR 12			

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	GRI 1, FS 74-75	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 13			
GRI 102	102-47	List of material topics	Material topics identified	GR 13			
GRI 102	102-48	Restatements of information	Restatements of information provided in previous reports	See comments	Some of the 2017 and 2018 HSE data has been restated.		
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, 2019–December 31, 2019		
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 2018 and a GRI supplement for 2018, were published on February 27, 2019.		
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 40			
GRI 102	102-54	Claims of reporting in accordance with the GRI Standards		GR 1	Valmet's sustainability reporting in 2019 has been prepared in accordance with the GRI Standards, GRI Standards (2016 and 2018): Core option.		
GRI 102	102-55	GRI content index	GRI content index	GR 2-9			
GRI 102	102-56	External assurance	Organization's policy with regard to external assurance	Assurance report: GR 37-38	The GRI content index indicates the general and topic-specific disclosures that have been externally assured.		

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	CEO review: AR 2–3, Strategy and financial targets: AR 26–29, GR 13	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 13			
GRI 103	103-3	Evaluation of the management approach	AR 2–3, 26–28			
GRI 201	201-1	Direct economic value generated and distributed	AR 57–58	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 10–11.		x
ANTI-CORRUPTION						
GRI 103	103-1	Explanation of the material topic and its Boundary	GR 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 205	205-1	Operations assessed for risks related to corruption	GRI 20	Read more: www.valmet.com/riskmanagement		x
VALMET-SPECIFIC TOPIC: PURCHASES						
GRI 103	103-1	Explanation of the material topic and its Boundary	GR 14			
GRI 103	103-2	The management approach and its components	GR 14			
GRI 103	103-3	Evaluation of the management approach	GR 14			
	Own indicator	Purchases by 10 largest countries	AR 39			x
GRI 300 ENVIRONMENT STANDARD SERIES						
ENERGY						
GRI 103	103-1	Explanation of the material topic and its Boundary	GR 15–16			
GRI 103	103-2	The management approach and its components	GR 15			
GRI 103	103-3	Evaluation of the management approach	GR 16			
GRI 302	302-1	Energy consumption within the organization	GR 20			x
GRI 302	302-3	Energy intensity	GR 20			x

SPECIFIC STANDARD DISCLOSURES						
GRI-STANDARD	DISCLOSURE NUMBER	DISCLOSURE TITLE	LOCATION	COMMENTS	OMISSIONS	ASSURANCE
WATER						
GRI 103	103-1	Explanation of the material topic and its Boundary	GR 15–16			
GRI 103	103-2	The management approach and its components	GR 15			
GRI 103	103-3	Evaluation of the management approach	GR 16			
GRI 303	303-1 (2018)	Interactions with water as a shared resource	GRI 21			x
GRI 303	303-2 (2018)	Management of water discharge-related impacts	See comments	Valmet follows local discharge permits and requirements. Valmet's water withdrawal from areas with water stress is not significant and is not material.		
GRI 303	303-3 (2018)	Water withdrawal	GR 21			x
EMISSIONS						
GRI 103	103-1	Explanation of the material topic and its Boundary	GR 15–16			
GRI 103	103-2	The management approach and its components	GR 15			
GRI 103	103-3	Evaluation of the management approach	GR 16			
GRI 305	305-1	Direct (Scope 1) GHG emissions	GR 22			x
GRI 305	305-2	Energy indirect (Scope 2) GHG emissions	GR 22			x
GRI 305	305-3	Other indirect (Scope 3) GHG emissions	GR 22			x
GRI 305	305-4	GHG emissions intensity	GR 22			x
GRI 305	305-7	Nitrogen oxides (NO _x), sulfur oxides (SO _x), and other significant air emissions	GR 23			x
EFFLUENTS AND WASTE						
GRI 103	103-1	Explanation of the material topic and its Boundary	GR 15–16			
GRI 103	103-2	The management approach and its components	GR 15			
GRI 103	103-3	Evaluation of the management approach	GR 16			
GRI 306	306-2	Waste by type and disposal method	GR 23			x
GRI 306	306-3	Significant spills	See comments	There were no significant spills in 2019.		x
VALMET-SPECIFIC TOPIC: ENVIRONMENTAL IMPACTS OF PRODUCTS AND SERVICES						
GRI 103	103-1	Explanation of the material topic and its Boundary	GR 18			
GRI 103	103-2	The management approach and its components	GR 18			
GRI 103	103-3	Evaluation of the management approach	GR 18			
	Own indicator	Environmental impacts of products and services	GR 24	Impacts are calculated per project or solution.		
ENVIRONMENTAL COMPLIANCE						
GRI 103	103-1	Explanation of the material topic and its Boundary	GR 15–16			
GRI 103	103-2	The management approach and its components	GR 15			
GRI 103	103-3	Evaluation of the management approach	GR 16			
GRI 307	307-1	Non-compliance with environmental laws and regulations	FS 11			x

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 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 401	401-1	New employee hires and employee turnover	GR 25–26			x
OCCUPATIONAL HEALTH AND SAFETY						
GRI 103	103-1	Explanation of the material topic and its Boundary	GR 15–16			
GRI 103	103-2	The management approach and its components	GR 15			
GRI 103	103-3	Evaluation of the management approach	GR 16			
GRI 403	403-1 (2018)	Occupational health and safety management system	AR 43			x
GRI 403	403-2 (2018)	Hazard identification, risk assessment, and incident investigation	GR 27			x
GRI 403	403-3 (2018)	Occupational health services	GR 27	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 (2018)	Worker's participation, consultation and communication on occupational health and safety	GR 27			x
GRI 403	403-5 (2018)	Worker training on occupational health and safety	GR 28			x
GRI 403	403-6 (2018)	Promotion of worker health	GR 28, AR 42–45	See comment to 403-3 above.		x
GRI 403	403-7 (2018)	Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	GR 28, AR 32–35, 38–41, 42–45, 56			x
GRI 403	403-8 (2018)	Workers covered by an occupational health and safety management system	GR 28, AR 42	Since we do 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 representative also for the average coverage of external workers.		x
GRI 403	403-9 (2018)	Work-related injuries	GR 29–32	Workhours for external workers (external workers under our supervision or whose workplace we control) are consolidated from local reporting systems. They are based on both theoretical and actual workhours.	Lost day rates are not calculated in our reporting systems.	x
GRI 403	403-10 (2018)	Work related ill health	GR 33–34		Our reporting systems currently do not enable tracking of work-related ill health for workers who are not employees.	x

SPECIFIC STANDARD DISCLOSURES						
GRI-STANDARD	DISCLOSURE NUMBER	DISCLOSURE TITLE	LOCATION	COMMENTS	OMISSIONS	ASSURANCE
TRAINING AND EDUCATION						
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 404	404-1	Average hours of training per year per employee	GR 34		Training hours are not reported by employee category.	x
GRI 404	404-2	Programs for upgrading employee skills and transition assistance programs	GR 34, AR 47–49			x
GRI 404	404-3	Percentage of employees receiving regular performance and career development reviews	GR 34			x
DIVERSITY AND EQUAL OPPORTUNITY						
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 405	405-1	Diversity of governance bodies and employees	GR 35–36		As Valmet's HR principles are based on equal treatment of all employees, collecting data on minority groups is not material for Valmet.	x
FORCED AND COMPULSORY LABOR						
GRI 103	103-1	Explanation of the material topic and its Boundary	GR 14			
GRI 103	103-2	The management approach and its components	GR 14			
GRI 103	103-3	Evaluation of the management approach	GR 14			
GRI 409	409-1	Operations and suppliers at significant risk for incidents of forced or compulsory labor	Identified risk areas GR 36, Measures taken AR 38–41			x
SUPPLIER SOCIAL ASSESSMENT						
GRI 103	103-1	Explanation of the material topic and its Boundary	GR 14, AR 40			
GRI 103	103-2	The management approach and its components	GR 14			
GRI 103	103-3	Evaluation of the management approach	GR 14			
GRI 414	414-1	New suppliers that were screened using social criteria	GR 36, AR 38–40			x

SPECIFIC STANDARD DISCLOSURES						
GRI-STANDARD	DISCLOSURE NUMBER	DISCLOSURE TITLE	LOCATION	COMMENTS	OMISSIONS	ASSURANCE
CUSTOMER HEALTH AND SAFETY						
GRI 103	103-1	Explanation of the material topic and its Boundary	GR 18			
GRI 103	103-2	The management approach and its components	GR 18			
GRI 103	103-3	Evaluation of the management approach	GR 18			
GRI 416	416-1	Assessment of the health and safety impacts of product and service categories	GR 36			x
SOCIO-ECONOMIC COMPLIANCE						
GRI 103	103-1	Explanation of the material topic and its Boundary	GR 18			
GRI 103	103-2	The management approach and its components	GR 18			
GRI 103	103-3	Evaluation of the management approach	GR 18			
GRI 419	419-1	Non-compliance with laws and regulations in the social and economic area	GR 36			x

Information on general disclosures

This section provides information on 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	2,387 (2,187)	9,944 (9,072)	12,331 (11,259)
Fixed Term	394 (362)	873 (907)	1,267 (1,269)
Total	2,781 (2,549)	10,817 (9,979)	13,598 (12,528)

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

	Regular	Fixed term	Total
North America	1,683	17	1,700
South America	537	11	548
EMEA	8,071	583	8,654
China	1,151	646	1,797
Asia-Pacific	889	10	899
Total	12,331	1,267	13,598

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

	Female	Male	Total
Full-time	2,278 (2070)	9,837 (8966)	12,115 (11,036)
Part-time	109 (117)	107 (106)	216 (223)
Total	2,387 (2,187)	9,944(9072)	12,331 (11,259)

GRI 102-8: Total workforce by region and gender

	Female	Male	Total
North America	233 (170)	1,467 (1032)	1,700 (1202)
South America	103 (87)	445 (423)	548 (510)
EMEA	1,919 (1,792)	6,735 (6,511)	8,654 (8,303)
China	418 (402)	1,379 (1,350)	1,797 (1,752)
Asia-Pacific	108 (98)	791 (663)	899 (761)
Total	2,781 (2,549)	10,817 (9,979)	13,598 (12,528)

Policies and commitments (GRI 102-12)

- Valmet's Code of Conduct
- Valmet's Health, Safety and Environment Policy
- Valmet's Human Resources Policy
- Valmet's Quality Policy
- Valmet's Sustainable Supply Chain Policy
- Drugs and Alcohol Guidelines at Valmet
- Valmet's Global Travel Policy
- Valmet's Equal Opportunity and Diversity Policy
- Valmet's Anti-Corruption Policy
- Valmet's Competition Compliance Guidelines
- Valmet's IPR Policy
- Valmet's Minimum Safety Standards
- Valmet's Human Rights Statement
- Valmet is a signatory of the UN Global Compact (UNGC)
- Valmet supports and promotes the principles set in 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 OHSAS 18001, ISO 14001 and ISO 9001
- Valmet supports and promotes the principles set by the OECD's Guidelines for Multinational Enterprises

Memberships of associations (GRI 102-13)

The following table lists Valmet's key memberships by country or area. 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
Exhaust Gas Cleaning Systems Association (EGCSA)
Bioenergy Association of Finland
Bioenergy Europe
Energy Technologies Europe (ETE)
Finnish Energy
Finnish Forest Industries
Association of Finnish Foundry Product Industries
WEC Finland
Foundation for the Global Compact
Finnish Business & Society (FiBS)

Sweden

Svenskt Näringsliv
Teknikföretagen
Föreningen Sveriges Skogsindustrier
Värme och Kraftföreningen (VoK)
Swedenergy (Energiföretagen Sverige)

EU

Energy Technologies Europe (EPPSA)
Bioenergy Europe (AEBIOM)
Confederation of European Paper Industries (CEPI)
EDANA
Exhaust Gas Cleaning Systems Association (EGCSA)

North America

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

South America

Brazilian Machinery and Equipment Association (ABIMAQ)
Corporación Chilena de la Madera (CORMA)

Asia Pacific

Vietnam Pulp and Paper Association
Australian Industry Group (VIC & NSW)
Japan Paper Association
Korea Paper Association (KPA)
Industry Edge

China

China National Household Paper Industry Association
China Paper Associations
China Nonwovens & Industrial Textiles Association (CNITA)

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 climate change, health and safety, environmental management, human rights and labor rights, and ethical business practices both in our own operations and our supply chain.

Management of sustainability threats and opportunities is integrated into the multi-disciplinary, group-wide risk management process at Valmet. Each Valmet business line annually assesses the probability and impact of e.g. climate change and environmental risks, and defines the need and priority of the actions to remove, mitigate, minimize, retain or utilize risks by using Valmet's risk map.

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, authorities and local communities, as well as research institutes, universities and vocational schools.

The stakeholders are defined on the basis that the specified entities or individuals can reasonably be expected to be significantly affected by Valmet's activities, products, and/or services, and that their actions can reasonably be expected to affect the ability of Valmet 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 within the European Union.

Overall, 70.8% of Valmet employees are covered by collective bargaining agreements. Participation in collective bargaining agreements varies significantly between regions, with the highest participation in EMEA (90%), South America (83%) and China (71%) and the lowest participation in North America (5%) and Asia-Pacific (3%). This reflects common practice in these regions.

Stakeholder dialogue

Valmet promotes its own and its stakeholders' operations through active stakeholder dialogue on sustainability themes such as the development and implementation of energy and climate policy, legislation and regulation, and research and technology development in environmental technology. Valmet promotes the devel-

opment of energy-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 among our stakeholders to initiate further discussion.

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

With our own employees, we conduct annual review discussions and mid-year review discussions where 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. During 2019, Valmet arranged two Supplier Day events in India and Finland. The events aimed to achieve more sustainable and open relationships with our suppliers and to increase their ability to deliver added value and innovative solutions for our businesses. The topics discussed included quality, sustainability and safety in everyday business. The importance of mutual collaboration, commitment and communication was also highlighted in building long-term competitiveness throughout the value chain. A total of 113 supplier companies attended these events. We also audit and assess our global suppliers regularly. In 2019, Valmet continued to implement a global sustainability engagement program for selected key 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 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 dedicated to the investor community. In 2019, Valmet's IR team participated in 32 roadshows and engaged with investors and analysts approximately 260 times through different channels such as conference calls, roadshows and face-to-face 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 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, 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, Valmet actively collects feedback from its stakeholders with specific surveys. For instance, suppliers, investors and customers are systematically asked for feedback at various events. 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 what is 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 wants 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 2019

The highlighted topics among our stakeholders in 2019 concerned safety, sustainable solutions and emission reductions, and human rights. All stakeholders agree that safety is important in all respects: the safety of Valmet's personnel and subcontractors, as well as product safety, were among the top topics. Stakeholders also raised issues such as the environmental impacts of Valmet's operations and the environmental efficiency of Valmet's solutions, indicating that environmental aspects are considered significant throughout Valmet's value chain. Concerning Valmet's offering, understanding customer sustainability needs and supporting more sustainable operations were seen as important. Employee development and wellbeing were also raised as important topics.

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 5–9. The process was initially conducted in 2013 and was last updated in 2018. It included a stakeholder survey sent to 9,000 stakeholders, 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 then 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. The results of Valmet's stake-

holder review, conducted in late 2018, indicated that Valmet's main stakeholders – such as customers, investors, suppliers and Valmet's own personnel – confirmed Valmet's current view of what is important for the company's sustainability performance.

Sustainability agenda

The topics included in Valmet's 2019 reporting are based on the process described above and create the basis for Valmet's sustainability agenda, which was initially defined in 2014 and is renewed every three years, with the latest update in 2018. Valmet has defined action plans for its sustainability agenda for 2019–2021. The action plans include detailed actions and targets for each sustainability focus area.

Valmet's sustainability agenda is called Sustainability360°, and it focuses on five core areas of our operations: a sustainable supply chain; health, safety and environment; people and performance; sustainable solutions; and corporate citizenship.

The material topics are grouped according to the five focus areas of Valmet's sustainability agenda, 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. 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 32–35). The sustainability agenda has been approved by Valmet's Executive Team.

Management approach

Valmet's Executive Team determines and monitors Valmet's sustainability agenda and goals 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 a member of Valmet's Executive Team and reports to the CEO.

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 group-wide 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 the group-wide initiatives are implemented to meet Valmet's sustainability goals. They are responsible for reporting sustainability data to the Group Head Office and for 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 impacts of our value chain.
Reported topics and indicators	Forced or compulsory labor: GRI 409-1 Supplier social assessment: GRI 414-1 Material Valmet Topic: Purchases by ten largest countries
Goals and targets	<ul style="list-style-type: none"> • Develop sustainable procurement practices globally <ul style="list-style-type: none"> – 100% of new direct suppliers gone through supplier approval process – 40 supplier sustainability audits per year • Support selected key suppliers to meet the level of sustainability expected by Valmet <ul style="list-style-type: none"> – Engage 100% of selected suppliers to supplier sustainability engagement program
Responsibilities	<p>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.</p> <ul style="list-style-type: none"> • 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 CEO. • 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 38–41 of the Annual Review. The Sustainable supply chain progress table and key achievements in 2019 can be found on the Sustainability 360° agenda progress report on page 34. 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	<p>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.</p> <p>Outside the organization: Valmet purchases components, products, materials and services from some 10,000 active suppliers in more than 50 countries. Special attention is paid to assessing human 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, USA, Germany, Poland, Brazil, Canada, Italy and Denmark. China, India, Indonesia and Thailand are defined as having higher potential for negative human rights impacts than the other countries from which Valmet purchases goods and services.</p>

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, and the social and organizational work environment.

Our operations also impact their local environment and contribute to global environmental challenges. The main operational aspects are energy consumption, water consumption, waste production, emissions into the air, discharges of effluent, use of hazardous substances, material consumption and noise.

Based on the above-mentioned 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.

Everyone is expected to take responsibility for HSE as defined in the Valmet Manager and Employee roles. We integrate sound HSE management practices into 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.
- 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.
- 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.

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, GRI 305-4, GRI 305-7

Effluents and waste: GRI 306-2, GRI 306-3

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 safety culture and effective HSE processes and practices, and through collaboration with customers and partners to improve HSE results. Key performance indicators and targets for 2025 are set for specific HSE areas supporting these goals: See the AR on page 34.

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 CEO.
- Valmet's Director 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.
- The global HSE management team (Valmet's Director 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 42–45 of the Annual Review. The Health, safety and environment progress table and key achievements in 2019 can be found in the Sustainability 360° agenda progress report on page 34. The action plan for 2019–2021 can be found on Valmet's website.

Evaluation of management approach

We continuously assess the effectiveness of our HSE management processes by monitoring of 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 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 48 foundries, technology centers and assembly, manufacturing and service workshops worldwide (the locations acquired during 2019 are not included). Valmet's Health and Safety reporting covers all employees and includes combined data from Valmet and the companies acquired in 2019.

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 aims to cover its contractors' 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 an employee's career at Valmet, ensuring our people continuously develop their competence. We see that success starts with people – strong teams form the foundation for 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	<p>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.</p> <p>We continuously look for 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% occurs through on-the-job learning, 20% through learning relationships, and 10% through structured learning.</p> <p>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.</p> <p>The Valmet community is a diverse one. 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.</p>
Responsibilities	<p>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.</p> <ul style="list-style-type: none"> • 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 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.
Specific actions	The people and performance progress table and key achievements for 2019 can be found on the Sustainability 360° agenda progress on page 34. 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 on our material topics. 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.
Topic boundaries	<p>Within the organization (entire Group): Valmet has around 13,600 employees in 35 countries around the world. The largest countries in terms of headcount are Finland, China, Sweden, USA and Brazil.</p> <p>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 areas such as South America, China and Asia-Pacific.</p>

Sustainable solutions

Management approach	<p>We provide our customers with sustainable solutions that help to improve their safety and environmental performance. Based on life cycle analysis (LCA) of selected product families, we estimate that around 95% of the environmental impacts of Valmet's entire value chain are emitted when Valmet's solutions are being used for production at the customer sites. Choosing efficient production technologies therefore plays a key role in mitigating climate impacts. 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.</p> <p>Our approach is that 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.</p>
Reported topics and indicators	<p>Customer health and safety: GRI 416-1 Socio-economic compliance: GRI 419-1 Material Valmet topic: Environmental impacts of products and services</p>
Goals and targets	<p>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:</p> <ul style="list-style-type: none"> • Create technologies and services that enhance renewable raw materials, and water and energy efficiency: <ul style="list-style-type: none"> – Orders from new products and services >25% of total orders received until 2021 – Selected fossil-based product parts to be replaced with renewable or recyclable materials • Actively promote sustainability benefits of Valmet's offering to meet customers' needs <ul style="list-style-type: none"> – Increased awareness on sustainability benefits of Valmet's offering among customers
Responsibilities	<ul style="list-style-type: none"> • 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 CEO. • The Vice President of Research and Development is responsible for managing Valmet-level R&D functions. He reports to the Senior Vice President for Human Resources and Operational Development. • Each business line has a person or persons coordinating R&D within the business line. • Each technology unit within the business line has technology and/or R&D responsables for product development. • The Valmet R&D Management Team, consisting of technology/R&D responsables 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.
Specific actions	<p>Read more about the "Sustainable solutions" focus area on pages 50–53 of the Annual Review. The Sustainable solutions progress table and key achievements in 2019 can be found on the Sustainability 360° agenda progress on page 34. The action plan for 2019–2021 can be found on Valmet's website.</p>
Evaluation of management approach	<p>The management approach is assessed continuously as part of our operations, and processes are improved accordingly to ensure that the set goals are achieved. The improvement actions taken in 2019 include:</p> <ul style="list-style-type: none"> • A new R&D project portfolio management tool in full and active use in three business lines, and implementation started for the fourth • Promoting the use of guidelines for sustainable and responsible research, product development and design in Valmet.
Topic boundaries	<p>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. Two locations were removed from the reporting scope in 2019 due to changes in operations. They were also removed from the historical data.</p> <p>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.</p>

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	<ul style="list-style-type: none"> • We ensure our global human rights compliance through a due diligence framework <ul style="list-style-type: none"> – 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 <ul style="list-style-type: none"> – Maintain our position as an industry leader in sustainability and further develop sustainability reporting – 100% of white-collar employees complete the sustainability e-learning to understand and promote their role in Valmet’s sustainability – Collaborate actively with stakeholders
Responsibilities	<ul style="list-style-type: none"> • 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 CEO.
Specific actions	Read more about the “Corporate citizenship” focus area on pages 56–59 of the Annual Review. The Corporate citizenship progress table and key achievements in 2019 can be found on the Sustainability 360° agenda progress on page 35. The action plan for 2019–2021 can be found on Valmet’s website.
Evaluation of management approach	<p>The management approach to anti-corruption is assessed continuously as part of our operations and processes. The improvement actions taken in 2019 include:</p> <ul style="list-style-type: none"> • Initiated two new social responsibility programs • Updated Valmet’s Code of Conduct • Two human rights impact assessments conducted by an independent third party in Indonesia and China • Continued implementation of sustainability training for all Valmet employees through three different e-learning modules: Sustainability at Valmet; Sustainable supply chain; and Developing and selling sustainable solutions
Topic boundary	<p>Within the organization (entire Group): all Valmet functions and employees work in compliance with our Code of Conduct to create added value in an ethical manner to our broad stakeholder base globally.</p> <p>Outside the organization: Valmet has truly global operations in around 35 countries and a broad stakeholder base in all market areas. We provide added value to our stakeholders in the form of dividends, jobs and business opportunities, for instance. The biggest countries in terms of headcount and net sales are Finland, China, Sweden, USA and Brazil.</p>

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 of Valmet's operations. One tool for risk assessments are FRIME audits, which cover annually 5 key units and circa 80% of Valmet's turnover within 5-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 relate to financial impacts and reputation.

Energy consumption within the organization (GRI 302-1¹, GRI 302-3²)

GRI 302-1: Fuel consumption

TJ	2019	2018	2017
Renewable fuels	0	2	2
Non-renewable fuels	304	298	281
Total	304	300	283

GRI 302-1: Energy consumption by source

TJ	2019	2018	2017
Electricity	787	820	783
Heating	227	231	232
Steam	21	25	30
Total	1,035	1,076	1,044

GRI 302-1: Energy sold

TJ	2019	2018	2017
Electricity	10	10	13
Heating	0	2	10
Total	12	12	23

GRI 302-1: Total energy consumption

TJ	2019	2018	2017
	1,339	1,374	1,323

GRI 302-3: Energy intensity

	2019	2018	2017
TJ/ MEUR Net sales	0.38	0.41	0.42

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 transportations is comparatively minor and is excluded from fuel consumption amounts.

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

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

Based on life cycle analysis (LCA) of selected product families, we estimate that around 95% of the environmental impacts of Valmet's entire value chain, including water impacts, occur when Valmet's solutions are being used for production at the 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 technology 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 locate inside managed industrial estates. Based on an analysis using the World Business Council for Sustainable Development Global Water Tool our impact on water stress areas is minimal.

The remaining four percent of our water impact is from the supply chain, and Valmet has a systematic process for engaging with key suppliers to improve their water management practices. Read more in our Annual Report on page 38.

Water withdrawal (GRI 303-3 (2018)¹)

GRI 303-3: Water withdrawal

1,000 m ³	2019	2018	2017
Municipal water	488	519	501
Surface water	1,983	2,512	2,519
Other ²	14	29	22
Total	2,485	3,060	3,042

¹ Municipal supplies and other water utilities are reported by each unit based on invoicing. Surface water consumption is in some cases estimated based on pump capacity. Ground water and rain water are based on local records and methodologies.

² Ground water, 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	2019	2018	2017
Scope 1 ²	17.6	17.7	16.8
Scope 2 (location based) ³	69.0	71.2	68.2
Scope 2 (market based) ⁴	83.0	87.5	91.5

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

1,000 tCO ₂	2019	2018	2017
Category 1: CO ₂ emissions from purchased goods and services ⁶	2,618	2,025	1,665
Category 4: CO ₂ emissions from upstream transportation and distribution ⁷	76	63	60
Category 6: CO ₂ emissions from business travel ⁸	38	34	32
Category 9: CO ₂ emissions from downstream transportation and distribution ⁹	13	11	11

GRI 305-4: Greenhouse gas (GHG) emissions intensity (Scope 1 and 2)¹⁰

	2019	2018	2017
1,000 tCO ₂ /MEUR Net sales	0.024	0.027	0.028

¹ Only CO₂ is included in the calculation. The amount of Biogenic Scope 1 emissions is 1.5% of total Scope 1 emissions. The base year reference is the yearly average CO₂ emissions for 2005–2009: 32,000 tCO₂ (Scope 1) and 91,600 tCO₂ (Scope 2, location based). A yearly average is taken to ensure that the baseline is a representative yearly consumption across the business cycle. The methodology used to calculate emissions is direct measurement of energy sources consumed based on invoicing at the location level and conversion to CO₂ emissions.

² Scope 1 emissions are based on default CO₂ emission factors for combustion from the "2006 IPCC Guidelines for National Greenhouse Gas Inventories, Volume 2 Energy".

³ Location based CO₂ emission factors are based on an average value from 2011–2013 as given by the International Energy Agency (IEA) in "CO₂ Emissions from Fuel Combustion Highlights 2015".

⁴ Valmet calculated market-based CO₂ emission for the first time in 2016. The following emissions factors have been applied to the 2017 data: "eGRID 2016 Subregion GHG Output Emission Rates" (United States Environmental Protection Agency), "China eGRID 2017 Emission Output Rates" (Clean Development Mechanism China), "CO₂ emission factors of the National Interconnected System of Brazil" for 2017 (Brazilian Technology and Science Ministry) and "European Residual Mixes 2017" (Association of Issuing Bodies). The following emissions factors have been applied to the 2018 and 2019 data: "eGRID 2018 Subregion GHG Output Emission Rates" (United States Environmental Protection Agency), "China eGRID 2017 Emission Output Rates" (Clean Development Mechanism China), "CO₂ emission factors of the National Interconnected System of Brazil" for 2018 (Brazilian Technology and Science Ministry) and "European Residual Mixes 2018" (Association of Issuing Bodies). In Portugal and Canada supplier specific emission factors and in Thailand, Indonesia and Australia location-based factors were applied for all three years of calculations.

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 of purchased goods and services is based on 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% (2018: 99%) of Valmet's total direct supplier spend.

⁷ The analysis on 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. Upstream transportation and distribution data used covers approximately 91% of Valmet's total supplier spend. The calculated transportation modes include air, train, ocean and road transportation.

⁸ The analysis of business travel emissions is based on emission, mileage and spend data from travel agencies. The business air travel data used covers Finland, Sweden, Denmark, Norway, Italy, USA, Canada, China, Germany, France, Portugal, UK, Spain, Turkey, Netherlands, South Africa, United Arab Emirates, Japan, Thailand, India, Indonesia and represents 87% (2018: 75%) of Valmet's global workforce. For other business travel modes, including rented vehicle, compensated mileages as well as hotel nights, data used covers Finland, Sweden, Italy, USA, Canada, China, Germany, France, Portugal and UK, and represents 79% of Valmet's global workforce.

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% of total transportation emissions.

¹⁰ Emissions intensity is calculated on location-based emission factors. The ratio covers includes CO₂ gases from direct (Scope 1) and energy indirect (Scope 2) emissions.

NO_x, SO_x and other significant air emissions (GRI 305-7¹)

GRI 305-7¹: NO_x, SO_x and other significant air emissions

t	2019	2018	2017
Hazardous air pollutants (HAP)	1.6	2.1	1.8
NO _x	13.2	14.8	17.4
Particulate Matter (PM)	10.8	7.1	8.5
SO _x	0.6	1.4	1.9
Volatile organic compounds (VOC)	73.3	77.9	62.1
Others standard categories	1.2	1.8	1.9

¹ Significant air emissions are defined as those listed in environmental permits of local operations. Calculations are based on published emissions factors.

Total weight of waste by type and disposal method (GRI 306-2¹)

GRI 306-2: Hazardous waste

1,000 t	2019	2018	2017
Reuse	0.12	0	0
Recycling	0.57	0.76	0.59
Energy recovery	0.17	0.06	0.15
Incineration	1.63	1.59	1.22
Landfill	0.16	0.26	0.35
Other ²	0.31	0.20	0.11
Total	2.96	2.87	2.42

GRI 306-2: Non-hazardous waste

1,000 t	2019	2018	2017
Reuse	7.05	7.69	7.36
Recycling	15.04	20.11	17.61
Energy recovery	2.45	2.44	2.06
Incineration	0.48	0.21	0.17
Landfill	11.34	13.2	12.46
Other ²	0.6	0.24	0.7
Total	36.96	43.91	40.36

GRI 306-2: Total waste

1,000 t	2019	2018	2017
	39.92	46.77	42.78

¹ Waste disposal method is determined based on information provided by the waste disposal contractor according to national classification regulations.

² Other includes composting, deep well inject or on site storage.

Environmental impacts of products and services (Material Valmet topic)

Based on life cycle analysis (LCA) of selected product families, we estimate that around 95% of the environmental impacts of Valmet's entire value chain occur when Valmet's solutions are being used for production at customer sites.

Since Valmet's solutions are relatively 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.

Renewable roll covers

Roll covers used in paper, board, tissue and pulp making need periodic renewal and thus consume tonnes of materials. A major part of the raw materials of traditional roll covers has been manufactured from fossil-based materials refined and processed from crude oil. Following intensive R&D work, Valmet is now ready to bring to market the first polymeric roll covers manufactured from sustainable raw materials. Depending on cover type, the content of bio-based and/or recycled raw material is 75–96%.

Sleeve roll

The sleeve roll is a new technology for the board or paper machine forming section to improve the dewatering process. Sleeve roll technology provides higher forming section capacity, improves paper strength and decreases energy consumption. By using sleeve roll technology, vacuum energy consumption can be decreased by 30–60 % depending on the former type, and at the same time, the forming section drive power will be more than 50% lower. Improved paper strength creates opportunities for

raw material savings. The first sleeve roll production references will be started up in 2020.

Sulfuric acid plant

Most mills use sulfuric acid in certain process steps, e.g. tall oil and chlorine dioxide production. Valmet recently launched sulfuric acid technology for kraft pulp mills. The process is based on the sulfur content in internally collected gases, “non-condensable” gases and methanol, so that the sulfuric acid to be used is produced from internal sources. By applying this technology, mills can reduce their emissions of ash and save expensive sodium-containing chemicals.

Wastewater measurements

The new real-time measurement for wastewater biosolids provides even more savings in energy and chemical consumption, with resulting environmental benefits. Valmet Total Solids Measurements have gained an excellent reputation around the world for solids pumping control, thickening, digesting, dewatering and dry cake applications. The newest 4th-generation measurement, based on digital microwave technology with new sensor types, is applicable for a wide range of municipal and industrial wastewater plant applications with a higher conductivity range.

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

New hires¹

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

	New hires	New hires, %
Under 30	694 (730)	41.0 (45.6)
30-50	826 (751)	48.8 (46.9)
Over 50	174 (120)	10.2 (7.5)
Total	1694 (1601)	100.0 (100.0)

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

	New hires	New hires, %
Female	440 (429)	26.0 (26.8)
Male	1254 (1172)	74.0 (73.2)
Total	1694 (1601)	100.0 (100.0)

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

	New hires	New hires, %
North America	205 (111)	12.1 (6.9)
South America	86 (46)	5.1 (2.9)
EMEA	1080 (1165)	63.7 (72.8)
China	193 (191)	11.4 (11.9)
Asia-Pacific	130 (88)	7.7 (5.5)
Total	1694 (1601)	100.0 (100.0)

¹ New hires calculation: (new hires per category/total number of new hires in 2019) *100
New hires includes summer trainees.

Turnover²**GRI 401-1: Total number of leavers and turnover rate by age**

	Number of leavers	Turnover, %
Under 30	449 (458)	33.0 (37.0)
30-50	523 (480)	7.3 (6.7)
Over 50	430 (326)	8.5 (7.5)
Total	1,402 (1,264)	10.3 (9.9)

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

	Number of leavers	Turnover, %
Female	347 (337)	12.5 (12.6)
Male	1,055 (927)	9.8 (9.2)
Total	1,402 (1,264)	10.3 (9.9)

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

	Number of leavers	Turnover, %
North America	205 (140)	12.0 (11.5)
South America	58 (58)	10.6 (11.5)
EMEA	914 (877)	10.6 (10.3)
China	150 (133)	8.3 (7.6)
Asia-Pacific	75 (56)	8.3 (7.3)
Total	1,402 (1,264)	10.3 (9.9)

² Turnover rate calculation: (number of leavers/total number of employees per category as of December 31, 2019) *100.
Turnover includes summer trainees.

Hazard identification, risk assessment, and incident investigation (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, as well as 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 in monthly reporting.

Managers and workers are trained in how to perform risk assessments, and 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 ensure the quality of hazard identification, risk assessment and incident investigation processes and ensures that improvements and learnings are shared globally.

Occupational health services (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, such as Jyväskylä, Ovar, Jiading, Tampere, Aracuaria and Karlstad, 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 (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 (2018): Percentage of employees represented in formal joint management-worker health and safety committees

	Headcount, %
North America	87 (97)
South America	100 (93)
EMEA	97 (93)
China	100 (99)
Asia-Pacific	88 (82)
Total	96 (93)

Worker training on occupational health and safety (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 competency tests during the training session.

We have two mandatory global training programs, both available in the main employee languages. All employees complete the Safety at Valmet awareness e-learning during their onboarding. This e-learning covers Valmet’s HSE policy and objectives, an exercise on personal risk tolerance, and our approach to risk, incident and emergency management. This e-learning is also available for all external workers in our PartnerAcademy platform. All Valmet employees are also expected to participate in the Safety Dialogue training during 2020 (read more in the Annual Report on pages 42 and 45). In this program, managers and employees explore attitudes, behaviors and skills for promoting a positive safety culture in 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 HSE inductions. During onboarding, inductions in local languages are held for the Valmet location and the specific 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 English if required. In addition, everyone working for Valmet is required to complete customer mill inductions.

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 (403-6 (2018))

Valmet facilitates employees’ access to non-medical and health-care 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, the employer of those workers facilitates their access to these services.

Prevention and mitigation of occupational health and safety impacts directly linked by business relationships (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 AR on page 42. The GMS is audited through a number of Group-wide internal processes, including risk management, logistics, HSE, corporate internal, 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, ISO 14001 and OHSAS 18001 standards, but to varying scopes of coverage, see table on the following page. We are continually expanding our coverage, and the target is that all production locations and at least 90% of all workers are covered by the system by 2025. We have defined an expansion roadmap toward this target. Currently, the OSHAS 18001 certification covers all major production locations and project installations.

GRI 403-8: Workers covered by a certified management system¹

	2019	2018	2017
ISO 9001:2015 (Quality management)	87	87	85
ISO 14001:2015 (Environmental management)	71	77	73
OHSAS 18001:2007 (Occupational health and safety management)	62	67	59

¹ Includes the operations acquired in 2019.

Work-related injuries (GRI 403-9 (2018))

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 (page 15). These standards are designed to ensure the hierarchy of controls is implemented

in all operations to eliminate hazards and minimize risks. In 2019, there was one high-consequence injury related to the use of tools and equipment. Valmet's operations continuously implement injury prevention actions as part of annual improvement plans.

GRI 403-9: Number of hours worked by area (employees)²

	2019	2018	2017
North America	2,996,960	2,320,000	2,426,560
South America	1,023,520	1,010,080	1,045,600
EMEA	16,467,678	15,916,146	15,395,524
China	3,397,760	3,315,840	3,236,864
Asia-Pacific	1,634,880	1,425,280	1,355,808
Total	25,520,798	23,987,346	23,460,356

GRI 403-9: Number of hours worked by area (external workers)³

	2019	2018	2017
North America	302,288	24,494	118,308
South America	1,158,403	900,205	2,787,643
EMEA	4,577,988	6,419,378	5,411,930
China	942,877	575,313	227,282
Asia-Pacific	347,515	221,115	753,988
Total	7,329,071	8,140,505	9,299,151

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

	2019	2018	2017
Employees	0	0	0
External workers	0	0	0

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 calculated based on both theoretical and actual workhours.

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

	2019	2018	2017
North America	1	0	0
South America	0	0	0
EMEA	0	2	0
China	0	0	0
Asia-Pacific	0	0	0
Total	1	2	0

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

	2019	2018	2017
North America	0	0	0
South America	0	0	0
EMEA	2	1	0
China	0	1	0
Asia-Pacific	0	0	0
Total	2	2	0

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

	2019	2018	2017
North America	17	9	10
South America	2	4	5
EMEA	80	74	91
China	10	14	18
Asia-Pacific	2	5	4
Total	111	106	128

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

	2019	2018	2017
North America	5	0	1
South America	5	10	17
EMEA	54	60	70
China	0	5	1
Asia-Pacific	3	0	3
Total	67	75	92

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 either 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 high-consequence work-related injuries by area (employees)⁶

	2019	2018	2017
North America	0.3	0.0	0
South America	0.0	0.0	0
EMEA	0.0	0.1	0
China	0.0	0.0	0
Asia-Pacific	0.0	0.0	0
Total	0.04	0.1	0

GRI 403-9: Rate of high-consequence work-related injuries by area (external workers)⁶

	2019	2018	2017
North America	0.0	0.0	0
South America	0.0	0.0	0
EMEA	0.4	0.2	0
China	0.0	1.7	0
Asia-Pacific	0.0	0.0	0
Total	0.3	0.2	0

GRI 403-9: Lost time incident frequency, LTIF, by area (own employees)⁷

	2019	2018	2017
North America	2.3	0.4	1.6
South America	0.0	1.7	1.9
EMEA	2.6	2.8	3.3
China	1.2	1.5	1.5
Asia-Pacific	0.6	0.8	0
Total	2.1	2.3	2.6

GRI 403-9: Lost time incident frequency, LTIF, by area (external workers)⁷

	2019	2018	2017
North America	3.3	0	8.5
South America	2.6	7.7	1.8
EMEA	8.1	5.3	7.4
China	0.0	3.5	4.4
Asia-Pacific	2.9	0	2.7
Total	5.7	5.3	5.3

⁶ Rate of high-consequence work-related injuries is based on number of high-consequence injuries per million hours worked.

⁷ LTIF is based on number of work-related injuries resulting in at least one calendar day away from work per million hours worked.

GRI 403-9: Total recordable incident frequency, TRIF, by area (own employees)⁸

	2019	2018	2017
North America	5.7	3.9	4.1
South America	2.0	5.1	4.8
EMEA	4.9	4.6	5.9
China	2.9	4.2	5.6
Asia-Pacific	2.9	2.4	3.0
Total	4.3	4.4	5.5

GRI 403-9: Total recordable incident frequency, TRIF, by area (external workers)^{8,9}

	2019	2018	2017
North America	16.5	0	8.5
South America	4.3	11	6.1
EMEA	11.8	9.3	12.9
China	0.0	8.7	4.4
Asia-Pacific	8.6	0.0	4.0
Total	9.1	9.2	9.9

⁸ TRIF is based on the number of recordable work-related injuries per million hours worked.

⁹ Data has been restated for 2017 and 2018

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

In 2019, one case of skin disease and five cases of tendonitis were diagnosed by local social insurance and workers compensation authorities.

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

	2019	2018	2017
Employees	0	0	0
Total	0	0	0

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

	2019	2018	2017
North America	0	0	0
South America	0	0	0
EMEA	6	1	1
China	0	0	0
Asia-Pacific	0	0	0
Total	6	1	1

GRI 403-10: Absentee rate by area (employees)³

%	2019	2018	2017
North America	2.4	2.3	2.2
South America	1.0	0.8	0.7
EMEA	3.2	3.3	3.1
China	1.0	1.0	0.9
Asia-Pacific	1.2	1.2	1.1
Total	2.6	2.6	2.5

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.

³ 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 area (employees)⁴

	2019	2018	2017
North America	0	0	0
South America	0	0	0
EMEA ⁵	0.4	0.1	0.1
China	0	0	0
Asia-Pacific	0	0	0
Total	0.2	0.1	0.1

⁴ Occupational disease rate is based on the number of recordable cases of work-related ill health per million hours worked.

⁵ Data from Sweden and Germany is omitted due to data privacy issues.

Training hours (GRI 404-1)

The average number of training hours for a Valmet employee in 2019 was 14.9 hours (females 14.3 hours, males 15.1 hours). In addition, we have provided 21,020 hours (females 4.1 hours, males 3.7 hours) of training to 1213 key/end users to support the implementation of our ERP project. 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% occurring through on-the-job learning, 20% through learning relationships, and 10% 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	97.1 (97.8)	97.2 (97.6)	97.1 (97.7)
Senior management	96.8 (100.0)	100.0 (99.2)	99.4 (99.4)
Managerial and specialist	97.1 (97.8)	97.1 (97.6)	97.1 (97.6)
Blue-collar	66.7 (71.0)	37.4 (39.2)	41.6 (44.3)

Employee category definitions

White-collar has the following two sub-categories:

- Senior Management: Executive and senior management roles responsible for strategy development and long-term operational plans.
- Managerial and Specialists: Functional and department managers, team leaders, supervisors and white-collar specialist roles.

Blue-collar: Workers in operational roles, mainly in manufacturing and field service.

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

GRI 405-1: Board of Directors

Years	Female total, %	Male total, %	Total, %
Under 30	0 (0)	0 (0)	0 (0)
30–50	12.5 (14.3)	0 (0)	12.5 (14.3)
Over 50	37.5 (28.6)	50.0 (57.1)	87.5 (85.7)
Total	50.0 (42.9)	50.0 (57.1)	100.0 (100.0)

GRI 405-1: Executive Team

Years	Female total, %	Male total, %	Total, %
Under 30	0 (0)	0 (0)	0 (0)
30–50	7.7 (14.3)	7.7 (21.4)	15.4 (28.6)
Over 50	7.7 (0)	76.9 (71.4)	84.6 (71.4)
Total	15.4 (14.3)	84.6 (85.7)	100.0 (100.0)

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

	Female total, %	Male total, %	Total, %	Total
White-collar	16.0 (15.8)	55.0 (54.6)	71.1 (70.5)	9.662 (8.826)
Senior management	0.2 (0.2)	1.0 (1.1)	1.2 (1.3)	166 (161)
Managerial and specialist	15.8 (15.6)	54.0 (53.6)	69.8 (69.2)	9.496 (8.665)
Blue-collar	4.4 (4.5)	24.5 (25.0)	28.9 (29.5)	3.936 (3.702)
Total	20.5 (20.3)	79.5 (79.7)	100.0 (100.0)	13.598 (12.528)

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

	Age in years			Total, %	Total
	Under 30, total, %	30–50, total, %	Over 50, total, %		
White-collar	6.2 (6.0)	37.8 (40.2)	27.0 (24.3)	71.0 (70.5)	9.662 (8.826)
Senior management	0 (0)	0.5 (0.6)	0.6 (0.7)	1.1 (1.3)	166 (161)
Managerial and specialist	6.2 (6.0)	37.3 (39.6)	26.3 (23.6)	71.8 (69.1)	9.496 (8.665)
Blue-collar	3.8 (3.8)	15.0 (16.3)	10.2 (9.5)	29.0 (29.5)	3.936 (3.702)
Total	10.0 (9.7)	52.8 (56.5)	37.2 (33.8)	100.0 (100.0)	13.598 (12.528)

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

Nationality	Total, %
Finnish	38.0 (39.7)
Chinese	13.2 (13.9)
Swedish	11.8 (12.1)
American	10.1 (7.7)
Brazilian	3.9 (3.9)
Indian	2.9 (2.1)
Portugese	2.8 (2.9)
Canadian	2.0 (1.5)
German	2.0 (2.1)
Spanish	1.9 (1.9)

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 relate to freedom of association, possible use of forced labor, and occupational health and safety. Valmet has also acknowledged that countries such as China, India, Indonesia and Thailand, 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 part of the indicators assessed to define 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 an independent, certified 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 supplier approval process globally. Valmet's key performance indicators related to the sustainable supply chain are integrated in the global supplier sustainability management process. In 2019, 99% (84%) of all new direct suppliers were automatically screened on sustainability. The remaining suppliers have been manually assessed regarding 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 2019.

Independent Limited Assurance Report to the Management of Valmet Corporation

Scope of Engagement

Valmet Corporation (“Valmet”) commissioned **DNV GL Business Assurance Finland OY/AB** (“DNV GL”) to conduct a limited assurance engagement over Selected Information presented in the Valmet Corporation’s Financial Statements, Annual Review and GRI Supplement 2019 (the “Report”) for the reporting period 1st January to 31st December 2019.

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 2019 and key sustainability performance indicators and metrics presented in Valmet Annual Review 2019 and GRI Supplement 2019. The indicators that have been assured as part of the scope of work are all the non-financial disclosures in the pages 9–13 in the Report of the Board of Directors and selected GRI-based sustainability disclosures identified with ‘x’ in the Assurance column of the GRI content index in Valmet GRI Supplement 2019 in the pages 2–9 (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 (2016, 2018) and Valmet’s reporting principles, (the “Criteria”, see page 1 in Valmet GRI Supplement 2019).

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 relates only to the Selected Information, and is to be read in the context of this Assurance Report, in particular 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 GL applies its own management standards and compliance policies for quality control, in accordance with ISO/IEC 17021:2011 - 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, so that the risk of this conclusion being in error is reduced, but not reduced completely.

Basis of our conclusion

We are required to plan and perform our work in order 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. Three site visits were conducted in China, France and Japan. DNV GL were free to choose the sites on basis of 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 is 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 GL 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 GL established policies and procedures are designed to ensure that DNV GL, its personnel and – where applicable – others are subject to independence requirements (including personnel of other entities of DNV GL) 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 multi-disciplinary team consisted of professionals with a combination of environmental and sustainability assurance experience.

Responsibilities of the Management of Valmet and DNV GL

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 GL Business Assurance Finland OY/AB
Espoo, Finland

14th February 2020

Mikael Niskala
Lead Auditor

Souvik Kumar Ghosh
Principal Consultant
and Reviewer

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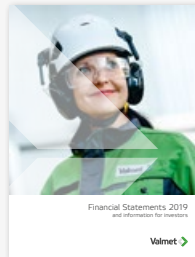
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Valmet reports 2019



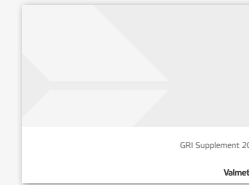
ANNUAL REVIEW 2019

The report covers Valmet's market environment and the progress of its strategy, operations and sustainability in 2019.



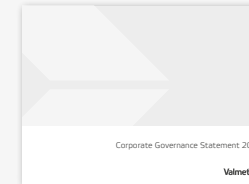
FINANCIAL STATEMENTS 2019 AND INFORMATION FOR INVESTORS

The report includes Valmet's Financial Statements for 2019 and information about its share, shareholders and management.



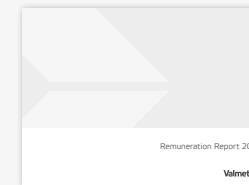
GRI SUPPLEMENT 2019

The report includes Valmet's sustainability reporting indicators and principles, and its alignment with the Global Reporting Initiative (GRI) Standards framework in 2019.



CORPORATE GOVERNANCE STATEMENT 2019

The report covers Valmet's governance principles and activities, Board of Directors and management in 2019.



REMUNERATION REPORT 2019

The report covers Valmet's remuneration in 2019.

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The Nordic Ecolabel ensures that products that are used in printed matter fulfill certain criteria. Inks are mineral-oil free, and for all other materials, those that are recyclable and environmentally friendly are preferred.

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PAPER

Maxioffset 250 g

Maxioffset 120 g

PRINTING

Grano Oy



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