VOLVO GROUP

GRI G4 INDEX 2016

Sustainability reporting

Since 2015, the Volvo Group has included material sustainability information in our Annual and Sustainability Report.

This index is aimed at stakeholders with specific interest in our corporate social responsibility (CSR) and economic, environmental and social sustainability strategy and performance.

It is based on the Global Reporting Initiative (GRI) G4 Guidelines at Core level and should be read in conjunction with our Annual and Sustainability Report 2016 (ASR16), available at: **volvogroup.com**

We intend to transition to the GRI Standards in due course.





Volvo Group

Indicator Description

Notes and references

STRATEGY AND ANALYSIS

G4-1 Statement from the most senior decision-maker about the relevance of sustainability and the organisation's strategy for addressing sustainability.

The following Q&A supplements the CEO statement in the Annual and Sustainability Report 2016 (ASR16)

How relevant is sustainability to the Volvo Group?

In 2016, we introduced a new mission that expresses a broad ambition and higher purpose – to drive prosperity through transport solutions. Sustainable transport is an important piece of the puzzle to drive

prosperity, and having co-chaired the UN General Secretary's High-level Advisory Group on Sustainable Transport for three years, Volvo Group follows its definition. Sustainable transport services and infrastructure move people and goods – advancing economic and social development to benefit today's and future generations – in a manner that is safe, affordable, accessible, efficient, and resilient, while minimizing carbon and other emissions and environmental impacts.

It is important for the Volvo Group to offer products and services that contribute towards sustainable development and the United Nations Sustainable Development Goals (SDGs).

What are your CSR and sustainability priorities?

Economic, environmental and social sustainability is embedded across our entire value chain: from customer focus and product development through purchasing and production to logistics and reuse.

We invest in new technologies that drive efficiency, safety and emissions reductions for the benefit of our customers and society. For longterm transport solutions we prioritize automation, connectivity, electromobility and alternative fuels as key enablers that we believe will change today's transport industry.

We are committed to demonstrating responsible business behaviour and aim to be the most admired employer in our industry. We invest in people, support sustainable growth and societal development while reducing environmental impacts.

In 2016 we reviewed and updated our CSR and sustainability approach and activities to ensure we focus on areas that support the Volvo Group's new mission, vision, aspirations, values and strategic priorities.

What were your sustainability highs and lows in 2016?

As described in the Volvo Group Annual and Sustainability Report, lower net sales had a negative impact on earnings but profitability improved due to reduced costs and increased productivity.

We reached a settlement with the European Commission related to their anti-trust investigation. As part of the settlement we paid a fine of SEK 6.5 bn.

During the year we introduced and tested a number of new features that reduce impacts on the environment. I am proud of our role in the successful ElectriCity project, where our all-electric concept buses and electric hybrids carried more than 1.2 million passengers in one year. Volvo CE unveiled cost-effective solutions for increased site efficiency with the help of autonomous and electrified prototypes. The trials of the very first self-driving Volvo FMX truck in a deep mine in Sweden are also very exciting, enabling higher productivity and lower environmental impacts and reduced exposure of people to danger.

I also co-chaired the UN High-level Advisory Group on Sustainable Transport and we delivered our final report and recommendations to the General Secretary.

My personal high point was meeting and engaging directly with so many people connected to our business and discovering how passionate our employees are to play their part in supporting the success of our customers, business and society at large.

What are you looking forward to in 2017 and beyond?

With the substantial restructuring activities now being completed and

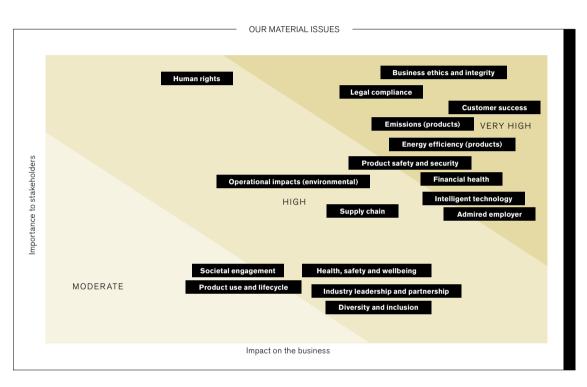
Indicator	Description	Notes and references
maleater		after major product renewals in recent years, we are currently intensify- ing efforts to increase productivity and product quality through continu- ous improvements and continuous introductions of new features into our products. We will continue to analyse the global mega trends and work on future technologies that provide benefits to customers and to society and bring us closer to fulfilling our vision – to be the most desired and successful transport solutions provider in the world.
G4-2	Key impacts, risks, and opportunities	Business impacts, risks and opportunities for the Volvo Group are out- lined in the risk section of the Board of Directors' Report in the ASR16 (page 106 to 111). The materiality process identified our key sustain- ability topics for 2016. A summary of our materiality process is included in the ASR16 (pages 26 to 27), full details are given in the standard disclosures G4-18 to G4-23 (below).
ORGANIZ	ATIONAL PROFILE	
G4-3	Name of the organization	The company is registered in Sweden as AB Volvo (publ).
G4-4	Primary 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 Volvo Group's brand portfolio consists of Volvo, Volvo Penta, UD, Terex Trucks, Renault Trucks, Prevost, Nova Bus and Mack. We partner in alliances and joint ventures with the SDLG, Eicher and Dongfeng brands. By offering products and services under different brands, the Group addresses many different customer and market segments in mature as well as growth markets. See ASR16 pages 2 to 3.
G4-5	Location of the organization's headquarters	The Volvo Group's headquarters are in Gothenburg, Sweden.
G4-6	Number of countries where the organization operates and names of countries with significant operations or relevance to sustainability	The Volvo Group has factories in 18 countries and sells products and services in 190 markets. Our main operations are located in Sweden, where the company was founded in 1927. We have several operations in the US, Brazil, India and China. For a list of all major production sites, see page 51 in the ASR16.
G4-7	Nature of ownership and legal form	The Volvo Group is a publicly-held company. Volvo shares are listed on the stock exchange Nasdaq Stockholm, Sweden.
G4-8	Markets served (geographic breakdown, sectors served, and types of customers and beneficiaries)	The Volvo Group sells its products in 190 countries. The Group's five largest markets are the US, France, United Kingdom, Japan and Germany. The majority of customers are companies within the transportation or construction industries. For more detailed information, see the ASR16 page 76.
G4-9	Scale of the organization (total employees, operations, net sales, products)	The Volvo Group employs close to 95,000 workers and net sales amounted to about SEK 302 billion. In 2016, the Volvo Group's wholly- owned truck operations delivered 190,424 (2015: 207,475) trucks. The Group also delivered 9,553 (8,825) buses; 44,306 (44,718) units of con- struction equipment; 18,016 (17,413) marine engines and 19,251 (15,295) industrial engines, see ASR16 pages 1 and 31.

	Description	Notes and references				
G4-10	Total number of employees	At the end of 2016, the Group h and 10,875 (11,037) temporary 40,798 (47,368) regular employ ees and consultants were blue of The geographical and gender ees was as follows:	employees a ees and 4,9 collar, see AS	and consul 46 (4,341) SR16 page	Itants of wh) temporary e 31.	ich employ-
		EMPLOYEES				
		Number of regular employees	Total 2016	Male, %	Female, %	Tota 2015
		Sweden	19,235	78	22	20,412
		Europe, excluding Sweden	26,955	82	18	27,662
		North America	14,245	81	19	15,534
		South America	4,762	84	16	5,380
		Asia	16,469	87	13	17,046
		Africa and Oceania	2,373	84	16	2,430
		Total/average	84,039	83	17	88,464
		ing agreements, and we estima				1 5
G4-12	The organization's supply chain	ing agreements, and we estima were members of an independe In total, around 41,000 (43,000 to the Volvo Group. In 2016, the services totalling SEK 205.9 (2 our suppliers are included in the	ent trade uni) suppliers o Group mad 10.6) billion	on, see A deliver pro le purchas . Details o	SR16 page oducts and ses of good	nployees 60. services s and

Indicator	Description	Notes and references
G4-14	Whether and how the precautionary approach or principle is addressed by the organization	Our Code of Conduct sets out our approach to the precautionary principle, as follows: The Volvo Group shall avoid materials and methods posing environmental and health risks when suitable alternatives are available. Particular emphasis shall be put on evaluating the potential risks of present and future substances and operations in order to minimize the negative impact on the environment. Available at www.volvogroup.com.
G4-15	Externally developed economic, environmental and social charters, principles, or other initiatives to which the organisation subscribes or which it endorses	The Volvo Group has been a signatory to the United Nations Global Com- pact (UNGC) on socially responsible business practices since 2001. We actively support the aims of several of the UN's Sustainable Development Goals, see ASR16 pages 64 to 67. The Volvo Group uses the Greenhouse Gas (GHG) Protocol Corporate Standard and reports on scope 1 and 2 GHG emissions in the ASR16 (page 52). Volvo Group also measures the 15 factors in scope 3 of the GHG Protocol standard. The use of our products represents 98% of the Volvo Group's total carbon footprint. Therefore we focus on reducing our products' emissions. We participate in the WWF Climate Savers program and have committed to reducing product lifetime emissions by 40 Mton CO ₂ between 2015– 2020. For 2015–2016, total savings were 9 Mton CO ₂ , see ASR16 page 44
G4-16	Memberships of associations (such as industry associations) and national or international advo- cacy organizations	In 2010, Volvo Group was the world's first automotive manufacturer approved by WWF to participate in their Climate Savers program. In 2014, we renewed our commitment for the period 2015 to 2020, see ASR16 page 44 In 2014, the Volvo Group CEO was appointed co-chair of the United Nations (UN) High-level Advisory Group on Sustainable Transport, which delivered its report and recommendations in 2016, see ASR16 page 73. The Volvo Group is an active member of the Swedish Leadership for Sustainable Development network and the World Economic Forum. We actively participate in many trade and industry forums including:
		 American Bus Association American Public Transport Association American Trucking Associations Association of Equipment Manufacturers in the US Committee for European Construction Equipment (CECE) European Association of Internal Combustion Engine Manufacturers (Euromot) European Automobile Manufacturers' Association (ACEA) The world's road transport organisation (IRU) International Transport Forum (ITF) International Union of Public Transport (UITP) Japan Automobile Manufacturers Association (JAMA) National Marine Manufacturers Association Society of Indian Automobile Manufacturers (SIAM)

GENERAL STANDARD DISCLOSURES				
Indicator	Description	Notes and references		
MATERIAL ASPECTS AND BOUNDARIES				
G4-17	All entities included in the organization's consolidated financial statements or equivalent documents.	Our accounting principles and definition of entities are covered in the Notes to the financial statements in our ASR16, starting on page 113.		
G4-18	The process for defining the sustainability content and the aspect boundaries	Identification: an internal workshop with colleagues from Legal, Compliance, Strategy, Sales, Finance, Investor Relations, CSR including Production and Supply Chain, HR and Communication reviewed 2015's materiality analysis plus a wide range of sources, including internal business reporting, global drivers, investor questions, media stories, competitor activity, customer surveys, and legislation. They identified the topics of highest impact on the business's ability to create value over time and topics of most interest to the stakeholders they work most closely with.		
		Prioritization: the 2016 shortlist of topics was prioritized through quantitative and qualitative means. Volvo Group employees across a representative spread of geographies and business units used a web-based survey to rate each topic according to its potential impact on the business and likelihood of occurrence. The topics of highest importance to stakeholders were determined through feedback from our 2016 face-to-face stakeholder dialogues, which was used to qualify the quantitative survey results from 2015, where data was weighted according to stakeholder influence. The results were used to map out the topics in a materiality matrix and boundaries were identified internally.		
		Validation: members of the Group Management approved that the material topics accurately reflect the organization's material sustainability issues and validated nine priority areas to be reported with added detail in the ASR16 and this GRI Index.		
		See ASR16 page 26.		

Indicator	Description	Notes and references
G4-19	List all the material aspects identified in the process for defining report content	The materiality matrix (shown below) was used to identify all the sustaina- bility topics and priorities for reporting on in the ASR16 and/or GRI Index. The following were identified as being of both very high impact on the business and very high importance to stakeholders: business ethics and integrity; compliance; customer success; emissions (products); energy efficiency (products); product safety and security; financial health; intelli-



There are no major changes related to the ranking of aspects in terms of materiality compared to 2015, however some of the topics and definitions have been updated to align with our new mission, vision, aspirations, values and strategic priorities (2015 topics and definitions in italics)

gent technology and admired employer. See ASR16 page 27.

Material topics and definitions (alphabetical order)

Admired employer: being the most admired employer in our industry. Leading and embracing change. Attracting people with a strong business instinct and developing a skilled and agile workforce with the optimal knowledge and competences at all levels. Trusting and empowering colleagues to use their intuition and make the right decisions.

Skilled workforce: Ensuring the optimal workforce composition, attracting and developing people with required skills and competences, retaining talent and managing the talent pipeline.

Business ethics and integrity: creating, leading and maintaining a responsible culture built on the business, human rights, social and environmental principles set out in our Code of Conduct, including principles on anti-corruption, taxation and political involvement. Reflecting the values of customer success, trust, passion, change and performance.

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Indicator	Description	Notes and references
G4-19 Material aspects cont.		Business ethics and integrity: Creating a responsible culture, and risk awareness, built on Volvo Group values, leadership, transparency and our Code of Conduct; covering anti-corruption and bribery; due diligence; tax strategy and political neutrality.
		Customer success: engaging with customers to truly understand their business challenges, needs and ambitions. Creating value for customers by delivering transport solutions that increase profitability through lower running costs and higher revenues, thanks to improved uptime, fuel efficiency and productivity.
		Customer satisfaction: Enhancing customer relationships and building long-term brand loyalty and business partnerships by understanding cus- tomer needs, delivering the right products and services, and taking a total lifecycle approach to support customer profitability through quality, fuel efficiency, uptime, and aftermarket services.
		Diversity & inclusion: enabling the diversity of thought in our global workforce to fuel our passion and drive innovation. Creating and ensuring an inclusive work environment that empowers employees of all back-grounds, gender, gender identity, nationality, ethnicity, disability, age, sexual orientation and religion to contribute to their full potential.
		Diversity and inclusion: Working with energy, passion and respect for the individual to ensure diversity and inclusion across the Volvo Group and its governance boards and committees. Respecting equality of gender, nationality, ethnicity, racial origin, age, sexual orientation and educa- tional background.
		Emissions (products): developing innovative transport solutions designed to reduce consumption of fossil fuels and lower emissions of CO ₂₁ NOx, particulate matters and noise.
		Energy efficiency (products): developing innovative product and service solutions designed to reduce energy consumption, operational costs and environmental impacts.
		Financial health: managing economic and financial risks and develop- ing resilience to market volatility. Focusing on our new strategic priorities to reinforce and regain market share; grow by meeting customer needs in specific segments; and secure industry-leading profitability. Generat- ing and distributing economic value to various stakeholders.
		Financial health: Implementing our strategies for efficiency, profitability and growth to generate strong short- and long-term value; managing eco- nomic and financial risks, and distributing economic value to various stakeholders.
		Health, safety & wellbeing: ensuring safe and healthy workplaces and aiming for zero accidents along our value chain. Protecting the physical and psychological safety, health and wellbeing of Volvo Group employees and workers. Promoting and supporting health and wellbeing for employees and their families.
		Workplace health estate and wellbeing Providing safe workplaces and

Workplace health, safety and wellbeing: Providing safe workplaces and aiming for zero accidents throughout our value chain. Protecting and promoting the physical and psychological safety, health and wellbeing of Volvo Group employees.

Indicator	Description	Notes and references
G4-19 Material aspects cont.		Human rights: fulfilling our obligations as signatories to the UN Global Compact: respect for human rights, such as labor rights, freedom of association, land ownership; no child or forced labor; non-discrimination – both within Volvo Group and our value chain. Managing risk through due diligence in high-risk markets.
		Industry leadership and partnership: being recognized as a thought leader, contributor and magnifier for sustainable innovation that drives growth within our sector. Taking a leading role on international sustain- able transport platforms and development goals. Partnering with leading universities and research partners to advance sustainable change in our industry. Collaborating with project partners and influencing policy makers. Actively participating in networks and sharing knowledge with trade organizations.
		Leadership and knowledge sharing: Taking a leading role on global sustainability platforms, development goals and programs, collaborating with leading universities and research partners, participating in networks and sharing knowledge with trade organizations, project partners and policy makers.
		Intelligent technology: investing in pioneering research and development for innovative technology, transport and service solutions to contribute to efficient transport systems. Investing in connectivity, automation, safety, data protection and security. Adapting products and services to reduce congestion and improve the economic, social and environmental dimensions of mobility, distribution and infrastructure.
		Legal compliance: ensuring compliance with all applicable corporate, fiscal, environmental, socioeconomic and data privacy laws, regulations, directives, international standards and widely-recognized initiatives. Continuous development of our corporate governance, policies and practices to ensure adherence.
		Legal compliance: Continuous development of our corporate governance, policies and practices to ensure adherence and compliance with all appli- cable laws, regulations and directives.
		Operational impacts (environmental): managing the environmental footprint of our production, distribution, dealerships, workshops and corporate functions. Being a global corporate citizen and a good neighbor by minimizing and mitigating our environmental impacts on local communities near our facilities. Using resources – energy, materials, chemicals, water – frugally and efficiently. Minimizing our operational waste, emissions of greenhouse gases, pollutants and noise, transport and logistics.
		Environmental impacts (operations): Managing and mitigating the impact of our production, distribution, dealerships, workshops and corporate functions in terms of energy, materials, emissions, chemicals, water, waste, transport and logistics. Minimizing impacts on local communities.
		Product safety and security: researching and developing product, technology and training solutions designed to enhance driver and operator safety, traffic and site safety, and goods security.

Indicator	Description	Notes and references
G4-19 Material aspects cont.		Product use & lifecycle: promoting socially, environmentally and eco- nomically responsible use of Volvo Group products. Engaging with stake- holders concerned about downstream product uses. Optimizing resource efficiency and supporting socio-economic opportunity in the circular economy of reuse, recycling and remanufacturing.
		Product use and end of life: Promoting socially and environmentally responsible use of Volvo Group products; engaging with stakeholders concerned about downstream product uses; and developing opportunities to support environmental and economic sustainability through reuse, recycling and remanufacturing.
		Societal engagement: contributing to a prosperous and resilient society and the Sustainable Development Goals by addressing the societal challenges related to our industry. Taking a shared value approach to corporate citizenship and moving both our business and society forward through partnerships, programs and employee volunteering opportunities that support environmental sustainability, traffic and worksite safety, and skills development. Donating resources to disaster relief efforts.
		Societal engagement: Taking a shared value approach to corporate citi- zenship and moving both our business and society forward through part- nerships, programs and employee volunteering opportunities that support environmental sustainability, traffic and worksite safety, and skills devel- opment. Donating resources to disaster relief efforts.
		Supply chain: creating long-term partnerships. Balancing cost and quality. Procuring locally where possible and applicable. Delivering on our plans. Encouraging economic, social and environmental responsibility among all suppliers. Conducting CSR assessments and providing support among Tier 1 suppliers; suppliers of high-risk materials (conflict minerals) and suppliers in high-risk countries.
		Supply chain: Cost and quality; socially and environmentally responsible supply chain; CSR assessments and support; local procurement; long- term partnerships; delivery of plans.
G4-20	For each material aspect, report the boundary within the organization	The Volvo Group has varying levels of control over all the material aspects. Topics where the boundary is fully within the organization include: admired employer; business ethics and integrity; diversity and inclusion; emissions (products); energy efficiency (products); health, safety and wellbeing; human rights; industry leadership and partnerships; operational impacts (environmental); product safety and security; societal engagement and supply chain.
G4-21	For each material aspect, report the boundary outside the organization	The Volvo Group takes a whole value chain approach to sustainability with the customer at the center. We expect our business partners and suppliers to meet our standards on business ethics and integrity; diversity and inclu- sion; health, safety and wellbeing; human rights; operational impacts (envi- ronmental) and supply chain, as described in our Code of Conduct. The topics of compliance (regulatory); customer success; financial health; intelligent technology and product use and lifecycle are all subject to external influences and/or decisions from regulatory bodies; customers; market development; and infrastructure, which are outside our direct control. Read more about our value chain in the ASR, starting at page 30 and external factors on pages 16 and 17.
G4-22	Effect of any restatements of information provided in previous reports	Scope 1 and 2 CO_2 emissions data has been recalculated to take 2012 revisions to boundaries and emissions factors into account. This has resulted in corrections to the emissions data provided in the GRI Report 2015.

Indicator	Description	Notes and references
G4-23	Significant changes from previous reporting periods in the scope and aspect boundaries	The most significant change in scope and boundary is the topic 'cus- tomer success' (formerly customer satisfaction). The revised topic and definition reflects the Volvo Group's new strategic priorities, mission, vision, aspirations and values. While the boundary for customer satisfac- tion is clearly within the organization, the boundary for customer success is both within and outside the organization. See ASR16 pages 32 to 34.

G4-24, 2	5. 26. 27	Stakeholder	How we	Kovintorosta
0121,2		Group	engage	Key interests
		Customers	 Daily interactions Satisfaction and brand image surveys Dialogue via social media Joint initiatives 	Fuel efficiency, uptime and productivity
		Employees	 Annual review of personal business plan Annual employee engage- ment survey Regular team meetings Intranet In-house magazines Videos, webcasts and online chats 	Human rights, admired employer, business ethics an integrity
		Investors	 Capital market days Regular investor meetings and dialogue Annual Socially Responsible Investor dialogue General meetings Annual and interim reports Press releases 	Financial health, business ethics and integrity, compli- ance, admired employer, energy efficiency and intelli- gent technology
		Business partners, suppliers and trade unions	 Regular meetings and dialogue Partners: APP, industry organization memberships, joint initiatives Supplier portal, supplier days, training sessions, assessments, audits and awards Unions: Representation on AB Volvo Board, Volvo Group Dialogue, Volvo Group Works Council meetings 	Supply chain, compliance, environmental impacts
		Society, including NGOs and local community	 NGO dialogue and joint initiatives Volunteering, training programs, campaigns 	Compliance, human rights, societal engagement
DEDADT	PROFILE			
G4-28 G4-29	Reporting period Date of most recent previous report	January 1 to Dece The Volvo Group A www.volvogroup.co	nnual and Sustainability Rep	oort 2015 is available on

G4-30	Reporting cycle
G4-31	Contact point

eva.lindeback-brandt@volvo.com

Annual

Indicator	Description	Notes and references
G4-32	GRI content index	This report includes disclosures at the 'Core' reporting level. This index
		shows where further information can be found.
G4-33	External assurance	The GRI content of the ASR16 and this index has not been externally assure
GOVERN	ANCE	
G4-34	Governance structure of the organization, including CSR	The Corporate Governance Report is contained within the ASR16, starting on page 170.
		Sustainability governance In 2016, we reviewed and updated our CSR and sustainability model under the leadership of Henry Sténson, Executive Vice President Corpor rate Communication & Sustainability Affairs and member of Volvo Group Executive Board. The CSR and sustainability approach focus on areas that support the Volvo Group's new mission, vision, aspirations, values and strategic prior ties and secures business value creation and integration with the SDGs The Corporate CSR and Sustainability function develops the strategic model for the work while responsibility of delivery lies within business areas or entity closest to the objective.
		Group CSR Coordination Network The Volvo Group CSR Coordination Network supports and develops the Corporate CSR work. It focuses on work related to responsible business practice and the implementation of our Code of Conduct principles into daily operations. The network is chaired by the Volvo Group's Senior Vice President, Corporate Social Responsibility. The network members include CSR managers from across the Group who represent different relevant pro- cesses for implementing our Code of Conduct principles with the sup- port of their own CSR networks.
		CSR country network The CSR country manager network implements an effective societal engagement program. The members of this group co-ordinate CSR activity in their country and share experiences of their work on the Volvo Group's societal engagement program.
ETHICS A	AND INTEGRITY	
G4-56	The organization's values, principles, standards and norms of behavior such as codes of conduct and codes of ethics	Five values In 2016, the Volvo Group introduced five new values as part of our new strategic direction: customer success, trust, passion, change and per- formance. See ASR16 pages 15 and 58.
		Code of Conduct The Volvo Group Code of Conduct is a mandatory Group-wide policy for appropriate ethical business behavior and responsibility towards our stakeholders. Its content is based on international norms, including the United Nation's (UN) Global Compact and the OECD's guidelines for multinational companies. The Code is publicly available on www.volvogroup.com/responsibility. is complemented by around 20 other policies that describe in more deta how we address the code's minimum standards. In 2016, we launched the interactive Game of Conduct to increase awareness and knowledge of the Code's contents.

See ASR16 page 66.

Indicator	Description	Notes and references
ECONON	ліс	
ECONOM	IC PERFORMANCE	
G4-DMA	Generic Disclosures on Management Approach (materiality, management and assessment)	Financial health is the prerequisite for doing business and creating long- term value for our shareholders. In 2016, we introduced a new strategic direction, with seven strategic priorities, based on understanding our customer's priorities and challenges and providing products and services that grow customers' revenues and decrease customers' costs. Full details of our approach to management of economic performance can be found throughout the ASR16.
G4-EC1	Direct economic value generated and distributed	In 2016, Volvo Group generated sales of SEK 302 billion (313). Key ratios can be found on page 1 of the ASR16. The distribution of value to stakeholders is detailed on page 64.
G4-EC2	Financial implications and other risks and opportunities for the organization's activities due to climate change	Climate change presents multiple opportunities for both our products and production. Environmental concerns drive interest and opportunities in sustainable transport solutions including increased fuel efficiency; reduction of emissions; electromobility, alternative and renewable fuels. Increased energy efficiency within our operations has resulted in signifi- cant cost savings – SEK 300 million comparing 2016 to 2006. Our remanufacturing business is well placed to benefit from the great poten- tial of the circular economy. Read more in the ASR16 value chain section starting on page 30.
G4-EC4	Financial assistance received from government	In 2016, government grants of SEK 687 million (495) were received, and SEK 592 million (682) was recognized in the income statement. The amount includes tax credits of SEK 290 million (280) related to product development, which were primarily received in France and the United States. Other grants were mainly received from Swedish, Chinese and US governmental organizations and from the European Commission. See ASR16 note 26 on page 151.
PROCURI	EMENT PRACTICES	
G4-DMA	Generic Disclosures on Management Approach	In 2016, the Group made purchases of goods and services totalling SEK 205.9 billion (210.6). We have around 41,000 (43,000) Tier 1 contractors, of which about 7,000 (6,500) supply automotive product components. We aim to build long-term relationships with suppliers and require all suppliers to adhere to our Code of Conduct and contribute to our socially and environmentally responsible supply chain. We procure from suppliers as close to our production sites as possible and expect all suppliers to be cost efficient and deliver the highest quality standards on products and services. We assess automotive suppliers' CSR performance; require them to be certified by a third-party environmental management system; and to comply with all other relevant legislation. For more detail, see the ASR16 Purchasing section on pages 48 and 49.

SPECIFI	C STANDARD DISCLOSURES	
Indicator	Description	Notes and references
ENVIRO	NMENTAL	
MATERIA	LS	
G4-DMA	Generic Disclosures on Management Approach	The Volvo Group works consistently with lean methodologies and the Volvo Production System (VPS) to use less material and to integrate more recycled materials. The ability to reuse, recycle, renovate and repair parts and components is considered as part of product development and supports our growing remanufacturing business. See ASR16 pages 53, 56 and 57. We also assess the use and sourcing of precious metals, such as platinum. During the year, we continued our work aimed at ensuring that potential conflict minerals originate from approved smelters. See ASR16 page 48.
G4-EN1	Materials (renewable and non-renewable) used by weight or volume	A truck produced by the Volvo Group is largely recyclable since almost 85% of its weight consists of metal – mostly iron, steel and aluminium. The additional materials are mainly plastic, rubber and material from electronics components. See ASR16 page 56.
ENERGY		
G4-DMA	Generic Disclosures on Management Approach	In 2010, Volvo Group was the world's first automotive manufacturer approved by WWF to participate in their Climate Savers program. In 2014, we renewed our commitment for the period 2015 to 2020, see ASR16 page 44. The new commitment includes an 8% reduction in energy use at our production sites by identifying and executing energy saving activities, reaching a level of 150 GWh by 2020. Within the WWF Climate Savers there is a commitment to reduce total lifetime CO_2 emissions from products by 40 million tons. The reduction of lifetime CO_2 emissions is to come from fuel efficiency targets on 15 product categories in total – ranging from the Volvo FH truck to the Volvo Construction Equipment wheel loader and Volvo Penta engines. See ASR16 pages 44 and 52.
G4-EN3	Energy consumption within the organization	The Group's 2016 total energy consumption amounted to 2,076 GWh, similar to the 2,077 GWh used in 2015. See ASR16 page 52.
G4-EN5	Energy intensity ratio	Our energy efficiency index, which compares energy consumption with net sales, was 7.1 MWh/SEK M in 2016. Over the last five years, our energy efficiency index has improved by 16%. See ASR16 page 52.
G4-EN6	Reduction of energy consumption	Between 2006 and 2016, the Volvo Group's energy use from its own production processes decreased by 20% in absolute terms. This means that the corresponding energy cost has decreased by more than SEK 300 million comparing 2016 to 2006. The accumulated saving is significantly larger. See ASR16 page 52.
G4-EN7	Reductions in energy requirements of products and services	Our lifecycle assessments show that more than 98% of our products' environmental impacts occur during the 'in use' phase, with fuel consump- tion and emissions as the main contributors. See ASR16 page 39.
WATER		
G4-DMA	Generic Disclosures on Management Approach	Water measurement is included in the Group's minimum environmental requirements for production relating to substances in process water. The standard also requires plants to address sustainable usage of water resources. Total water consumption and intensity continue to decrease, from 4,919,000m ³ in 2015 to 4,430,000m ³ in 2016 and 16.2m ³ /SEK M to 15.2m ³ /SEK M. The Volvo Group works with preventive and mitigating activities based on an evaluation of areas with the highest water-related risks. See ASR16 page 200.

SPECIFIC STANDARD DISCLOSURES		
Indicator	Description	Notes and references
EMISSION	٩S	
G4-DMA	Generic Disclosures on Management Approach	The Volvo Group focuses on reducing emissions of both our products and our production processes. Within the WWF Climate Savers commitment our target is a cumulative reduction of CO_2 emissions from products and production by at least 40 million tons by 2020 compared to 2013. We currently have carbon-neutral facilities in Ghent, Belgium, as well as Vara, Tuve and Braås in Sweden. About 40% of our total energy consumption came from low-carbon renewable sources, including hydropower electricity and biomass heating. The Volvo Group publicly reports scope 1 and 2 emissions according to the Greenhouse Gas (GHG) Protocol Corporate Standard. Volvo Group also measures the 15 factors in scope 3 of the GHG Protocol standard. See ASR16 page 52.
G4-EN15	Direct greenhouse gas (GHG) emissions (Scope 1)	Scope 1 ('000 metric tonnes of CO ₂ e): 2016: 211 2015: 220 2014: 231 2013: 255 2012: 273
		See ASR16 page 52.
G4-EN16	Energy indirect GHG emissions (Scope 2)	Scope 2 ('000 metric tonnes of CO ₂ e): 2016: 196 2015: 192 2014: 218 2013: 243 2012: 260 See ASR16 page 52.
G4-EN17	Other indirect GHG emissions (Scope 3)	Volvo Group also measures the 15 factors in Scope 3 of the GHG Proto- col standard. The use of our products represents 98% of the Volvo Group's total carbon footprint. Therefore we focus on reducing our prod- ucts' emissions. In our commitment to WWF Climate Savers we have a target to reduce product lifetime emissions by 40 Mton CO_2 between 2015–2020. For 2015–2016, the savings totalled 9 Mton CO_2 . See ASR16 pages 44 and 52.
G4-EN19	Reduction of greenhouse gas (GHG) emissions	Volvo Group's total CO_2 emissions (scopes 1 and 2) from production facilities decreased by 1% in 2016 – from 412,000 tons to 407,000 tons. See ASR16 page 52.
G4-EN21	NO_x , SO_x , and other significant air emissions	Volvo Group complies with emissions regulations worldwide. In many parts of the world, these are based on EU and US legislation. With the implementation of US 2010 in North America, emissions levels for par- ticulates and nitrogen oxides (NOx) have decreased substantially. Euro 6 (2013) requires emissions of nitrogen oxides and particulate matter to be reduced by more than 95% compared to a truck from the early 1990s. See ASR16 pages 68 and 69.

SPECIFIC	C STANDARD DISCLOSURES	
Indicator	Description	Notes and references
EFFLUEN	TS AND WASTE	
G4-DMA	Generic Disclosures on Management Approach	The Volvo Group's minimum requirements on production plants include sorting and quantifying all waste at source, implementing measures to reduce the quantity of waste and increase reuse, material recycling and energy recovery as well as reducing the quantity of waste consigned to landfill. Waste is usually classified as either hazardous or non-hazardous. The total amount of waste in 2016 was 271,980 tons compared to 297,361 tons in 2015. Hazardous waste was 27,649 tons in 2016 (27,824). Hazardous waste sent to landfill amounted to 748 tons in 2016 (1,155). Historical hazardous waste data is in ASR16 on page 200. Our global environmental standard for production plants requires pro- cesses for health and environmental assessment of all chemicals. Since 1996, to restrict the use of chemicals with unwanted characteristics, the Volvo Group has maintained a 'black list' of prohibited chemicals and a 'grey list' of products whose use must be limited. The lists are revised annually and serve as tools for substituting harmful substances in our production processes. During 2016, Swedish sites worked to replace the standard metal cutting fluid with a more efficient and environmental alternative, which resulted in a cost saving of SEK 500,000. Continuous improvement work in one of our paint shops has reduced the total use of Volatile Organic Compounds (VOC) by 35%, mainly by substitution with a more efficient purge solvent.
PRODUCT	S AND SERVICES	
G4-DMA	Generic Disclosures on Management Approach	 The Volvo Group takes a whole value chain approach to sustainability – from development through to reuse – with customer focus at the center. We place strong emphasis on reducing the impacts of our products in use, as this is where more than 98% of environmental impact occurs. Focusing our product development on using resources and energy more efficiently simultaneously reduces the overall environmental footprint of our products while supporting our customers' profitability. Clear and transparent product, marketing and sales information is important for customers to make an informed decision about our product and services. Therefore, customers receive environmental product information for many of our products, based on the result of lifecycle assessment. The information is divided into three sections: Production: energy consumption, emissions and waste arising during production. Use: fuel consumption, emissions and spare parts during the use phase. End of life: scrapping and recycling of products. All Volvo Group-owned dealers work according to the Group's environmental requirements and towards fulfillment of the ISO 14001 standard. This means they receive, for example, detailed instructions on how used oils and other fluids are to be handled. For more information, see the ASR16 value chain starting on page 30.
G4-EN27	Extent of impact mitigation of environmental impacts of products and services	As well as engineering and technological innovation, we also invest in driver training and servicing solutions to support more fuel-efficient driving and to keep vehicles running at optimal performance. Our growing remanufacturing business reduces impacts significantly. See ASR16 pages 38, 42, 54 and 56.
COMPLIA	NCE (ENVIRONMENTAL)	
G4-DMA	Generic Disclosures on Management Approach	Compliance with legal and other applicable standards as a minimum standard is included in the Volvo Group environmental policy. See www.volvogroup.com/responsibility
G4-EN29	Monetary value of significant fines and total number of non-monetary sanctions for non-com- pliance with environmental laws and regulations	None in 2016.

SPECIFI	C STANDARD DISCLOSURES	
Indicator	Description	Notes and references
TRANSPO	DRT	
G4-DMA	Generic Disclosures on Management Approach	The Volvo Group is one of the world's leading manufacturers of trucks, buses, construction equipment and marine and industrial engines. Our product development focuses strongly on sustainable transport solutions. See ASR16 page 38. The carbon emissions of freight transport involved in the supply of materials to the Volvo Group and deliveries to customers are about the same size as the CO_2 emissions from our production plants. Therefore this is a prioritized area and part of our WWF Climate Savers commitment. See ASR16 pages 44 and 52.
G4-EN30	Significant environmental impacts of transport- ing products and other goods and materials for the organization's operations	The majority of the Volvo Group's major transport suppliers are certified in accordance with ISO 14001, or equivalent. By 2020, our WWF Climate Savers target is to reduce CO_2 emissions per produced unit from the Volvo Group freight transport by 20%, compared to the base year 2013. See the ASR16 page 44 for targets and page 52 for the latest perfor- mance.
SUPPLIEF	R ENVIRONMENTAL ASSESSMENT	
G4-DMA	Generic Disclosures on Management Approach	Since 1996, our responsible sourcing program has consistently increased supplier requirements on environmental issues, business ethics, human rights and social issues. The Volvo Group requires suppliers of automotive components to be certified by a third-party environmental and quality management system. The Volvo Group uses a self-assessment approach to evaluate potential and current suppliers' performance and compliance with our Code of Conduct requirements, including environmental care. See ASR16 page 48.
G4-EN33	Significant actual and potential negative environmental impacts in the supply chain and actions taken	There were no major environmental incidents reported during 2016. See ASR16 page 50.
ENVIRON	MENTAL GRIEVANCE MECHANISMS	
G4-DMA	Generic Disclosures on Management Approach	All employees are expected and encouraged to report suspected viola- tions to their superiors. If reporting to superiors is not feasible or possi- ble, a whistleblower procedure is available, which gives employees access to the Head of Corporate Audit and the opportunity to remain anonymous where permitted by law. See ASR16 page 67.
SOCIAL:	LABOR PRACTICES	
EMPLOYN	/ENT	
G4-DMA	Generic Disclosures on Management Approach	At the end of 2016, we employed nearly 95,000 people in 190 markets. The Volvo Group aims to have the right number of people with the right competences in the right place at the right time, at the right cost. See ASR16 starting at page 58. Our commitment to all employees is set out in our Code of Conduct, which is supported by various human resources policies. Available at: www.volvogroup.com
LABOR/N	ANAGEMENT RELATIONS	
G4-DMA	Generic Disclosures on Management Approach	The Volvo Group respects the right of all employees to join an associa- tion to represent their interests as employees, to organize and to bargain collectively or individually. An employee's right to refrain from joining a union is equally respected. There are several dialogue platforms for our employees. See ASR16 page 60.

SPECIFI	SPECIFIC STANDARD DISCLOSURES		
Indicator	Description	Notes and references	
HEALTH,	SAFETY & WELLBEING		
G4-DMA	Generic Disclosures on Management Approach	Health and safety is the responsibility of employees and managers, who are supported by Health and Safety network specialists for implementing roadmaps and activities. The Volvo Group's global health and wellbeing programs cover various initiatives including medical examinations, ergonomics and rehabilitation support, as well as health promotion programs such as smoking cessa- tion activities. These programs and activities sometimes extend to the employee's family members. See ASR16 page 61.	
G4-LA6	Injury, occupational diseases, lost days, absenteeism, and total number of work- related fatalities	In 2016, our Lost Time Accident Rate (LTAR) was 1.06 (1.38) covering 100% (91) of employees. For the second year running, there were no fatalities. See ASR16 page 61.	
TRAINING	AND EDUCATION		
G4-DMA	Generic Disclosures on Management Approach	Every year we allocate around half a million training days to our employ- ees and retail organizations worldwide. The Volvo Group University is established as our center of further education and learning activities to efficiently ensure our strategy in all major competence areas in the Group. See ASR16 page 60. For more information, visit www.volvogroup.com	
G4-LA10	Programs for skills management and lifelong learning	Programs include our International Graduate Program and Academic Partner Program. All employees are expected to have a personal business plan that includes business-related and competence development targets, and provides essential feedback for both short- and long-term individual development. See ASR16 pages 59 and 60 and www.volvogroup.com	
G4-LA11	Percentage of employees receiving regular performance and career development reviews	All employees review their plan annually together with their manager to ensure mutual understanding of roles and expectations.	
DIVERSIT	Y AND EQUAL OPPORTUNITY		
G4-DMA	Generic Disclosures on Management Approach	We strive to promote a diverse workforce and do not tolerate any form of discrimination, as detailed in our Code of Conduct. While diversity is considered to be a global competitive force, it still must be handled in a local way since diversity challenges can be different in different places. Therefore, in order to maximize the positive results of diversity, it is expected that there are many different local and business specific diversity goals and action plans. We track gender, nationality, age and internal experience when managing our talent pipeline. Tailored plans are enacted at a local level for additional areas of diversity. We actively work to recruit and retain a broad spectrum of employees with different backgrounds, experiences and perspectives. To minimize impacts of bias during recruitment, it is required that all white-collar positions should be openly posted for at least ten business days to prevent recruitment through exclusive networks, and at least one woman and one man should sit on each recruitment panel. We have various diversity networks. See ASR16 page 62 and www.volvogroup.com	
SUPPLIEF	SUPPLIER ASSESSMENT FOR LABOR PRACTICES		
G4-DMA	Generic Disclosures on Management Approach	All suppliers are expected to meet our minimum standards, as set out in our Code of Conduct. Our supplier assessment poses approximately 40 questions relating to the principles in our Code of Conduct, including human and labor rights. See ASR16 page 48.	

SPECIFIC STANDARD DISCLOSURES		
Indicator	Description	Notes and references
LABOR P	RACTICE GRIEVANCE MECHANISMS	
G4-DMA	Generic Disclosures on Management Approach	All employees are expected and encouraged to report suspected viola- tions to our Code of Conduct to their superiors. A whistleblower proce- dure is available, which gives employees access to the Head of Corpo- rate Audit and the option to remain anonymous. See ASR16 page 67.
SOCIAL:	HUMAN RIGHTS	
HUMAN F	RIGHTS INVESTMENT	
G4-DMA	Generic Disclosures on Management Approach	The Volvo Group is a signatory to the UN Global Compact. Specific poli- cies guide our work such as our Code of Conduct, our Health and Safety Policy and our Responsible Supply Chain Directive. See ASR16 page 67 and www.volvogroup.com.
NON-DIS	CRIMINATION	
G4-DMA	Generic Disclosures on Management Approach	The Volvo Group does not tolerate any form of discrimination, as outlined in our Code of Conduct. Available at: www.volvogroup.com.
FREEDOM	OF ASSOCIATION AND COLLECTIVE BARGAIN	ING
G4-DMA	Generic Disclosures on Management Approach	The Volvo Group respects the right of all employees to join an associa- tion to represent their interests as employees, to organize and to bargain collectively or individually. An employee's right to refrain from joining a union is equally respected. See ASR16 page 60.
CHILD LA	ABOR	
G4-DMA	Generic Disclosures on Management Approach	The Volvo Group does not tolerate any form of child labor, as outlined in our Code of Conduct. We define the minimum employment age as the age for completion of compulsory school but never less than 15 years. See www.volvogroup.com.
FORCED	OR COMPULSORY LABOR	
G4-DMA	Generic Disclosures on Management Approach	The Volvo Group does not tolerate any form of forced or compulsory labor, as outlined in our Code of Conduct. Available at: www.volvogroup.com.
SUPPLIE	R HUMAN RIGHTS ASSESSMENT	
G4-DMA	Generic Disclosures on Management Approach	Human and labor rights in our supply chain are assessed as part of our responsible sourcing processes. High-risk segments and extreme and high-risk countries are defined in our CSR Country Risk Atlas. The atlas is tailor made for the Volvo Group using risk indices from a global risk analytics company and is based on the principles in our Code of Conduct. We use the same atlas when assessing customers from a business ethics, social and environmental perspective, as described in ASR16 on page 54. During the first six months of 2017, we will publish our first Modern Slavery Statements for relevant companies within the Volvo Group.
HUMAN F	RIGHTS GRIEVANCE MECHANISMS	
G4-DMA	Generic Disclosures on Management Approach	All employees are expected and encouraged to report suspected viola- tions to their superiors. A whistleblower procedure is also available, which gives employees access to the Head of Corporate Audit and the opportunity to remain anonymous where permitted by law. See ASR16 page 67.

_	C STANDARD DISCLOSURES	
	Description	Notes and references
SOCIAL:	SOCIETY	
LOCAL CO	OMMUNITIES	
G4-DMA	Generic Disclosures on Management Approach	Volvo Group's approach to societal engagement consists of shared value activities, disaster relief, donations and community support. It involves driving Corporate Social Responsibility (CSR) initiatives, establishing strategic partnerships and encouraging employee participation in volunteering opportunities. In addition to our global efforts, we take a country-based approach to CSR. See ASR16 page 72.
ANTI-COF	RUPTION AND ANTI-COMPETITIVE BEHAVIOR	
G4-DMA	Generic Disclosures on Management Approach	As set out in our Code of Conduct, the Volvo Group is committed to complying with the anti-trust (competition) and anti-corruption laws in all jurisdictions where we conduct business. See www.volvogroup.com.
G4-SO4	Communication and training on anti-corruption policies and procedures	Our programs consist of a number of elements, including policies and guide- lines, a comprehensive range of training tools and discussions, counselling and support, as well as auditing and review. See ASR16 pages 66 to 68.
G4-SO7 and	Total number of legal actions for anti-competitive behavior, anti-trust, and monopoly practices and their outcomes	In January 2011, the Volvo Group and a number of other companies in the truck industry became part of an investigation by the European Commission regarding a possible violation of EU antitrust rules. The Volvo Group
G4-S08	Monetary value of significant fines and total number of non-monetary sanctions for non- compliance	cooperated fully with the Commission and the investigation was settled in 2016 with a fine of SEK 6.5 billion, see ASR16 pages 67, 79, 147 and 150. In December 2016, the Supreme Court in Seoul, Korea, dismissed the Korean Fair Trade Commission's appeal against the August 2016 High Court ruling, which found in favor of Volvo Group. See ASR16 page 150.
SOCIAL:	PRODUCT RESPONSIBILITY	
CUSTOME	ER HEALTH AND SAFETY	
G4-DMA	Generic Disclosures on Management Approach	We are committed to supporting the Sustainable Development Goals (SDG) target (3.6) of halving road traffic accidents by 2030. Our ambition is for zero harm involving the Volvo Group products. We approach this through product development and technological enhancements, as well driver and operator safety training and societal engagement campaigns aimed at vulnerable road users. See ASR16 pages 17, 33, 42 and 72.
PRODUC	TAND SERVICE LABELLING	
G4-DMA	Generic Disclosures on Management Approach	 Customers receive environmental product information for many of our products, based on the result of lifecycle assessment. The information is divided into three sections: 1. Production: energy consumption, emissions and waste arising during production. 2. Use: fuel consumption, emissions and spare parts during the use phase. 3. End of life: scrapping and recycling of products. For more information, see the ASR16 page 54.
G4-PR5	Results of surveys measuring customer satisfaction	Each brand organization within the Volvo Group tracks customer satis- faction and brand image perception through surveys worldwide. Perfor- mance is integrated in our key performance indicators reporting and is used to increase our understanding of our customers' needs. Research and studies are done by leading international organizations and inter- views are carried out with decision makers among customers and non-customers. See ASR16 page 34.

SPECIFIC STANDARD DISCLOSURES		
Indicator Description	Notes and references	
MARKETING COMMUNICATIONS		
G4-DMA Generic Disclosures on Management Approach	Information about our CSR and sustainability performance increasingly influences customers' decisions to do business with the Volvo Group, especially fleet owners. Clear and open product, marketing and sales information is essential for customers to be able to make an informed choice about our products and services.	
G4-PR6 Sale of banned or disputed products	Government Sales includes special-purpose vehicles used by govern- ment, defense, peace-keeping and relief organisations. The Volvo Group's sales of defense material, as defined in the Swedish Military Equipment Ordinance (1992:1303) section A, amounted to 0.26% (0.32) of net sales in 2016. Following a strategic review of our Government Sales business area, we announced in November 2016, our intention to divest this business. See ASR16 page 67.	
CUSTOMER PRIVACY		
G4-DMA Generic Disclosures on Management Approach	The Volvo Group believes that automation will redefine the commercial transport solutions that most of us rely on every day. It will create benefits for both our customers and society. There are however challenges with this kind of technology and some of them relate to cyber security, liabilities, standards and regulations. Volvo Group encourages progress to secure data privacy and supports the development of safe and reliable communication standards and protocols. See ASR16 pages 17 and 38.	



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