

VOLVO GROUP
SUSTAINABILITY DISCLOSURES

GRI 2019



Volvo Group's Annual and Sustainability Report 2019 includes sustainability disclosures in an integrated manner. This document collects these disclosures, and in some areas complements

with more detailed information on management approach and data. Global Reporting Initiative's (GRI) Standards have been chosen to report according to application level 'Core'.

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SUSTAINABILITY NOTES

General Disclosures

ORGANIZATIONAL PROFILE

102-1 Name of the organization

The name of the company issuing this report is AB Volvo (publ). The company is the parent company of the Volvo Group.

102-2 Activities, brands, products and services

The Volvo Group is one of the world's leading manufacturers of trucks, buses, construction equipment and marine and industrial engines. The Group also provides complete solutions for financing and service. The brand portfolio consists of Volvo, Volvo Penta, UD Trucks, Terex Trucks, Renault Trucks, Prevost, Nova Bus, Mack and Arquus. Joint ventures are held with the SDLG, Eicher and Dongfeng brands. More information is available on pages 2–3 in the Annual and Sustainability Report.

102-3 Location of headquarters

The Volvo Group is headquartered in Gothenburg, Sweden.

102-4 Location of operations

The Volvo Group has production facilities in 18 countries and sells its products in more than 190 markets. The company was founded in Sweden in 1927 where the Volvo Group still operates a significant part of its operations. Other significant operations are found in the US, Brazil, India, France, Japan and China. For more information about major production facilities, please refer to page 59 of the Annual and Sustainability Report 2019.

102-5 Ownership and legal form

AB Volvo (publ) is a publicly-held company, and its shares are listed on the stock exchange Nasdaq Stockholm, Sweden.

102-6 Markets served

The Volvo Group sells its products in more than 190 countries. The Group's five largest markets are the US, France, United Kingdom, Japan and Germany. Please refer to page 129 of the Annual and Sustainability Report 2019 to view the share of net sales by market and business area.

102-7 Scale of the organization

Volvo Group's net sales amounted to SEK 432 billion in 2019. See page 128 of the ASR19 for segment reporting.

Number of products delivered in 2019 was: Trucks 232,769; Construction Equipment 86,885; Buses 9,731; Marine engines 18,135; Industrial engines 21,324. See page 56 and 71 of the the Annual and Sustainability Report 2019.

102-8 Information on employees and other workers

Total number of employees by employment contract, by gender and region

	Permanent		Temporary		Agency/ consultants	Total work- force
	Men	Women	Men	Women		
Europe	39,795	10,332	741	339	6,485	57,692
North America	14,172	3,578	144	42	718	18,654
South America	4,561	905	397	84	131	6,083
Asia	14,435	3,388	819	116	1,160	18,958
Africa and Oceania	1,841	528	91	83	55	2,598
Group total	74,844	17,731	2,192	669	8,549	103,985

Total number of employees by employment type, by gender

	Full time		Part time		Total
	Men	Women	Men	Women	
Group total	76,407	17,296	813	920	95,436

The employee data above has been extrapolated from different sources. The financial consolidation system does not include data on employment type. The ratio of women and men by employment contract and region has been collected from human resource systems and then applied to the number of registered employees as reported in the financial systems per December 31, 2019.

102-9 Supply chain

As one of the world's leading manufacturers of trucks, buses, construction equipment and marine and industrial engines, the Volvo Group is highly reliant on robust global and local supply chains to deliver components, parts and complete services and systems.

In 2019, the Volvo Group bought goods and services for SEK 299.6 billion and 2.5 billion parts were delivered to production plants around the world. In total, around 51,000 Tier 1 suppliers deliver products and services to the Volvo Group, for more information about supply chain management, please refer to pages 54–55 of the Annual and Sustainability Report 2019.

102-10 Significant changes to the organization and its supply chain

No significant changes of the Group's organization or supply chain have affected the reporting set out herein for 2019.

102-11 Precautionary principle or approach

The Volvo Group applies a precautionary principle in its work with continuous improvements. This is exemplified by the life-cycle management approach taken when developing trucks, buses, construction equipment and other vehicles and machinery. Applying life-cycle approach provides insights for decision making on environmental gains and potential trade-offs. This approach is the foundation for the Volvo Group Environmental Policy.

102-12 External initiatives

The Volvo Group is a signatory of the UN Global Compact. It further recognizes and supports several international conventions and principles, including the International Bill of Human Rights, the ILO eight fundamental conventions, the UN Guiding Principles on Business and Human Rights and the OECD Guidelines for Multinational Enterprises. In addition, the Group participates in a number of global, regional and local initiatives to advance its main industries in terms of sustainability.

The Climate Savers program by the WWF is one of the most commonly known initiatives where the Group has established targets and activities to transform its operations and products to contribute to a low carbon future. In addition, the different business areas within the Volvo Group have initiated a number of magnifiers using business to drive clean technology innovation, read more on volvogroup.com/climate.

The Group also aligns and communicates its work with the UN Sustainable Development Goals, see pages 33–37 in the Annual and Sustainability Report.

102-13 Membership of associations

The Volvo Group Code of Conduct is the foundation of memberships and partnerships with NGOs, civil society, as well as trade associations.

The Group's memberships can be summarized in the below categories:

- National and transnational chambers of commerce
- Equipment and machinery manufacturers' associations
- Associations of transport and logistics companies
- Technical associations for development of various vehicle drivelines, (e.g. electric vehicles, gas vehicles and combustion engine vehicles)
- Automotive federations and associations
- Standardization associations
- Employment, education and vocational training
- Alternative fuels and energy storage
- Public debate forums and discussions boards
- Organizations for road safety, environmental protection and scientific advancements

An updated list of specific memberships 2019–2020 can be made available upon request.

STRATEGY

The Volvo Group's mission is to "Drive prosperity through transport solutions". The Group's products and services are continuously developed to support sustainable societies and the well-being and safety of people. With this mission in mind, the Volvo Group strives to achieve its vision to be the most desirable and successful transport solution provider in the world. The Volvo Group's aspirations are to have leading customer satisfaction for all of its brands in each segment; to be the most admired employer in the industry and to have industry leading profitability.

The Group's values – Customer Success, Trust, Passion, Change and Performance – are the cornerstone of the Group's company culture. The Volvo Group Code of Conduct clearly defines expectations on the way the Group runs its business – not just in a few places, but wherever the Group operates. The Code of Conduct summarizes

what the Volvo Group stands for and what Volvo expects from its employees. Seven strategic priorities set the direction for the Group. They describe the key fundamentals of the Volvo Group strategy such as customer focus, decentralization, empowerment and profit and loss responsibility for its brand organizations, continuous improvements as well as the importance of utilizing the Group strengths to increase synergies, profitability and to take leadership in key technologies. Based on the Group's strategic priorities, each Business Area defines its own operational plans. The long-term plans, such as the Group's industrial and product plans, are also crucial parts of the Group's strategic direction.

Environmental, social and financial sustainability aspects as well as ethical business conduct are integrated in the Volvo Group's overall strategy and business model.

102-14 Statement from senior decision-maker

Collected from the CEO letter in the Volvo Group Annual and Sustainability Report on page 6–7.

"Population growth, urbanization, digitalization and a continuously expanding middle class are leading to increased transport needs and we must meet these increased needs sustainably. Efficiency improvements through new technologies will be necessary in helping us to resolve this, and our industry is undergoing what is perhaps its greatest transformation ever. We are driving rapid technology development in such areas as connected, electrified and autonomous vehicles. This development is also accompanied by new business models, which give us completely new opportunities to generate value for our customers and for society through transport solutions that are more efficient, safer and more sustainable. To meet the climate challenge, new and stricter legislation on carbon emissions from our products is also introduced. This contributes to driving the shift toward a more sustainable transport industry."

Martin Lundstedt, President and CEO, Volvo Group

102-15 Key impacts, risks, and opportunities

The Volvo Group deploys an Enterprise Risk Management (ERM) process to continuously identify risks and uncertainties for the Group's business operations. Essential strategic, operational, compliance and financial risks for the Group are reported in an integrated manner in the ERM section on pages 102–109 in the Annual and Sustainability Report 2019.

While the risks covered in the ERM section focus on the main strategic, operational, compliance and financial risks for the Volvo Group, the below lists the main sustainability impacts from the Volvo Group's activities. Where a relevant GRI standard exists, the impacts below are further detailed in the report as specific disclosures on pages 10–24.

Environmental impacts

The main environmental topics in the use phase of sold products is greenhouse gas emissions. This is mainly due to the usage of fossil fuels within conventional technologies. In operations and supply chain the main environmental topics relate to energy usage, waste, use of chemicals, freight emissions and resource scarcity.

Continuous efforts are made to reduce negative environmental impact of existing technologies and to take advantage of new technologies. For products, this includes improvement of existing technologies and the offering of alternative solutions, including electrified vehicles. All of which together presents significant market opportunities for the Volvo Group. Within operations and supply chain focus areas are to reduce environmental impacts by improving energy efficiency, increasing use of electricity from renewable sources, reducing waste to landfill, reducing freight emissions.

Employee related impacts other social impacts

The main impacts from the Volvo Group's activities in relation to employees are connected to occupational health and safety, employment, diversity, equal opportunities and development for employability and life-long learning.

Occupational safety is managed from the perspective that accidents can be prevented. The Volvo Group is a decentralized organization and each business is responsible for the management of occupational health and safety. Diversity and inclusion is a key element in preventing discrimination as well as a driver to increase employee commitment and performance. Another dimension of health and safety is that of customer and end user safety. The Volvo Group's safety ambition is zero accidents involving its products and vehicles. This is also an area associated with market opportunities.

On education, the Volvo Group supports individual development of employees to empower life-long employability. At the same time, the Volvo Group uses its business and operations to facilitate vocational training and higher technical education.

Human rights

Human rights impacts may materialize not only in the Volvo Group's operations, but also through business relationships and in the value chain. The Group is aware of that conducting business in certain parts of the world constitutes higher risks in relation to human rights and has identified certain countries where the Volvo Group has a substantial number of employees and/or close business partners, which are considered as high risk in this respect. The Group is also aware that potential linkage through the supply chain as well as Group products and services to segments such as the electronics industry, mining industry and heavy infrastructure projects constitutes higher risks for human rights violations. The Group works with due diligence to identify and mitigate negative human rights impacts within its operations and value chain, focusing on the areas where it has the highest risks to cause, contribute or be linked to adverse human rights impacts.

Social sustainability aspects is an increasingly important topic for our stakeholders and effective governance of human rights is key to the long-term business success of the Volvo Group.

Anti-corruption

The Volvo Group has business operations and do business, directly or indirectly, in many countries which can be considered as high risk from a corruption perspective. The Volvo Group Code of Conduct states that all Volvo Group entities shall compete in a fair manner on the merits of its products and services and that it is not allowed for employees or others that work on its behalf to participate in or endorse any corrupt practices. These principles of compliance are implemented through dedicated compliance programs, including specific anti-corruption compliance programs.

Ethical business conduct builds trust with customers, business partners and society, which is key to the Group's overall business success.

ETHICS AND INTEGRITY

102-16 Values, principles, standards, and norms of behavior

The Volvo Group Code of Conduct sets the requirements on how to conduct business and behave when representing the Volvo Group. In summary, the Code of Conduct includes requirements on:

- Mutual respect e.g. how we treat each other, health and safety at work, human and labor rights
- Earning business fairly and lawfully e.g. product compliance, competition law, anti-corruption
- Separating personal interests from business activities, e.g. political activities, insider dealing
- Safeguarding company information and communicating transparently and responsibly

The Code of Conduct is complemented by other policies that describe in more detail how to address its minimum standards. An e-learning is launched on an annual basis to support employees in understanding the expectations and requirements for how to do business in line with the Code of Conduct.

102-17 Mechanisms for advice and concerns about ethics

The Volvo Group offers various channels to internal and external stakeholders to report on potential ethical concerns or violations of the Volvo Group Code of Conduct and related policies.

A whistle-blower policy encourages all employees to report suspected violations to their managers or other management representatives. If reporting to superiors is not feasible or possible, or is not taken seriously, employees have the possibility of escalating suspected violations to Corporate Audit and the opportunity to remain anonymous where permitted by law. The Volvo Group does not tolerate retaliation against a person for making complaints in good faith of violations or suspected violations against the Code of Conduct.

The Group's whistle-blower process is publicly available on Volvogroup.com and can be used by all stakeholders.

Our values

Customer Success: We make our customers win.

Trust: We trust each other.

Passion: We have passion for what we do.

Change: We change to stay ahead.

Performance: We are profitable to shape our future.

Mission

Driving prosperity through transport solutions.

Vision

To be the most desired and successful transport solution provider in the world.

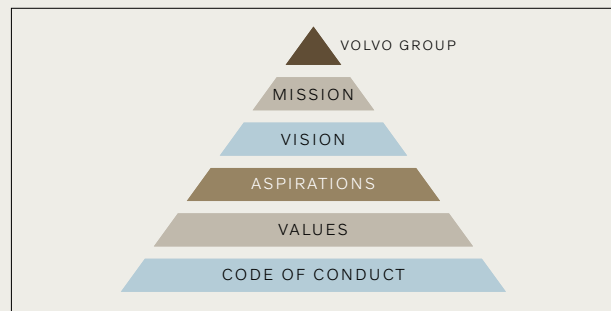
GOVERNANCE

102-18 Governance structure

The General Meeting of AB Volvo is the highest decision making body. At the General Meetings, the shareholders exercise their voting rights with regard to for example the composition of the Board of Directors of AB Volvo and the election of auditors. An Election Committee, appointed by the Annual General Meeting of AB Volvo, submits proposals to the General Meeting concerning the election of Board members and Board Chairman as well as proposals for resolutions concerning remuneration of the Board. The Board of AB Volvo is ultimately responsible for Volvo's organization and the management of its operations.

The Board of AB Volvo is responsible for the Group's long-term development and strategy, for regularly controlling and evaluating the Group's performance and for other duties set out in the Company's Act. In addition, the Board appoints the President and CEO of AB Volvo. The Board's work is mainly performed within the framework of formal Board meetings and through meetings in the respective committees of the Board, i.e. the Audit Committee, the Remuneration Committee and the Technology and Business Transformation Committee.

The CEO is in charge of the daily management of the Group in accordance with the guidelines provided by the Board and is authorized to make decisions on matters that do not require Board approval.



The CEO leads the operations of the Group mainly through the Group Executive Board and the extended Group Management Team. Key decisions relating to the Group's offering and technology portfolio are made by the Product Board and quality-related matters are addressed in the Quality Board in order to support fast decision making and customer focus in this area.

Another key component of the Group's governance is its policies and directives, such as the Code of Conduct and policies pertaining to investments, financial risks, accounting, financial control and internal audit, which contain Group-wide operating and financial rules for the operations, as well as responsibility and authority structures.

STAKEHOLDER ENGAGEMENT

102-40 List of stakeholder groups

Grouping of stakeholders and main means of interaction.

Customers

Customers are reached through daily interactions, customer satisfaction and brand image surveys, dialogue via social media, joint initiatives and trade associations, as well as thorough surveys and assessments from customer to Volvo Group.

Employees

Review of individual performance, employee engagement surveys, town hall meetings, internal webpages, Global Works Council meetings, internal online forums and discussions.

Investors

In this category we include both direct investors as well as analysts who follow and assess the Volvo Group. Dialogues are held in the form of capital market days, ad hoc investor meetings and specific dialogues, Annual General meeting, annual and interim reports, press releases and feedback, as well as questionnaires and surveys sent to Volvo Group.

Business partners and suppliers

In this context, business partners are industrial peers in collaboration activities and initiatives such as academic partner programs, industry organization memberships and research programs. Dialogues with suppliers are exchanged via the Volvo Group's supplier portal, supplier conferences, training sessions, assessments, audits, training and awards.

Society, including governments, media and NGOs

Media and press dialogues, dialogues with NGOs, volunteering and in-kind giving, training programs, societal engagement programs, public relations.

102-44 Key topics and concerns raised

Main sustainability risks and opportunities brought up during interactions.

Fuel efficiency and emissions, energy efficiency, intelligent technology, product safety and security, competitive behavior, operational performance of products and services.

Employment, health and safety, restructuring, flexibility, electrification, digitalization, training and development, ethics and compliance, climate impact, diversity, inclusion, equality.

Energy and resource efficiency, business ethics and compliance, climate related risks and opportunities, potential human rights impacts, environmental management.

Environmental life-cycle management, electrification of transports, pollution, greenhouse gas emissions, ethics and compliance employment, health, safety and human rights in supply chains.

Responsible sales, climate change and environmental risks, connection between climate and financial risks, restructuring and employment, training and development of people outside the Group's workforce.

102-41 Collective bargaining agreements

In total, 73% of Volvo employees in 23 countries were covered by a collective bargaining agreement at the end of 2019. It is estimated that just over 42% were members of an independent trade union. Compared to the International Labor Organization statistics, this is significantly higher union density rate than average in the main countries of operation, e.g. Sweden, the US, Japan and Brazil.

102-42 Identifying and selecting stakeholders

Volvo Group seeks to have an open dialogue with a wide range of stakeholders and also seeks to integrate stakeholder selection and dialogues on sustainability topics in ordinary communication flows. This means the business areas' sales representatives have the main conversations with customers. Investor Relations coordinates the

dialogue with analysts and investors. The human resources function oversees the input from union and employees. The purchasing function maintains the dialogue with suppliers. Media Relations maintain the main dialogue with the business and trade media. Business partners, societal stakeholders and industry association dialogues are overseen by central functions covering sustainability, strategy and public affairs.

102-43 Approach to stakeholder engagement

The overall approach is to cluster stakeholders to identify the main topics of interest. Dialogues are held continuously to collect input for further development of the Volvo Group. The intention is to include relevant information in the Annual and Sustainability Report and related documents to ensure that all stakeholders get access to the same information.

REPORTING PRACTICES

102-45 Entities included in the consolidated financial statements

Entities included in the consolidated financial statements are found on page 184 of the Annual and Sustainability Report 2019.

102-46 Defining report content and topic boundaries

Material topics have been shortlisted by analyzing industry drivers and trends, which in turn present a range of risks and opportunities, as well as input from stakeholders. Given the complexity of environmental, social and economic topics, the Volvo Group does not seek to provide exact levels of materiality in a matrix illustration. Issues considered material have been translated into the below list of GRI topics.

102-47 List of material topics

GRI or other standard chosen to report Boundaries where the topic is material

Economic categories

- | | |
|------------------------|---|
| • Economic performance | Financial risks to the Volvo Group's activities in relation to climate. |
| • Anti-corruption | Anti-corruption in the interface between the Volvo Group and customers, business partners, governments, agents and intermediaries. |

Environmental categories

- | | |
|----------------------------|---|
| • Energy | Energy use and emissions in Volvo Group's own operations , related to goods transportation and during the customer use phase . |
| • Emissions | |
| • Waste | The Volvo Group's management of waste and water from its owned operations and environmental compliance. |
| • Water | |
| • Environmental compliance | |

Social categories

- | | |
|---|--|
| • Employment | Human resources topics primarily tied to the Volvo Group's own operations . |
| • Labor-management relations | |
| • Occupational health and safety | |
| • Training and education | |
| • Diversity and equality | |
| • Suppliers social and environmental assessment | Supplier screening and audits, mainly of tier one suppliers . |
| • Human rights | Potential human rights impacts within Volvo Group's operations, the supply chain, operations of business partners and in relation to the use of sold products. |
| • Customer health and safety | Safety and health related to product use phase and the wider impact on road safety and occupational safety. |

102-48 Restatements of information

No significant restatements have been made.

102-49 Changes in reporting

GRI topics taken out: The Volvo Group has taken out a number of topics from last year's GRI report. These are Procurement practices, Materials, Marketing and labeling, Local communities and Customer privacy. These topics may be relevant, however not to the extent that they are reported in accordance with GRI standards.

Reporting methods: In order to more accurately reflect the actual CO₂ emissions within Scope 2 and to recognize the emission reduction improvements, a change to market based reporting has been implemented as from 2019. This means that, where applicable, average greenhouse gas emission factors from in the electricity grid have been changed to specific emission factors stated by the electricity suppliers. More information about market based and location based reporting can be found in the Greenhouse Gas Protocol Corporate Standard, please refer to ghgprotocol.org.

102-50 Reporting period

The reporting period is 1 January 2019 to 31 December 2019.

102-51 Date of most recent report

The date of most recent report was 12 March 2019.

102-52 Reporting cycle

The reporting cycle is annual.

102-53 Questions relating to the content in the report, the contact points

For questions relating to the content in this report, the contact points are Investor Relations and Corporate Responsibility.

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102-54 Claims of reporting in accordance with the GRI Standards

With reference to GRI Standards accordance criteria, the Volvo Group's Annual and Sustainability Report is self-declared as being in accordance with the 'Core' option.

102-55 GRI content index

A GRI content index is available in the Annual and Sustainability Report 2019 on page 224–226. This GRI report consolidates sustainability disclosures from the integrated Annual and Sustainability Report in a numerical order, and in some areas complements with more detailed information on management approach, data series and explains omissions where relevant.

102-56 External assurance

The Volvo Group has secured external assurance of certain parts of its sustainability related activities. Limited assurance has been done on the topics of Energy and Emissions and all other activities undertaken as part of the Volvo Group's commitment to WWF Climate Savers can be found within the assurance letter. See volvogroup.com/climate for more information.

The Group's Auditor reviews the statutory sustainability report according to auditing standard RevR 12 as defined on page 211 of the Annual and Sustainability Report under the title *The auditor's opinion regarding the statutory sustainability report*.

Economic Categories

ECONOMIC PERFORMANCE

Management approach referring to the GRI standards

GRI 201 – Economic performance 2016

103-1, 2, 3

Management approach, materiality and boundaries

In the topic of Economic performance, Volvo Group includes climate related financial risks to the Group. Please also refer to Strategy and Governance on pages 4–6.

The Volvo Group is divided into business areas and divisions that are responsible for their own risk management and deployment of mitigating activities. In addition, the Volvo Group works with an Enterprise Risk Management (ERM) process, which is a systematic and structured process to report and analyze risk assessments and mitigations as well as to follow-up on the risks that might impact the Group's business from a financial perspective. The objective of the ERM process is to improve business performance and to minimize the cost of managing risks. Metrics and targets to measure and assess risks and opportunities are part of the ERM process.

The Board of AB Volvo oversees the risks and opportunities relating to the Group's business and operations. Among the global challenges for the automotive and transport industry, climate change is a key issue. The risk and opportunities to manage or mitigate these climate related risks for the Group is part of the ordinary business operations. In connection with this, the Volvo Group is studying different scenarios with focus on the transformation needed to meet the ambitions of the Paris Agreement.

One priority is to perform on and further improve existing technologies, while transforming to alternative technologies and business models. New technologies is a focus area for the Board and, throughout the year the Board has paid particular attention to the Group's strategic focus on disruptive technology trends and initiatives within the area of digitalization, electrification and automation. The Board has also decided on a financial plan and investment framework for the Group's operations, including increased investments in R&D for both electrification and combustion engines to reduce CO₂ emissions. During 2019, the Group entered into a number of strategic alliances and partnerships strengthening the Group's research and development of new technologies.

SUSTAINABLE DEVELOPMENT GOALS

Main connection to the UN SDGs specific targets

8.1, Sustainable economic growth

13.3, Improve awareness-raising, capacity, mitigation, adaptation, impact reduction and early warning on climate change



201-2

Financial implications and other risks and opportunities due to climate change

In line with the structure of the Group's enterprise risk management process, the main risks can be divided into:

1. Long term strategic risks, such as technology shift and/or increasing government regulation, and,
2. Short to medium term risks, such as customer satisfaction, physical disruptions of the production system and environmental regulation.

See table on next page >>

201-2 Financial implications and other risks and opportunities due to climate change

The below risk are gathered from the Volvo Group's enterprise risk management section on pages 103–109 in the Annual and Sustainability Report 2019 where references and further comments are provided.

TIME	RISKS	COMMENT
Long term	<p>Technology shift and convergence</p> <p>Balancing the research and development resources between the traditional and new technologies is strategically important for the Volvo Group. New technologies arising from digitalization, and an increasing awareness of climate change, will enable autonomous, electric and connected vehicles to deeply impact the transport, logistics and construction industries – among others. The effect will be particularly strong at the convergence of these technologies as it affects vehicles, assets as well as infrastructures, and potentially opens the way for a paradigm shift.</p> <p>The lack of broadly accepted technologies and standards poses significant risks for the Volvo Group and other participants in these industries, as they are required to choose relevant technologies, time their introduction wisely, while respecting the wide spread in readiness level among markets and segments across the globe. A further level of risk relates to the need to evolve from a vehicle/product focus towards an ecosystem-driven approach, where vehicles and infrastructures are to be developed and implemented simultaneously.</p> <p>If the Volvo Group positions itself unsuccessfully in this technology shift, earnings capacity and financial standing could be negatively affected.</p>	<p>The Volvo Group is striving to lead the technology development. Together with customers and suppliers, through early phase partnership, Volvo Group explores new technologies, desired features, and levels of quality, cost, safety and environmental impact. Extra focus is secured by dedicated organizations within autonomous, electric and connectivity technologies and solutions. Furthermore, Volvo Group is broadening its involvement into ecosystem-related solutions and is today working much closer to customers, suppliers and regulators to understand the pace of development in society.</p>
	<p>Extensive government regulation</p> <p>Regulations regarding exhaust emissions, noise, safety and pollutants from production plants and products are extensive. Most of the regulatory challenges affecting the product range relate to reduced emission levels. The risk for the Volvo Group is not being able to assure an updated and compliant product range to meet current and future regulations.</p> <p>Local protectionism leading to changes to local content requirements can put the Volvo Group at a disadvantage compared to local competitors, cause increased sourcing costs or require Volvo to make significant investments.</p> <p>Failure to assure an updated and compliant product range in time to meet regulations, would negatively affect the Volvo Group's earnings capacity and financial standing.</p>	<p>The product development capacities within the Volvo Group are coordinated, enabling a focus of resources for research and development to meet emission regulations. Local content requirements are continuously monitored, enabling the Group to take appropriate measures in due time.</p>
Short-medium term	<p>Customer satisfaction</p> <p>Top priority for the Volvo Group is to support its customers' businesses and profitability in order for them to succeed, regardless of segment, brand, product or service. Customer satisfaction is reliant on the expectations in relation to the actual delivery or user experience of the total offer.</p> <p>Customer satisfaction, and thereby the Group's sales and revenues, is at risk if the total experience is not at the expected level or price point.</p>	<p>Regardless of where in the value chain, the Group engages in understanding its customers' business and focus efforts on creating value from the customer's perspective.</p>
	<p>Industrial operations</p> <p>The integrated industrial system is vital for the Volvo Group in order to provide products to the customers cost-efficiently, with the right quality, and on time. The Group strives to produce components as well as complete vehicles and machines, and supply material to customers and factories in a sustainable and resource-efficient way. Disturbances and inefficiencies in the integrated system, as well as undesirable effects on and from the external environment, such as strikes, pandemics or extreme weather, could result in stoppages in production, operations and parts deliveries, and thus negatively affect the company's business and reputation.</p>	<p>The organization is continuously working on improvements and to manage risks such as volume variations, supplier disruptions, legislative changes, operational hazards and external environmental impacts. The risks are also partially offset by the integration of the industrial system itself, through the ability to manufacture and source from other Volvo Group sites.</p>
	<p>Environmental regulations</p> <p>International agreements on limiting the CO₂ emissions, such as the Paris Agreement, together with related national and regional initiatives leads to continued and increased attention to climate change and influence regulatory development. Environmental legislation is developing in areas such as vehicle regulations on CO₂ and on emission standards as well as chemical substance regulations. These developments increase the need for monitoring and adaption to new requirements. Even if challenges in these areas are resolved and handled, they could have a negative impact on Group reputation, usage of resources, and cost of production, and may result in adverse effects on earnings and financial position.</p>	<p>The Volvo Group invests substantial resources to adhere to different legislations throughout the entire value chain such as through monitoring of upcoming environmental regulations governing structure to address upcoming environmental requirements, prioritizations and investment decisions in regular operational processes.</p>

ANTI-CORRUPTION

Management approach referring to the GRI standards

GRI 205 – Anti-corruption 2016

103-1,2,3**Management approach, materiality and boundaries**

The Volvo Group's Code of Conduct includes a firm commitment against corruption, based on the conviction that bribery and other forms of corruption distort the market, interfere with free competition, violate laws and undermine social development. Volvo Group employees may not participate in or endorse any corrupt practices, including offering or accepting kickbacks, bribes, excessive gifts or hospitality, or facilitation payments – directly or indirectly, such as through a third party. Neither will the Volvo Group accept suppliers, vendors or partners that offer or accept bribes.

Further and more detailed policies and guidelines complement the Volvo Group Code of Conduct by setting mandatory standards and providing guidance for specific situations. Among other things, this includes a risk-based mandatory anti-corruption due diligence process for new and existing business partners requiring the use of external screening tools. The Volvo Group also issued binding rules to ensure appropriate gift and entertainment practices as well as further documents in adjacent areas such as commercial gifts, charitable donations, anti-money laundering and fraud reporting. Corporate Compliance is responsible for designing and developing the Volvo Group anti-corruption compliance program and monitors the implementation across the Group. A network of compliance officers in the business areas and divisions work closely with Corporate Compliance to ensure the implementation in their respective areas.

Volvo Group uses a combination of audits, management control systems and internal controls to ensure adherence to the Code of Conduct. Further, the Code of Conduct encourages all employees to speak up and report suspected violations to their managers or other management representatives. One way to raise a concern is through the Volvo Group Whistle, read more on page 6 in this document.

SUSTAINABLE DEVELOPMENT GOALS**Main connection to the UN SDGs specific targets****16.5** Reduce corruption and bribery**205-2****Communication and training about anti-corruption policies and procedures**

Volvo's top management, Corporate Compliance and other stakeholders regularly communicate the importance of anti-corruption compliance in various forms. Training is a central element of the Volvo Group's compliance programs, generally providing a risk based combination of face-to-face training and online courses. In 2019, Volvo launched a new Code of Conduct e-learning, also covering anti-corruption aspects. Close to 50,000 employees with access to computer workstations, equalling more than 90% of the target group, completed the mandatory training before the closing of the still running campaign. During 2019 and still ongoing, more than 2,800 managers further provided face-to-face training sessions for employees in the production environment or without access to computers.

205-3**Confirmed incidents of corruption and actions taken**

In 2019, 133 cases were reported via Volvo Group's whistle blower helpline, escalated to Corporate Audit and investigated, please refer to page 40 of the Annual and Sustainability Report 2019 for an overview. Seven of the reported cases were categorized as corruption or conflict of interest. None of these cases were substantiated after investigation.

Environmental Categories

ENERGY AND EMISSIONS

Management approach referring to the GRI standards

GRI 302 – Energy 2016

GRI 305 – Emissions 2016

103-1, 2, 3 Management approach, materiality and boundaries

The Volvo Group's Environmental Policy is the highest level steering document for environmental topics in the Group. It addresses risks as well as opportunities on areas such as emissions, resource use, waste and circularity. It is based on life-cycle management and continuous improvement. The main cause of emissions related to Volvo Group's products and operations is the use of energy, and it is one of the most significant sustainability concerns brought up in stakeholder dialogues.

Emission disclosures are based on the **Greenhouse Gas (GHG) Protocol corporate standard**. According to this standard, the Volvo Group monitors significant scope 1, 2 and partly scope 3 emissions. When nothing else is stated, CO₂ emissions are adjusted for acquisitions and divestments according to the accounting principles of the GHG protocol.

Products, operations and freight transportations have been short-listed as the main material areas in relation to energy and emissions.

Scope 1 and 2 emissions from production and operations

Emissions from production and operations make up a smaller part of the product life-cycle emissions. However, the direct management control of this scope makes it highly relevant for the Volvo Group.

Scope 3 emissions during use of sold products

Life-cycle assessments show that a significant part of the emissions occur during the use of sold products – when the end user drives or operates machines and vehicles sold by the Volvo Group. This is the foundation of the Volvo Group's environmental priorities. As a result, the majority the Group's total R&D expenditure is invested into fuel efficiency, exhaust cleaning and electrification.

Scope 3 emissions from transportation and distribution

Similar to the production and operations, this part makes up a smaller part of the life-cycle impact but is important due to its close link to Volvo Group's business, mission and vision. The more efficient the Group can make its own logistics network the better suited the Group is to provide transport solutions for its end-users and contribute to making their transport systems more efficient.

The Volvo Group has ongoing targets to reduce both energy use and emissions as part its the commitment to WWF Climate Savers. The management approach has overall served the Volvo Group well in its progress to reduce emissions and increase emission efficiency against targets, read more on next page. Still, there is much more to be done.

SUSTAINABLE DEVELOPMENT GOALS

Connection to the UN SDGs and targets

- 7.3** Double energy efficiency
- 8.4** Resource efficiency in production
- 9.4** Upgrade industry for sustainability
- 11.2** Affordable and sustainable transport systems
- 12.2** Sustainable management of natural resources
- 13.3** Knowledge and capacity building to meet climate change
- 14.3** Reduce ocean acidification



302-1 Energy consumption within the organization "Scope 1"		2019	2018	2017	2013
302-2 Energy consumption outside of the organization "Scope 2"					
Energy GWh		2019	2018	2017	2013
Natural gas	Scope 1	551	573	539	727
Diesel	Scope 1	207	219	192	271
Other	Scope 1	175	186	187	81
Electricity	Scope 2	998	1,031	981	1062
District heating	Scope 2	187	186	170	156
Total		2,118	2,195	2,069	2,320
Energy saving projects implemented, GWh					
302-3 Energy intensity					
Net sales, SEK M		418	378	324	265
Energy¹ by net sales, MWh/SEK M		5.1	5.8	6.4	8.7

¹ The energy use compared to net sales is not adjusted for acquisitions and divestments as the denominator of revenues are not.

Volvo Group's scope 3 emissions of sold products are the customers' scope 1 or 2

Emissions from sold products have traditionally been the main focus area of the Volvo Group's improvement work. As these emissions occur when the end-user is operating Volvo Group products, they are also the customers' scope 1 or 2 emissions. In a truck or machine with a traditional diesel engine, well over 95% of total life-cycle emissions can occur in this stage. However, this changes dramatically with electrification, energy efficiency and alternative fuels.

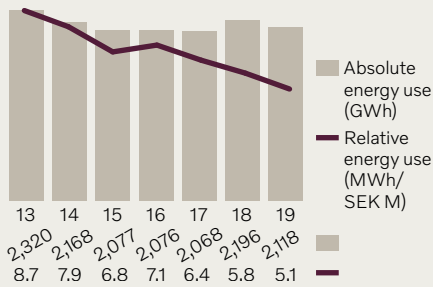
The Volvo Group Environmental Policy

Environmental progress is a key element in our mission to drive prosperity through transport solutions.

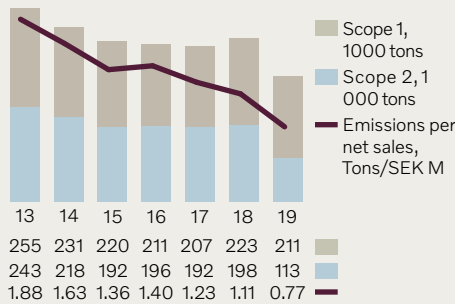
The following principles provide the direction for the work:

- Continually reduce life-cycle environmental impacts as an enabler for increased sustainability and customer success
- Demonstrate responsible care for the environment wherever we operate and build trust by adhering to our Code of Conduct
- Minimize resource use, emissions and waste and utilizing means within our sphere of influence to create change towards a circular economy and to further improve our competitiveness

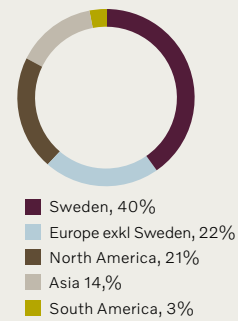
Energy usage



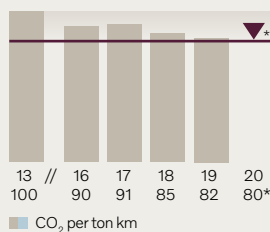
CO₂ emissions



Energy use per region

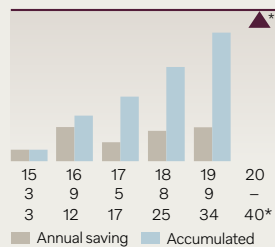


Scope 3: Freight emissions CO₂ per produced unit



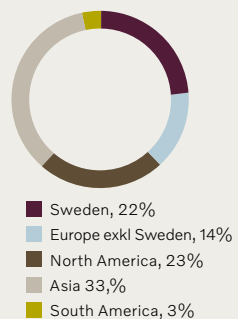
The target is to reduce CO₂ emission per produced unit transported by 20%.
* Target

Scope 3: Accumulated emissions savings from sold products



The target is to save 40 million tons CO₂ from the customer use phase 2015–2020.
* Target

Scope 1 and 2 GHG emissions per region



302-4 Reduction of energy consumption

At the end of 2019, more than 1,000 energy saving projects have been implemented, resulting in a yearly saving of 170 GWh. The Volvo Group's energy use 2019 amounted to 2,118 GWh, which is a slight reduction from the previous year. At the same time, both production volumes and deliveries were higher compared to 2018.

Energy efficiency related to net sales was improved to 12%, from 5.1 MWh/SEK M compared to 5.8 MWh/SEK M year over year. Since 2015, this energy efficiency index has been improved by 25%.

305-1 Direct (Scope 1) GHG emissions**305-2 Energy indirect (Scope 2) GHG emissions**

Metric tons *1000	2019	2018	2017	2013 ¹
CO ₂ e emissions scope 1	211	222	207	236
CO ₂ e emissions scope 2 Market based*	113	198	190	243
Total CO₂e emissions, market based	324	420	397	479

2019 is the first year marked based emissions are used.

1 Historical data is restated due to acquisitions and divestments.

Sources of emissions 2019

Metric tons *1000	2019	2018	2017	2013 ²
Natural gas Scope 1 CO ₂ e	111	*	*	147
Diesel Scope 1 CO ₂ e	57	*	*	63
Other Scope 1 CO ₂ e	43	*	*	26
Electricity Scope 2 CO ₂ e	99	188	181	229
District heating Scope 2 CO ₂ e	14	10	10	14

2 Only the baseline year 2013 is restated due to acquisitions and divestments. This detailed data was not available for 2018 and 2017 on scope 1.

305-3 Other indirect (Scope 3) GHG emissions

Emissions reduction	2019	2018	2017	2016	2015
Emissions during use of sold products, annual reduction million ton	9	8	5	9	3
Emissions during use of sold products, aggregated reduction million ton	34	25	17	12	3
Goods transportation, CO ₂ per transport Index 2013	82	85	91	90	100

Omission: Please note the total scope 3 is not reported. This is partly due to lack of standards that enable comparable results within the industry.

305-4 GHG emissions intensity

Scope 1 and 2	2019	2018	2017	2013
Net sales, MSEK	418	378	324	265
Products delivered, (*1000)	333	299	252	-
CO ₂ (scope 1 and 2) by net sales	0.77	1.11	1.23	1.88
CO ₂ (scope 1 and 2) by products delivered	0.97	1.40	1.58	-

305-7 Nitrogen oxides (NO_x), sulphur oxides (SO_x), and other significant air emissions

Tons	2019	2018	2017	2013
NO _x tons	311	360	301	347
SO _x tons	9.6	13.6	13.3	23.4
Solvents (VOC) tons	1,488	2,148	1,681	2,221

305-5 Reduction of GHG emissions

Within production (Scope 1 and 2 emissions), the Volvo Group works to increase energy efficiency for operations and to reduce carbon intensity of the energy sources used. The Group target is to implement activities from 2015 up until the end of 2020 that save 150 GWh annually. This metric is meant to reduce both cost and greenhouse gas emission from operations. By 2019, over 1,000 energy efficiency projects have been implemented, which has led to an annual reduction of 170 GWh. Together with a higher proportion of renewable energy purchased, the scope 1 and 2 emissions have been significantly reduced.

For products (Scope 3 emissions), the Volvo Group works to increase energy efficiency of traditional drivelines and at the same time enable renewable energy as source of power, such as electricity, and biobased fuels. The Group target is to reduce use-phase emissions by 40 million tons of CO₂ between 2015–2020. The attainment by end of 2019 was 34 million tons. For comparison, this is approximately the same amount as 100 years of emissions from the Volvo Group's production (scope 1 and 2).

Goods transportation (Scope 3 emissions), the Volvo Group works with third party logistics providers to increase use of CO₂ efficient transport modes and to reduce unnecessary transports by e.g. increasing fill rates and more efficient routing. The Group target is to by 2020 reach a 20% reduction of CO₂ emission per transport volume. In 2019, the emissions per volume transported have been reduced by 18% from baseline 2013.

Data is collected from third party transport providers. The scope of the reporting is upstream and downstream goods transports where the Volvo Group is the transport owner.

WATER, WASTES AND ENVIRONMENTAL COMPLIANCE

Management approach referring to the GRI standards

GRI 303 – Water and effluents 2018

GRI 306 – (Effluents and) Waste 2016

GRI 307 – Environmental Compliance 2016

103-1,2,3 Management approach, materiality and boundaries

The Volvo Group's Environmental Policy is the highest level steering document. It addresses risks and opportunities on areas such as emissions, resource use, waste and circularity. It is based on life-cycle management and continuous improvement.

To a large extent, the Group's operations are covered by an environmental management system certified according to ISO 14001. **ISO 14001 Environmental management system covers** approximately 95% of production facilities and 90% of distribution centers. The management system is used in a hierarchical way to deploy effective environmental work in the Group's divisions and business areas. This means that the functions are all responsible for their environmental performance in the same way as financial or other performance.

Over the long term, the Volvo Group has reduced its measurable environmental impact relative to business growth. This means that more value has been generated in relation to the associated environmental impacts.

The topic of water can be highly material for some local production facilities but less relevant for others. This means that on an aggregated level, water use and discharge is less material relative to other environmental topics. It is included in this report due to specific interest and tracking of certain stakeholders.

303-1 Water withdrawal by source

Water consumption in production	2019	2018	2017
Total water consumption, Mega-liters	5,706	4,870	4,817
Relative water consumption, Cubic meters/M SEK	13.6	12.9	14.9

Omission: At Group level, only total water consumption is available.

Volvo Group's sites either have in place or are in the process of developing landfill free objectives and targets. This work is supported by a directive and guidelines setting out the criteria for when a Volvo Group site can refer to itself as a landfill free site.

The increase in hazardous waste during 2019 is mainly due to one-off items relating to on-site construction and renovation and technical issues with internal equipment that resulted in sending more waste to off-site external waste contractors.

SUSTAINABLE DEVELOPMENT GOALS**Connection to the United Nation SDGs and targets****6.4** Increase water use efficiency**8.4** Improve resource efficiency in production**12.4** Responsible management of chemicals**12.5** Reduce waste generation**306-2 Waste by type and disposal method**

Metric tons	2019	2018
Recycling, metal scrap from operations	107,004	97,691
Recycling, other metal scrap	18,634	18,868
Recycling, non-metal	133,297	119,358
<i>% recycling of total</i>	<i>76%</i>	<i>75%</i>
Composting	2,315	2,524
Incineration with energy recovery	29,258	32,920
<i>% recycled, composted or energy recovery</i>	<i>85%</i>	<i>86%</i>
Incineration without energy recovery	2,222	2,598
Treatment by professional waste contractor	19,594	15,153
Landfill	26,839	24,202
Landfill, only inert material	2,571	699
Total residuals	341,734	314,013
Whereof hazardous wastes	51,024	38,601

307-1 Non-compliance with environmental laws and regulations

No significant environmental incidents or spills were recorded during 2019.

Social Categories

HUMAN RESOURCES

Management approach referring to the GRI standards

GRI 401 – Employment 2016

GRI 402 – Labor management relations 2016

GRI 404 – Training and education 2016

GRI 405 – Diversity and equal opportunities 2016

103-1,2,3

Management approach, materiality and boundaries

The Volvo Group Code of Conduct is the foundation for managing social topics within the Group. The leaders of business areas and divisions are responsible for employment practices, labor relations, training, education and diversity as an integral part of their daily operations. To do this effectively, they have support from local and central HR functions and expertise. Different countries, regions and units may manage specific topics in addition to the ones listed herein.

Employment

The topic of employment is critical for the Volvo Group. A central human resource department supports business operations to recruit and develop employees, and provide engaging and safe working conditions. This approach has served the Volvo Group well over the years, and in combination with other activities of the Group, it has contributed to making the company one of the most well-known employer brands. In

SUSTAINABLE DEVELOPMENT GOALS

Connection to the United Nation SDGs specific targets

- 4.3 Equal access to affordable, technical, vocational and higher education
- 4.4 Increase the number of people with relevant skills for financial success
- 5.1 End discrimination against women and girls
- 5.5 Ensure full participation in leadership and decision making



2019, a People Board was established to focus on caring for the co-workers of the Volvo Group and improving the employee experience. This is done by strategically investing in people, attracting and growing talents, as well as creating a people-centric environment and an inclusive culture where everyone has the opportunity to contribute to the Volvo

401-1

New employee hires and employee turnover

Employee turnover, %	2019			2018		
	Year of age and total			Year of age and total		
	<40	40+	All	<40	40+	All
Europe	9	6	7	10	6	8
Men	9	6	7	10	6	7
Women	8	6	7	10	7	8
North America	13	7	9	10	7	8
Men	13	7	9	10	7	8
Women	13	7	9	10	8	8
South America	9	8	9	10	8	9
Men	10	10	9	10	7	9
Women	9	8	9	13	11	10
Asia/Pacific	10	6	7	12	4	8
Men	10	5	6	12	4	7
Women	12	7	9	14	6	11
Africa	14	8	11	9	8	8
Men	15	8	12	9	8	9
Women	12	7	10	10	4	7
Group total	10	6	7	10	6	8
Men	10	6	7	10	6	8
Women	9	6	8	12	7	9

New hires	2019			2018		
	<40	40+	All	<40	40+	All
Europe	2,820	1,240	4,060	3,848	1,457	5,305
Men	2,115	957	3,072	2,878	1,091	3,969
Women	705	283	988	970	366	1,336
North America	898	543	1,441	1,588	1,013	2,601
Men	670	412	1,082	1,274	787	2,061
Women	228	131	359	314	226	540
South America	885	196	1,081	967	217	1,184
Men	706	170	876	776	186	962
Women	179	26	205	191	31	222
Asia/Pacific	1,201	189	1,390	1,543	236	1,779
Men	954	142	1,096	1,263	183	1,446
Women	247	47	294	280	53	333
Africa	126	23	149	91	28	119
Men	80	12	92	66	21	87
Women	46	11	57	25	53	78
Group total	5,930	2,191	8,121	8,037	2,951	10,988
Men	4,525	1,693	6,218	6,257	2,268	8,525
Women	1,405	498	1,903	2,463	683	3,146

Group vision. Examples of topics discussed by the People Board include engagement, talent management and sustainable workforce, as well as attractive compensation and rewards.

Labor management relations

Good relations between functions, as well as between management and employees, is critical to stay ahead and to together take on business challenges. In addition to local initiatives, European Works Council meetings are held twice per year as initiated by the employee representatives. In addition, a number of ad hoc meetings about organizational or major business changes are organized by Group HR. In 2019, 13 (5) such informational meetings were conducted to secure European alignment of organizational changes. Following this forum, the country organizations continue the dialogue with the country and local unions. In total, the Volvo Group conducted 60 (56) consultations with employee and union representatives in different countries in 2019 for different topics. A Global Works Council is held annually.

In September 2019, 50 employee representatives and union members from 20 different countries met with the Volvo Group Executive Board and Group Management in the Volvo Global Dialogue. During this social dialogue, topics such as business area updates, demands of the modern transportation market and changing competency requirements for employees for the transformed future industrial environment were highlighted.

Three ordinary and two deputy members chosen by employee organizations are part of the AB Volvo Board of Directors.

402-1 Minimum notice periods regarding operational changes

Prior to major organizational changes, employee representatives and relevant government authorities are informed and consulted in accordance with legal and contractual requirements. The exact notice period differs between the local agreements and regulations.

The Group looks at impacts on the individual and strives to use pragmatic solutions to minimize negative impact in case of major reorganization or redundancies. These are different from case to case, and may include, but are not limited to: utilizing time-banks to reduce labor time, governmental sponsored working-time shortages, re-skilling or upskilling for continued employability, early retirement, financial compensation, internal mobility programs and outplacement via third party.

Training and education

Individual and organizational learning is highly relevant for the Group to drive current business operations and to prepare and transform for the future. Individual learning is also an integral part of an employee's development and growth. The overall management approach is to drive scala-

ble learning and competency development via the Group's own corporate campus – the Volvo Group University (VGU). VGU is responsible for design, development and delivery, ensuring the quality of its trainings and making trainings easily and widely accessible.

Different formats are used to create the best learning experience: online, on-site, on stage and in-classroom training – as well as videos and games.

Volvo Group University training programs are managed in Navigator, a personalized and collaborative learning portal that supports competence development and engages employees in their learning and sharing journey.

Vocational training is another critical factor driving global prosperity. The Group initiates, supports or runs vocational training programs across the world focusing on practical skills for mechanics and bus or truck drivers. In some regions, the Volvo Group is involved as lecturers or trainers, and in other areas the Group cooperates with technical high schools and universities.

In several markets, the Volvo Group and its customers have experienced a mismatch between skills and business needs. In many of these markets the Volvo Group therefore works together with national and international aid agencies to provide the education needed for increasing employment and developing an employable workforce.

404-2 Programs for upgrading employee skills and transition assistance programs

The Volvo Group runs numerous training programs that target a variety of occupations to both perform its current business and to transform for the future. People, products and ways of working are impacted by automation, electrification and connectivity. To adapt to these changes, Volvo Group offers programs targeting roles that require upgraded skills or that will be transitioned over time. A wide curriculum on electric vehicles has been deployed over the last years for engineers, workshop operators and other relevant work roles. Electrification includes not only electric drives, but also applies to new supply chain management and traction voltage systems with critical safety and regulation aspects.

The Group is also deploying a number of education programs on Artificial Intelligence (AI). AI allows even more advanced products and services, as well as automation of internal processes. In addition to helping experienced employees develop new competences, Volvo Group University also supports new employees. New employees, who brings in new competencies such as data- and software engineering, are trained in Group Volvo specific domains, such as vehicle technology and manufacturing concepts.

Diversity and equal opportunities

Diversity drives performance by enriching creativity, encouraging innovation and improving decision making. Following the decentralized accountability within the Volvo Group, performance for diversity belongs to each organization. All the diverse dimensions that make up our individual backgrounds gives each of us a valuable, unique perspective.

Diversity and inclusion have been driven in a systematic way within the Volvo Group for over a decade. The work includes a wide range of diversity and inclusion aspects, such as culture, background and gender. It also includes facilitation of networks for employees on sexual orientations and gender identities, as well as employees with physical impairments. The overall ambition is to attract and excite a wide range of people to the Volvo Group to attain the skills and competencies needed. The Group has established targets to increase gender diversity and works systematically to improve these ratios in higher management positions, in graduate programs and management training programs. This overall approach also spreads to other areas such as vocational training programs in local communities. One of the overall aims is that management and workforce reasonably reflect the diversity of the regions and businesses of the Volvo Group.

To maximize the positive effects of diversity and inclusion, the leaders of each division and business unit are responsible for making it an integral part of their daily operations. Different countries, regions and units may have different diversity challenges, which is why there are many localized and business specific diversity goals and action plans across the Volvo Group.

In addition to these measurements, the total gender balance is assessed as a total of the workforce, for line management positions and at the senior management level, as described in the gender diversity table to the right.

405-1 Diversity of governance bodies and employees

Age diversity of the Volvo Group workforce, %	2019		2018	
	<40	40+	<40	40+
Europe	37	63	38	62
North America	34	66	34	66
South America	59	41	60	40
Asia / Pacific	44	56	45	55
Africa	56	44	58	42
Group average	40	60	41	59

Gender diversity of the Volvo Group workforce, %	2019		2018	
	Women	Men	Women	Men
Europe	21	79	21	79
North America	14	86	20	80
South America	17	83	16	84
Asia / Pacific	14	86	14	86
Africa	24	76	21	79
Group average	19	81	19	81

Gender diversity over time, share of women, %	2019				
	2019	2018	2017	2016	2015
All employees	19	18	19	18	18
Manager (all levels)	20	19	19	18	18
Presidents and other senior executives	26	25	25	24	22
AB Volvo Board (excluding deputies)	40	40	36	36	33

OCCUPATIONAL HEALTH AND SAFETY

Management approach referring to the GRI standards

GRI 403 – Occupational health and safety 2018

103-1,2,3 Management approach, materiality and boundaries

Health and safety are material issues in several aspects of Volvo Group's direct operations as well as in activities that occur along the value chain. The Volvo Group Health and Safety Policy gives directions on how workplace safety, health and well-being shall be handled within the Group. The policy defines employees as direct employees as well as consultants.

Well-being at work is critical for employers in all industries. It strengthens employee engagement, increases productivity and drives performance. By the end of 2019, the Volvo Group employed around 100,000 individuals in production, logistics, offices and retail workshops. The health and safety focus can vary in these organizations (e.g. sickness, accidents, mental health) depending on the type of working environment, but all are part of the overall management of well-being. In the supply chain, the focus so far has been primarily on physical accidents.

SUSTAINABLE DEVELOPMENT GOALS

Connection to the United Nation SDGs and targets

3.3 Fight communicable diseases

8.8 Protect labor rights and promote safe working environments



Psychological health, from the employee perspective, is gaining attention globally. Data from the World Health Organization shows that 25% of the population is affected by mental health issues, and as of 2018, depression is the primary cause of disability in the world. The Volvo Group does not have established global common performance indica-

tors for psychological health, but has chosen to manage this according to local needs and social contexts.

Volvo Group's accident rate has steadily improved over the last five years with a total decrease of 50%, but the rate of improvement has slowed down. In 2019, the Lost Time Accident Rate per 200,000 worked hours was 1.22. There is a clear expectation that this will continue to be reduced as further actions and improvement of the management approach are deployed. Safety is the first item on the agenda of business review meetings with all business areas and their units. In 2019, safety was emphasized as Volvo Group's first priority and communicated broadly. The change has reinforced line management ownership for health and safety. Additional health and safety managers and professionals have been recruited to lead the improvements across Volvo Group. A global health and safety network of professionals is supporting management in this work. One responsibility of the network is to share best practices and to learn from near misses and first aid incidents in order to reduce repetition of similar accidents and risks.

403-1 Occupational health and safety management system

As the empowerment of each business area is the basis of responsibility at Volvo Group, it is up to each entity to decide how to manage health and safety. Volvo Buses and Volvo Construction Equipment are two business areas that have chosen to certify their parts of the management systems according to OHSAS 18001 or ISO 45001. Others use internal safety management systems with regular assessments and coaching as an integral part of the Volvo Group Management System (VGMS) and Volvo Production System (VPS). This helps to ensure that there are written procedures, internal controls, clear ownership and management review, and that deviations are acted upon. The scope of prevention work includes both physical and psychological health, and workplace safety. It covers all employees working for Volvo Group on- or off-site, as well as the period of time spent commuting to and from work.

403-2 Hazard identification, risk assessment and incident investigation

Volvo Group and its subsidiaries apply tools and processes according to legal requirements, as well as the requirements in the Volvo Group Code of Conduct, to prevent accidents and promote health. Risk assessments are carried out on a regular basis at all levels from shop floor to office. Health and safety professionals ensure the quality of risk assessments and involve line management and union representatives in this work. Potential risks are in focus during internal assessments and external audits, where typically a sample of risk assessments and corrective and preventative actions are reviewed. Managers and employees are reviewed in their knowledge of their own major risks. Measures to mitigate or eliminate the identified risks are defined and implemented, and risk assessments are reviewed and updated periodically or after any incident has occurred. Recordable accidents are reported and followed up at the unit level and further up in the organization, continuing up to Group level. Investigations resulting in corrective and preventative actions must be deployed after each recordable accident. In cases where the issue is linked to risks that may be relevant for other units – the causes of the accident and the corrective and preventative measure to

avoid a repeat are shared with other relevant units within the global health and safety network. In certain cases, directives are built to be deployed throughout the company as part of a preventative measure. Employees are requested to report accidents, incidents and unsafe acts and conditions – as they are a vital source of improvements and highlight opportunities to better control the associated risk. The Volvo Group's Code of Conduct and related processes make it clear that any management reprisals against individuals making such reports are strictly forbidden. In the unlikely event that a manager acts against the Code of Conduct – a whistleblower process can be used to escalate this.

Reported risks must be addressed at the local level but are not required to be reported in detail further up in the organization – only the total number of such cases should be reported for the unit as this gives an indication of the level of safety related activity. No distinction is made between Volvo Group's employees, agency workers or other persons on site for the identification and control of risk. Health and safety coordinators are employed to support team leaders and managers in the organization. Periodic training is also organized on health and safety procedures, roles and responsibilities for managers and health and safety coordinators.

Based on the risk assessment carried out for a specific machine, process or work area, employees receive training so they understand the risks and how to manage them – through following defined procedures or wearing personal protective equipment, for example. When defining corrective or preventative actions in response to identified risk, the Volvo Group Health and Safety policy requires that the hierarchy of control measures principles be applied. The first option is hazard elimination. If hazard elimination is not possible, substitution, engineering controls, administrative controls and personal protective equipment are applied. The policy is distributed and made visible on the walls of factories and offices within the company.

403-3 Occupational health services

Occupational health services are provided to employees at most units and vary from one country to another depending on, depending on the specific needs of the unit, the level of health service provided and local legislation. In many countries and locations, health services are supported by company doctors and nurses, psychologists, physiotherapists and ergonomists.

In some countries/organizations such services can be supplied by third parties. If so, they are required to ensure data privacy in accordance with applicable regulations. Occupational health services play a major role in health promotion. These service providers manage confidential databases and can help to provide anonymized reports about relevant health aspects – diabetes, cardiovascular disease, stress levels, etc. – to implement relevant preventive and corrective actions. They contribute significantly to training and webinars, and provide support to individuals, teams and organizations. They stay current in their fields of knowledge to be on the forefront of new initiatives for the Volvo Group.

403-4 Worker participation, consultation and communication on occupational health and safety

Worker representatives are appointed to health and safety committees by employees. Depending on the type of business area, health and safety committees operate on the factory level, retail office level or unit level. The main objective of the committees is to bring together worker and management representatives, define actions and jointly agree on measures needed to improve health and safety performance. Committees meet on a regular basis and decisions taken shall be communicated to the workforce, acted upon and followed up. The committees could also be involved in accident and incident investigations and support in additional corrective or preventative measures.

403-5 Worker training on occupational health and safety

All employees and consultants are provided health and safety training as well as other code of conduct training as part of their induction training. More specific training is provided depending on the job responsibilities. Specific training for potentially hazardous jobs – such as working with electricity or hazardous substances, at heights and in high heat conditions – is mandatory for employees working in these environments, and needs to be repeated on a regular basis. All trainings are provided during working hours. The effectiveness of these trainings is assessed locally depending on each organization and country.

403-6 Promotion of worker health

The Volvo Group has for a long time provided various health promoting activities beyond occupational safety. These programs are often provided by external partners. Health promotion programs may cover topics such as preventing communicable diseases, substance abuse, obesity, healthy life style, physical exercise, nutrition, sleep and stress management. These programs and initiatives take a more and more holistic approach to health, and this has been reinforced in the last update of the Volvo Group Health and Safety policy in 2018. The psychological work environment is growing in focus, and many tools are available to support in curing, preventing and promoting good mental health. There are various types of tools that can be used depending on specific and individual needs. The confidentiality of individuals is protected in line with general data privacy laws.

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

In accordance with the Volvo Group's Supplier Code of Conduct, on-site audits are performed at suppliers on a wide variety of sustainability topics. Health and safety are central elements to this process. Read more about this on page 22 – Supplier social assessments. Volvo Group's employees also work at customer and supplier sites, as well as other locations outside Volvo Group's premises. When identifying such offsite activities, Volvo Group assesses the related health and safety risks.

Occupational safety, as well as road safety, are central elements in the Group's offer to end-users. The Volvo Group provides customer solutions and training to increase safe behavior and safe product use. Please read more about customer health and safety on page 24–25.

403-8 Workers covered by an occupational health and safety management system

The Volvo Group Management System includes health and safety management based on legal requirements and covers all employees and consultants, these are all included in the safety reporting presented below.

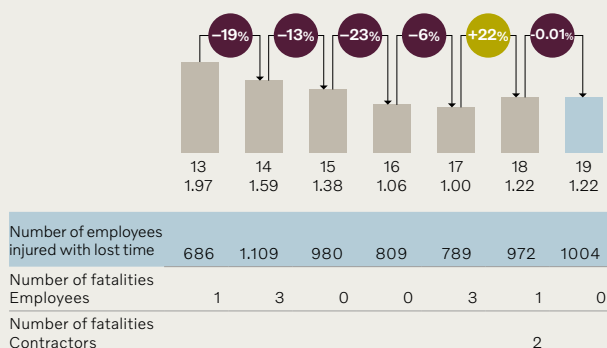
The percentage of employees and consultants who have been covered of internal audit cannot be reported for the previous year. The data was not available.

By December 2019, 32 sites covering around 30% of the Volvo Group's employees have chosen to certify their operations according to OHSAS 18001 or ISO 45001. Volvo Buses and Volvo Construction Equipment are two business areas that have chosen to certify their entire operations.

403-9 Work-related injuries

Volvo Group measures the Lost Time Accident Rate (number of recordable accidents with lost time per 200,000 worked hours) in all locations including plants, workshops and offices in all countries of operations. In 2019, the accident rate was 1.22 per 200,000 worked hours. Consultants are not separately reported but are included in the figures along with all of the Volvo Group's employees. Health and safety data is collected quarterly at the Group level and on a monthly basis by several business areas and truck divisions.

High-consequence work-related injuries and related hazards are locally reported and followed up, but are not consolidated at Volvo Group level.

Rates of injury and number of work-related fatalities

SUPPLIERS' SOCIAL ASSESSMENT AND ENVIRONMENTAL ASSESSMENT

Combined management approach referring to the GRI standards

GRI 414 – Supplier social assessment

GRI 308 – Supplier environmental assessment

103-1,2,3 Management approach, materiality and boundaries

The Volvo Supplier Code of Conduct outlines the standards, from which assessments, audits, mapping, innovation and collaborations are initiated by the Group.

The Volvo Group's Supplier Code of Conduct outlines the requirements, as well as the aspirations expected from all suppliers delivering goods and/or services to any entity in the Volvo Group in the areas of human rights, working conditions, health and safety, responsible sourcing of raw materials, environmental performance and business ethics.

The *requirements* refer to the minimum standard, which all suppliers must comply with.

The *aspirations* refer to supplier's activities where the Volvo Group encourages going beyond the basic requirements to further advance sustainable performance and impact in the areas covered by the Volvo Supplier Code of Conduct.

The supplier screening and auditing is centrally coordinated by Volvo Group Purchasing and covers tier one suppliers. A risk-based approach is used to prioritize screenings and audits. Prioritization is made by reviewing risks by country or market, commodities, processes or work areas of the suppliers.

In addition to this overall risk mapping, environmental, human rights and other social risks can be flagged during any type of supplier audit, training or visit. For this purpose, the Volvo Group carries out most audits and reviews with internal resources with a shared responsibility between procurement staff and specialists, whose tasks it is to ensure that proper actions are taken to resolve gaps identified.

Screenings are done from desktop studies using Volvo Group's internally developed risk tool and external risk heat maps, in combination with supplier self-assessments. Auditing of suppliers is done at suppliers' locations by Volvo Group specialists.

The Code of Conduct audit procedure is based around a checklist with questions focusing on a wide range of aspects, such as human rights, working conditions, environment and business ethics. The responsibility of improvements and corrective actions always lies with the suppliers themselves, where non-compliance cases are managed by the responsible buyer together with the auditor until resolved. First and foremost, the work focuses on establishing a strong partnership and developing a sustainable supply base. Those who fail to address critical issues over time risk having their contracts terminated.

SUSTAINABLE DEVELOPMENT GOALS**Main connection to the United Nation SDGs and targets****8.8** Protect labor rights and promote safe working environments**12.4** Responsible management of chemicals and waste

Volvo Group is active in a number of collaborations to drive broader and more scalable sustainable development of global supply chains. Volvo Group takes part in DRIVE Sustainability, which focuses in automotive suppliers and among other things strives for one common compliance evaluation platform. With CSR Europe, a European business network for corporate sustainability and responsibility, Volvo Group has also during the year nominated global suppliers in sustainability trainings in Poland, Mexico, South Africa, Malaysia and Brazil. RMI (Responsible Minerals Initiative), seeks to improve transparency in global supply chains of minerals. The Volvo Group's Sustainable Minerals Program is based on the work within RMI.

414-1, 308-1**New suppliers that were screened using social and environmental criteria**

Because the population and scope of suppliers changes continuously, and the total number of suppliers can shift over time, the exact percentage of new suppliers that were screened using social and environmental criteria is not available.

In 2019, 92% of the total Volvo Group spend came from suppliers that were self-assessed on environmental and social criteria. In high risk areas, this percentage was 98%.

In addition, new suppliers of direct material in high risk countries are to be visited on site. Indirect material suppliers are audited when the suppliers are located in a high risk country and the annual spend comes above a certain pre-defined financial threshold.

In 2019, 55 suppliers have been audited in Belarus, China, India, Malaysia, Mexico, South Africa, Thailand, United Arab Emirates and the US. 21 of these audits were fully approved without identified non-conformances.

414-2 Negative social impacts in the supply chain and actions taken

In 2019, significant deviations were found within the areas of health and safety, working hours and sustainability communication towards sub-suppliers. In the area of Health and Safety, the deviations were found in the area of improper personal protective equipment, fire emergency procedures and first aid procedure. In the area of working hours, the findings were related to excessive working hours and in the area of supplier communication, the deviations were found around inconsistent sub-supplier Code of Conducts, lack of cascading requirements and information and training to sub-contractors about social, environmental or business ethics requirements. Deviations were found at 34 suppliers. All have confirmed corrective actions to be taken.

The findings from the audits are communicated back to the suppliers. The suppliers are expected to set up and implement a corrective action plan in a timely manner. Such corrective actions are then closely monitored by the responsible buyer in cooperation with the auditor and the purchasing sustainability team.

308-2 Negative environmental impacts in the supply chain and actions taken

In 2019, no significant deviations related to environmental management were identified.

HUMAN RIGHTS

Management approach referring to the GRI standards

GRI 406 – Non-discrimination 2016
 GRI 407 – Freedom of association and collective bargaining 2016
 GRI 408 – Child labor 2016
 GRI 409 – Forced or compulsory labor 2016
 GRI 412 – Human rights assessments 2016

103-1,2,3 Management approach, materiality and boundaries

The Volvo Group Code of Conduct, Supplier Code of Conduct, and other Group-level policies and directives reflect the Group's commitment to respect human rights. Through these guiding documents, the Group sets and communicates expectations on mutual respect, non-discrimination, safe and healthy workplace, freedom of association and collective bargaining, working hours and compensation, and zero tolerance to any forms of modern slavery or child labor.

The Group supports and recognizes the following international and regional human rights instruments:

- UN International Bill of Human Rights
- ILO's eight fundamental conventions
- UN Global Compact
- UN Guiding Principles on Business and Human Rights
- OECD Guidelines for Multinational Enterprises
- Children's Rights and Business Principles by the UN Global Compact, UNICEF and Save the Children

These are used as support and guidance especially in contexts with elevated human rights risks and where regulations are sometimes insufficient or inadequately enforced. The scope of the Volvo Group's current human rights reporting includes own operations, strategic business partners, suppliers, and potential impacts in connection with the sale and use of our products. Volvo Group's human rights due diligence efforts are focused on where it is believed the highest risks exist of people being harmed. This is based on country human rights risk levels, purchase or sales segment risks and/or potential concerns brought to attention by employees or external stakeholders.

SUSTAINABLE DEVELOPMENT GOALS**Main connections to the United Nation SDGs and targets**

- 5.1** End discrimination against women and girls
- 8.7** Take immediate and effective measures to eradicate forced labour, end modern slavery and human trafficking
- 8.8** Protect labor rights and promote safe and secure working environments for all workers

**406-1 Incidents of discrimination and corrective actions taken**

In 2019, 24 reports related to discrimination or harassment were reported via the Volvo Group Whistle. All reports were investigated. Five reports were substantiated and have led to disciplinary measures, training or changes in internal process and routines.

Depending on the situation, specific actions are designed and applied. The Volvo Group provides awareness trainings to prevent harassment and discrimination on regular basis. This is done with the Volvo Group Code of Conduct as the foundation. In addition special courses about prevention from harassment and discrimination are offered for managers in some jurisdictions, for example the training Civil Treatment for Leaders in the US.

407-1 Operations and suppliers in which the freedom of association and collective bargaining may be at risk

Legal compliance is the foundation for Volvo Group's activities globally. Varying country legislation on union independence means the approach to managing freedom of association and collective bargaining may differ from one case to another. The Volvo Group has chosen to manage this by in the Code of Conduct, clearly stating its respect for the right of all employees to form and join an association to represent their interests as employees, to organize, and to bargain collectively or individually, as well as the right to refrain from joining a union. Human and labor rights issues, as well as other relevant questions can be raised through the Volvo Group Dialogue, which is a forum including employee representatives and Group management. Please refer to page 18 for details on labor and management relations.

In the supply chain, this matter is managed by contractually binding suppliers to the Volvo Group Code of Conduct for suppliers. This forms the basis for supplier audits. It states that where local law sets restrictions on the right to freedom of association and collective bargaining, the supplier shall allow alternative forms of worker representation, association and bargaining.

408-1 Operations and suppliers at significant risk for incidents of child labor

The Group includes risks related to child labor as part of its overall human rights due diligence of operations and suppliers. In 2019, no cases of child labor were identified at own operations or through supplier sustainability audits.

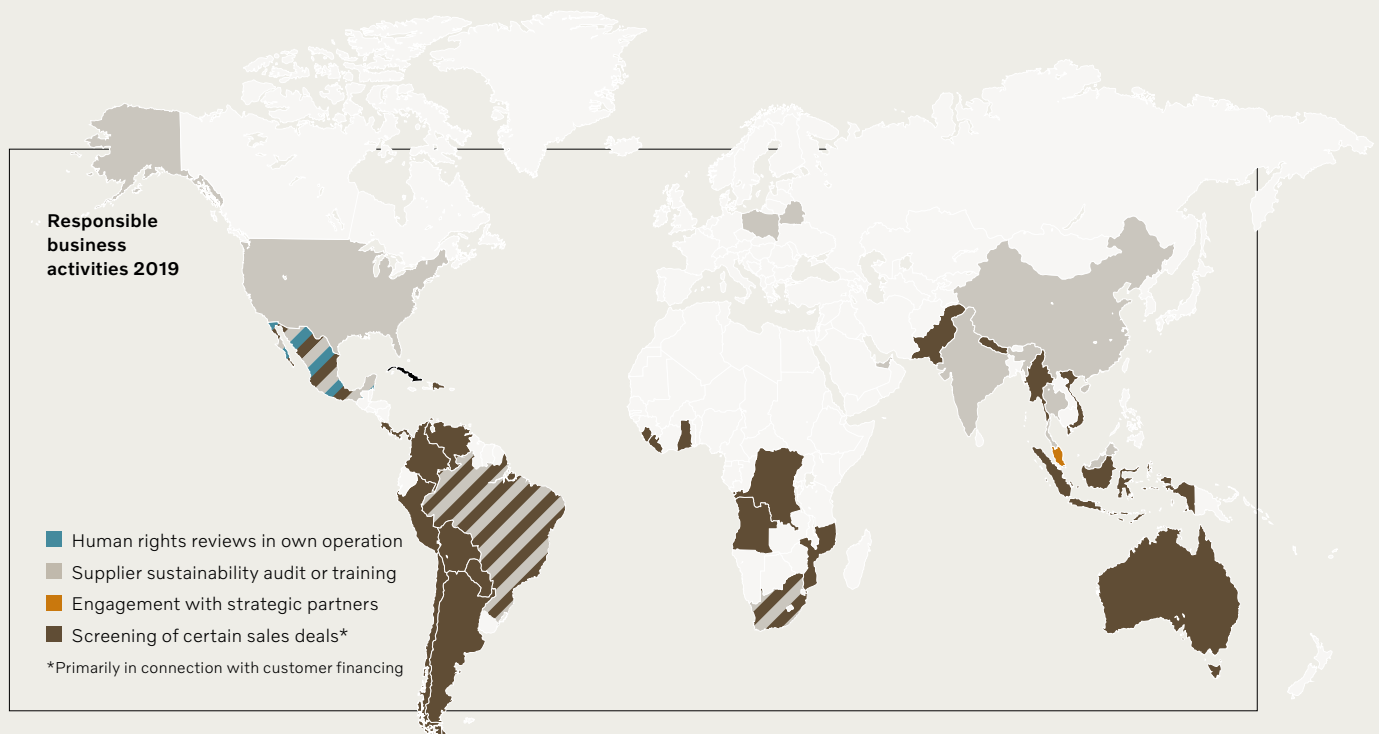
409-1 Operations and suppliers at significant risk for incidents of forced or compulsory labor

The Group considers risks related to forced or compulsory labor as part of its overall human rights due diligence in connection with operations and suppliers. In 2019, no cases of forced or compulsory labor were identified at own operations or during supplier sustainability audits.

412-1 Operations that have been subject to human rights reviews or impact assessments

The Volvo Group's human rights review covering own operations involves desktop review of country and sector human rights risks, self-assessments and in-person workshops with local management and Human Resources Country Committee, in-person discussions with employees, onsite service providers and their employees, union representatives, and also, if relevant, potential in-person discussions with other stakeholders. It is adapted to reflect the needs of the country being reviewed. So far, human rights reviews have been performed in Germany and India (2017), South Africa (2018), and Mexico (2018–2019).

Please refer to pages 42–43 in the Annual and Sustainability Report 2019 for the full content of reporting on human rights.



CUSTOMER HEALTH AND SAFETY

Management approach referring to the GRI standards

GRI 416 – Customer Health and Safety 2016

103-1,2,3 Management approach

Volvo Group has a holistic approach to customer health and safety that considers the impact on society as a whole. The Group's business and the products it offers target a wide range of application areas and impact many categories of people, such as drivers and operators, commuters, as well as other traffic system users like cyclists and pedestrians.

The vision is zero accidents with Volvo Group products, and the offering of world-leading products and solutions for sustainable transports is part of the zero accidents vision.

Every year, 1.35 million people lose their lives in road traffic accidents worldwide, and many million are seriously injured. In addition, operators' and workers' occupational health and safety are at stake in and around vehicles and machines, both on the road and in construction and work sites. Issues such as noise and air pollution are also considered in this work.

A holistic approach means addressing all these concerns in a proactive and systematic way. Designing the best solutions to address these global challenges is delivering both on the Volvo Group's commitment to the Sustainable Development Goals and to offer the most competitive solutions to customers and business partners. Volvo Group works systematically with in-depth accident research to understand the context and challenges facing customers in their operations. This knowledge is then the basis for our product development. In addition, Volvo Group also work with partners in academia and policy makers to gain knowledge and works to accelerate

SUSTAINABLE DEVELOPMENT GOALS**Main connections to the United Nation SDGs and targets**

- 3.6** Halve road traffic accidents
- 8.8** Promote safe working environments
- 11.2** Provide access to safe, affordable, accessible and sustainable transport systems for all, improving road safety



progress in other aspect of the transport system to enable safer solutions to be brought to the market. Finally yet importantly, the knowledge gained on safety is shared to raise awareness of key safety concerns, like speed, seat belts and alcohol.

416-1**Assessment of the health and safety impacts of product and service categories**

All product lines are carefully assessed for health and safety impacts among other sustainability assessments. This is a key competitive advantage of the Volvo Group. Such assessment can include product assessments, audits of different processes in the design, development, production and use phases, as well as research investigations from real accidents. Please read more on volvogroup.com/safety.

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