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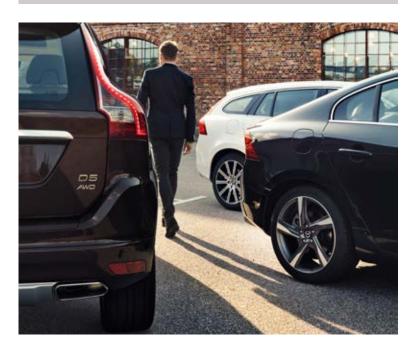
## **2015 AT A GLANCE**



ANNOUNCEMENT OF OUR ELECTRIFICATION STRATEGY

123g/km average EU fleet CO<sub>2</sub> emissions 42 GWh of energy savings in our operations

Construction start of the new manufacturing plant in South Carolina, US



New Supplier Sustainability Self-Assessment Questionnaire was launched



Launch of the XC90 Twin Engine with  $\text{CO}_2$  emissions of 49g/km



Trebled the operating income for 2015 to MSEK 6,620

More than 88,000 placed orders for the new XC90

No one should be killed or seriously injured in a new Volvo car by 2020

2,500
JOB OPPORTUNITIES

13,500
employees completed
CODE OF CONDUCT
training



3,000

FAMILIES RECEIVED CHILD CAR SAFETY TRAINING IN CHINA



INCREASED THE SHARE OF WOMEN IN LEADING POSITIONS TO



Record sales of more than 500,000 CARS

# **CEO COMMENT**

I would like to begin by making a commitment. "By 2025 we will have delivered 1 million electrified cars to the market". This means that we are placing electrification at the centre of our product and sustainability strategy.

This commitment is ambitious, but deliberately so. It will be achieved by introducing a range of plug-in hybrids and at least one pure electric vehicle in the coming years.

We have made this commitment the centrepiece of our new Sustainability Programme, which is a part of Volvo's global strategy. The programme has been christened "Omtanke", which is a Swedish word that means "consideration" or "care". It summarises Volvo Cars' approach to sustainability and has a range of individual commitments, including:

- 1 million electrified cars delivered by 2025,
- Climate neutral operations by 2025,
- A diverse and inclusive culture, with 35% of our top managers being internationally diverse and 35% women in leading positions by 2020,
- Our vision that by 2020 no one should be killed or seriously injured in a new Volvo,
- Working with international partners to promote sustainability.

As this new programme makes clear, sustainability is not something that sits outside our operations. It is something that forms an integral part of everything we do. This new sustainability programme reflects Volvo's fundamental belief that conducting business in an ethical manner and taking social and environmental responsibility is a prerequisite of being successful as a company. In this sense, we continue our support of the UN Global Compact, in which we are founding members.

Looking back on 2015, we saw a continued expansion of our industrial footprint with the decision to build a new US factory in South Carolina. This means that Volvo Cars will have an industrial presence in all three key global regions – Asia, Europe and the US. With this, our role in society is strengthened and our local customer insight is increased.

In the Gothenburg region, in Sweden, a third shift was started at our Torslanda Plant, creating nearly 1,500 new jobs. In China, the expansion continued with a new R&D centre and the continuous ramp up of local production, which resulted in 1,000 new employees joining Volvo Cars.

All these new employees are welcomed to a company that embraces diversity and with a culture where everyone is respected and able to contribute. Many innovations and features on our cars are the result of the work in such teams.

Connected and autonomous vehicles will offer many benefits to society. With these quickly emerging technologies we can make mobility safer, reduce congestion, and bring considerable productivity gains for society.

Safety leadership is a key strength for Volvo Cars, from the invention of the three-point safety belt to the latest efforts in autonomous driving technology. We see autonomous drive technology as a key enabler towards our Vision 2020: the vision that by that year, no one should be killed or seriously injured in a new Volvo.

We are acutely aware of the environmental impact of our cars and, therefore, launched our comprehensive electrification strategy during the year. The focus point is the introduction of plug-in hybrid variants across the entire range of cars, as well as the first fully electric car to be launched by 2019.

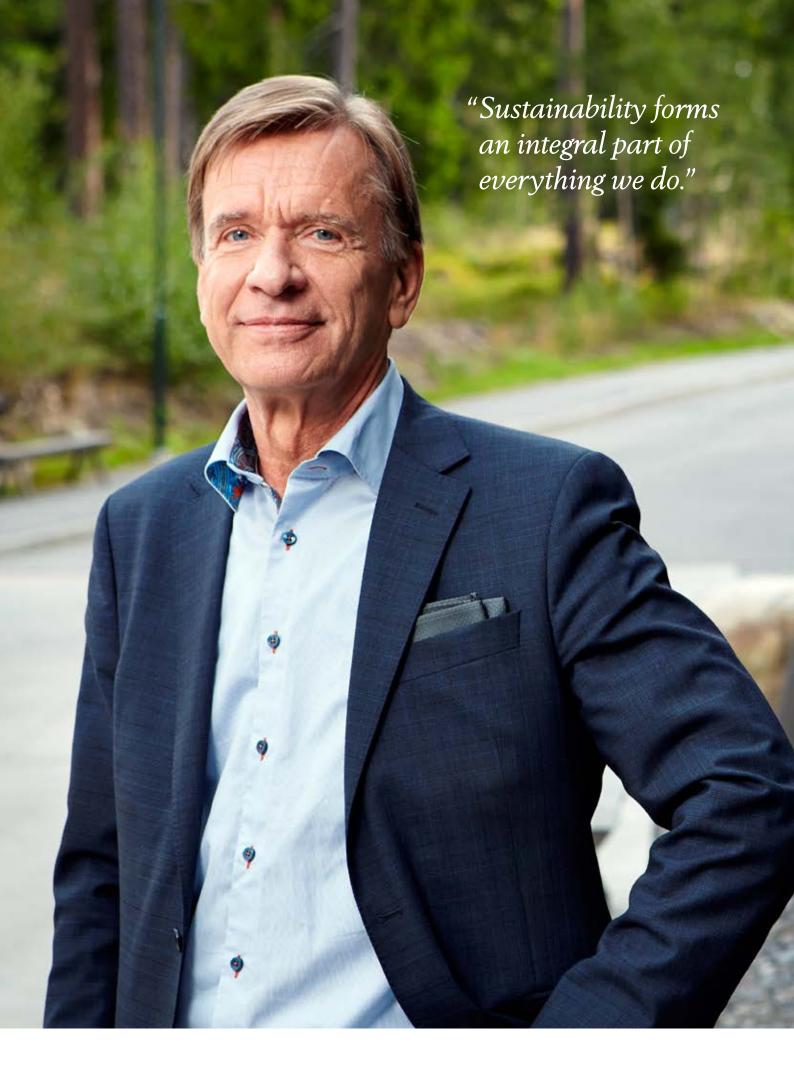
Conducting business responsibly also stretches out to our supply chain. Our suppliers are not only evaluated on their technical and development capabilities, but also need to meet social and environmental standards and are subject to a sustainability review of their own supply chain.

Financially, we sold more than half a million cars in 2015 for the first time in the company's history. At the same time we trebled the profit to MSEK 6,620. Now, with a successful 2015 behind us, Volvo Cars is about to enter the second phase of its global transformation.

I invite you to read more about our sustainability programme in this report.

#### Håkan Samuelsson

President and Chief Executive Officer



# **CORPORATE STRATEGY**

#### **COMPANY PURPOSE**

Everything we do starts with people. We understand people. We protect what's important to them and want to make them feel special. We take pride in our role within society and recognise our commitment towards the environment. We innovate to make people's lives better and less complicated. Our human-centric focus is what makes us different from all other car companies. And, it is at the heart of everything we create.

This is why Volvo cars are designed around you.

#### VISION

Our vision is to be the world's most progressive and desired premium car brand.

#### MISSION

Our global success will be driven by making life less complicated for people, while strengthening our commitment to safety, quality and the environment.

#### **CORPORATE OBJECTIVES**

Attractive products

Employer of choice for people who want to make a difference

Delivering
True premium alternatives in all our segments
Sustainable growth and profitability

#### **OUR BRAND PROMISE**

Our human-centric focus means that we start every project with a designed around you approach. Every project is based on a culture that is genuinely interested in understanding and anticipating the real needs, wants and lives of our customers. This leads to the three customer promises that guide everything we do:

#### "We understand you"

- Understanding more about how people use cars allows us to create intuitive and user-friendly technology and innovations.

#### "We protect what's important to you"

- With legendary durability, superior safety, enduring value and technologies that limit environmental impact.

#### "We make you feel special"

- With Scandinavian design, natural high-end materials and thoughtful 21st century premium in look, feel, style and service.

#### **OUR CORE VALUES**

At Volvo Cars, everything we do starts with people. Our mission to make the lives of people easier, safer and better is something that comes naturally. This is the Volvo way. Today, we are still as focused as ever on our three Core Values:

#### Safety

To strengthen our commitment to and maintain leadership in safety, we aim for top performance in real traffic situations. We do this by creating our safety offering in an intelligent and innovative way based on real-life data. We also promote well-being by helping to prevent collisions and reducing injury when a collision is unavoidable.

Quality is an expression of our goal to offer reliable products and services. In all aspects of our operations the focus shall be on customer needs and expectations. We are committed to excellence in execution, efficiency and flexibility and strive to live according to the principles of "Create, Accept, Pass on - No problems".

#### **Environmental care**

Our environmental work is based on respect and concern for the individual, society and nature. Environmental work within our company is based on a holistic approach, lifecycle management



# **ECONOMIC HIGHLIGHTS 2015**

Volvo Cars has made significant progress since being acquired by Zhejiang Geely Holding Group Ltd. in 2010. In 2015, we achieved record sales and an improved profit margin, and began to see the fruits of our focus on a truly premium experience.

#### **Record sales**

Sales hit a record high in 2015 with 503,127 cars sold, largely due to strong growth in Europe and an impressive turnaround in our US operations. Our operating profit trebled to MSEK 6,620 compared to 2014 and the fact that Volvo Cars has been profitable every year since 2010, demonstrates our ability to reform and grow at the same time. Our operating profit margin was 4% for the entire year, and 5.6% in the second half of 2015 following the launch of the new XC90.

#### Focus on premium efficient vehicles

In 2015, we began to see the fruits of our investments in our in-house developed Scalable Product Architecture (SPA) technology, which helps us to improve productivity and profitability, in the form of the introduction of the all new XC90 and the S90 sedan. The XC90 has won over 110 awards and received 88,000 orders in 2015, which exceeded expectations.

Our new models also capitalise on recent investments in our Drive-E engine, which optimises vehicle power and fuel efficiency for customers. We will renew our entire product portfolio in the same manner in the coming years to completely rejuvenate our brand identity in the premium segment.

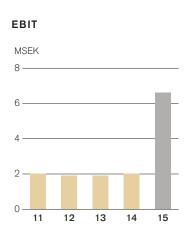
#### **Expanding industrial presence**

In 2015, Volvo Cars incorporated its Chinese industrial entities in order to reflect the management responsibility and simplify the legal structure. With its industrial footprint and presence in China, Volvo Cars has started exporting cars from China to the US, capturing global growth and sourcing potential. Volvo Cars also inaugurated new testing facilities in Shanghai. It strengthens Volvo Cars' local R&D capabilities and contributes to the automotive industry in China through developing local talents. This move establishes Volvo Cars as the only international premium car maker that has complete core vehicle R&D capabilities in China.

In 2015, we announced our plans to establish a US factory in South Carolina. Looking forward, this will give us an industrial presence in all three of our key global regions – Asia, Europe and the US. This will allow increased flexibility to meet market fluctuations.

### 

For the full year 2015, Volvo Car Group generated net revenue of MSEK 164,043 (137,590), an increase of 19.2% compared to 2014.



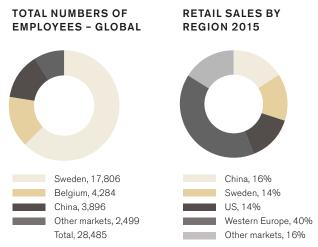
Operating income (EBIT) increased to MSEK 6,620 (2,128), resulting in an operating margin of 4.0 (1.5)%.

### MSEK 600,000 500,000 400,000 200,000

**VEHICLE SALES** 

In 2015, Volvo Cars reported a vehicle sales record of 503,127 (465,866) units, an increase of 8.0%.





#### **KEY FIGURES**

MSEK	2015	2014
Net revenue	164,043	137,590
Research and development expenses	-8,803	-7,193
Operating income, EBIT	6,620	2,128
Net income	4,476	508
EBITDA	16,019	9,491
Cash flow from operating and investing activities	7,234	-4,766
EBIT margin, %	4.0	1.5
EBITDA margin, %	9.8	6.9
Equity ratio, %	26.2	27.8
Net debt (Net cash if negative)	-7,721	856

# **ENVIRONMENTAL HIGHLIGHTS 2015**

We have a long history of working with environmental matters. We are currently revitalising our product portfolio towards more resource efficient vehicles, and further improving the environmental performance of our own operations.

#### Our approach to environmental matters

The manufacture and use of cars can have significant environmental impacts. Our Environmental Strategy takes a holistic approach that aims to minimise the lifecycle impacts of our products – from development, manufacture, use and eventual recycling. However, most of our focus is on the actual use of our cars, as this is where our greatest environmental impacts arise.

#### **Environmental aspects**

#### **OPERATIONS**

- Use of raw materials and natural resources
- Energy use
- Emissions to air
- · Emissions to water
- · Emergence of residues and waste
- Transport
- Environmental impacts from suppliers/products at Volvo Cars facilities
- Environmental impacts at supplier facilities

#### PRODUCT USE

- Energy efficiency
- Emissions
- · Alternative fuels
- Interior environment
- · Materials & recycling

#### **Environmental management**

Environmental considerations are a fundamental part of our business strategy and are fully integrated into our operations. Our Environmental Strategy, and related environmental targets, are updated annually according to current business development and global challenges.

The Senior Vice President Purchasing & Manufacturing is the representative for environmental matters on the Volvo Cars Executive Management Team (EMT). Product-related matters are managed by a Product Board and Attribute Managers in Research & Development. Day-to-day operational environmental matters are governed by an Environmental Committee, which reports to the Sustainability Board.

#### **Environmental awareness**

We incorporate environmental matters into relevant employee training and awareness initiatives. For example, environment is a topic in our team leader competence development programme within manufacturing.

Increased awareness and concern among consumers on climate-related matters, as well as fluctuating fuel prices, has led to greater consumer interest in more fuel-efficient vehicles. We actively communicate the environmental performance of our vehicles, and our Torslanda plant in Sweden has a public exhibition on the environmental and safety aspects of our business.

Read our Core Value Statement – Environmental Care: www.volvocars.com/intl/about/our-company/core-values



### **PRODUCTS**

#### Our approach to product performance

Globally, around 15% of manmade carbon emissions are produced by cars and other vehicles. With many new cars to be launched in the coming years, we are completely revitalising our product portfolio with more resource efficient vehicles that reduce emissions and use renewable fuels.

We take a Life Cycle Assessment approach, which helps us assess the holistic environmental impacts of our vehicles and develop more resource efficient materials, components and vehicles. We also work with other industry partners and academia on product performance, for example through the Swedish Lifecycle Center network, which was initiated in 2015.

#### Key product innovations in 2015

- Scalable Product Architecture (SPA) technology a platform
  developed in-house to improve driveability and provide a range
  of design options. 2015 saw the launch of the new XC90 and
  the reveal of the S90 and V90 models, which are all based on
  the SPA platform as will be a number of further models in the
  next three years.
- Compact Modular Architecture (CMA) technology an unveiling event was held in 2015 showing our smaller but equally advanced version the SPA technology. This means we are able to extend our range of compact cars into new segments. The first car on our CMA is expected to be launched in 2017.
- Drive-E Powertrain engine combines the low fuel consumption and emissions of a four-cylinder engine with the performance of a six or eight-cylinder engine.
- Improvement of our cabin air filter to further improve the interior environment for customers in areas of high air pollution.

#### Emissions and renewable fuels

Limiting  $CO_2$  emissions is a challenge for the entire automotive industry. We keep ahead of current and future emission standards in all our markets through bi-annual follow-up of legal compliance and by developing efficient technological solutions. EU  $CO_2$  standards, which are among the most stringent in the world, are used as a benchmark for our overall global vehicle  $CO_2$  standards.

Our EU fleet average  $CO_2$  emissions in 2015 were 123g/km, compared with the EU emissions target of 130g/km. Improvements are tracked on an annual basis and we are on course to meet the 2020 EU target of 95g/km. We also offer vehicles that can be driven on natural gas/biogas, and have one of the broadest ranges of plug-in hybrid models.

For example, we launched the T8 Twin Engine hybrid variant of the new XC90 in 2015. The car is designed to emit 62% less than the 2015 EU fleet emission target, while the electric motor combined with the supercharged and turbocharged engine delivers 400 hp. The new XC90 is a full hybrid vehicle that can be used with either the electric motor or the internal combustion engine, or both, depending on driving conditions.

#### Electrification

In October 2015, we launched our comprehensive Electrification Strategy. The focus point of this strategy is the introduction of plug-in hybrid variants across the entire range of SPA and CMA-based cars. A fully electric car will be launched by 2019. The first cars to be launched as part of this strategy are the top-of-the-range XC90 and S90 T8 Twin Engine variants. The SPA and CMA technology platforms are prepared for electrification at all levels, without intruding on interior space or load space. With SPA, we overcome the industry challenge of combining the bulk of a battery pack with a luxurious and spacious interior.



#### Lightweight design

We reduce the weight of our vehicles through design and the use of lightweight materials in order to promote resource and fuel efficiency. For example, our latest XC90 model is 100 kg (about 5%) lighter than the previous model due to the use of less metals and more lightweight materials.

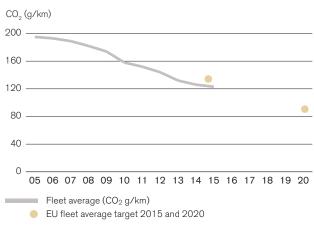
#### Interior environment

We work to improve the interior environment of our vehicles in terms of air quality and contact allergies, with the overall objective of ensuring that the inside environment is cleaner than the air outside. As there are no societal standards for in-car air, we have developed our own standards that we use when developing new models – Interior Air Quality System (IAQS) and Clean Zone Interior Package (CZIP). We also prohibit the use of substances in our cars that are potentially harmful to human health and the environment.

#### Recycling

Our long-term objective is to increase the quantity of materials in our products that are renewable. For example, we are working to increase the amount of recycled non-metallic materials in our vehicles and reduce the quantity of virgin materials. In terms of

### CO<sub>2</sub> EMISSIONS - EU FLEET AVERAGE



recyclable materials, we calculate the proportion of materials that are recyclable at the end of a car's useful lifespan. Approximately 95% of the materials in our cars can be recovered and 85% can be recycled.

#### CASE STORY: REMANUFACTURING

### OVER 1,000 TONNES OF METAL SAVED IN 2015

The Volvo Exchange System remanufactures replaced parts to their original specifications to realise both environmental and financial savings.

In total, around 15% of Volvo Cars' spare part sales consist of parts from the Volvo Cars Exchange System. A remanufactured part requires up to 85% less raw materials and 80% less energy compared with a new product. In 2015, the system saved approximately 780 tonnes of steel and 300 tonnes of aluminium.

Under the system, participating dealers have an obligation to return replaced parts and Volvo Cars' external suppliers remanufacture qualifying parts to their original

specifications. The system covers everything from gearboxes to injectors and electronic components, and remanufactured parts

have the same quality as regular spare parts. During 2015, we expanded the portfolio of Exchange Product Areas from 43 to 46.



### **OPERATIONS**

#### Our approach to operational performance

The environmental performance of our operations is managed by our ISO 14001 environmental management system, which involves third party certification, regular environmental risk analyses and continuous improvement. We began certifying our units to ISO 14001 in 1996 and certified our new Chinese operations in 2015 and the beginning of 2016. Car manufacturing requires large amounts of energy, and we work to continuously reduce our energy use with the objective to ultimately become climate neutral.

#### Progress in 2015

- Various energy efficiency projects at our plants saved about 42 GWh of energy (equivalent to about 25,000 barrels of oil).
- Total carbon emissions in Europe reduced by almost 4% or 1,900 tonnes of CO<sub>2</sub> equivalent.
- Total plant water consumption decreased by around 6%.

#### **Energy consumption**

We directly consume energy in the form of natural gas, LPG (Liquefied Petroleum Gas), diesel and oil, and indirectly in the form of purchased electricity and district heating. We have dedicated employees that work solely with energy efficiency and climate matters throughout the company. Each plant

has annual energy reduction targets, which are followed up on a monthly basis.

#### Towards climate neutral operations

We aim to be climate neutral (in terms of  $CO_2$ ) in all own manufacturing operations by 2025 by promoting energy efficiency and by sourcing climate neutral energy supplies. During 2015, our total greenhouse gas emissions continued to decrease in Europe and our China data has been added for the first time (see graph on page15).

#### Managing other emissions

We work to minimise emissions of Volatile Organic Compounds VOCs,  $CO_2$  and other greenhouse gases. Our paint shops in Torslanda and Ghent are among the most advanced in the world, with emissions over four times less than EU standards require.

#### Water management

We focus our freshwater management efforts on sites we have identified as having water scarcity issues. For example, as part of a cooperation with the Swedish Environmental Research Institute to reduce the water footprint of the Zhangjiakou Engine Plant in China in 2015, a vacuum evaporation wastewater treatment system was installed that annually saves up to 3,000 m³ of water.

CASE STORY: GHENT PLANT, BELGIUM

### €700,000 ENERGY EFFICIENCY SAVINGS IN 2015

The Volvo Car Ghent plant in Belgium reduced its use of gas and electricity by 5.8% in 2015 through several energy efficiency projects.

Annual energy savings of 15,237 MWh were realised in total, which equates to annual cost savings of over €700,000 and a carbon emission saving of 7.3% or 2,090 tonnes of CO₂ equivalent per year. Here are examples of three energy saving initiatives:

#### REDUCED SPRAY BOOTH DOWNDRAFT

Downdraft in plant spray booths has been reduced by 25% to 0.15 m/s on average, by optimising fan and system energy efficiency, without affecting spray performance.

Annual energy savings: 766 MWh (644 MWh heat & 122 MWh electricity)

#### COOLING CIRCUIT SWITCH OFF

The plant's ice water cooling circuit was switched from continuous year-round operation to being manually switched off during the winter months when cooling is not required.

Annual energy savings: 385 MWh

#### VENTILATION OPTIMISATION

The ventilation system serving the Electro-Coat area was optimised to improve both indoor air quality and energy efficiency.

Annual energy savings: 370 MWh





We cooperate with municipalities and local wastewater treatment organisations to ensure that our wastewater meets the required quality levels. We also re-use and recycle wastewater where possible. In 2015, the Volvo Cars Chengdu plant has executed a water efficiency program that has reduced wastewater generation by approximately 1 m³ per vehicle.

#### Waste management

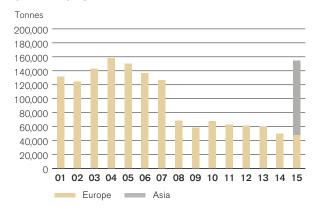
We work to reduce waste by applying our waste management hierarchy in day-to-day decision-making. Our largest waste stream is metal from car production in Sweden, which is entirely recycled. Several waste management efficiency projects were launched in 2015 to increase resource efficiency awareness

within the company and decrease the amount of waste. For example, initiatives were launched to reduce the amount of used metals within the body components plant in Sweden.

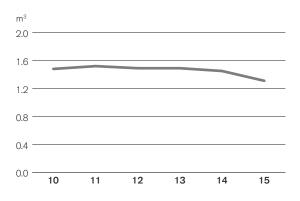
#### Sustainable logistics solutions

We have restructured our logistics operations to enhance overall efficiency in 2015 by improving our control and planning capabilities. These new capabilities enabled us to calculate our global  $CO_2$  footprint from logistics for the first time, which amounted to 447,267 tonnes of  $CO_2$  equivalent. A priority in 2016 will be to analyse the data in more detail and identify how we can reduce  $CO_2$  emissions from logistics in the future.

### TOTAL CO2 EMISSIONS - MANUFACTURING OPERATIONS



#### WATER CONSUMPTION PER VEHICLE - EUROPE



# **PEOPLE HIGHLIGHTS 2015**

People working at Volvo Cars are fundamental to realising our vision of being the world's most progressive and desired premium car brand. Our comprehensive People Strategy is designed to support the development of people at Volvo Cars and drive our performance.

#### Our approach

Our People Strategy ensures that we are all provided with development opportunities, that health and safety is promoted, and that diversity is encouraged. This approach supports our objective of being the employer of choice for people who want to make a difference.

#### Volvo Cars culture

We are people that create cars for people. Our success lies in being truly passionate about customers and cars, whilst moving quickly and aiming higher than before. We dare to challenge and accept challenges, yet never compromise the respect we have for one another. This is the essence of Our Volvo Cars Culture.

#### Organisational health

Organisational health refers to our ability to align, execute and renew ourselves faster than our competitors in order to reach our objectives and create sustainable results. To measure this, an annual Organisational Health Index (OHI) survey is sent out to all employees. In 2015, our OHI improved in almost all areas and highlighted that our employees have a clear sense of where the company is heading and that the vision for the future is seen as meaningful to employees. Efforts to promote organisational health in 2015 included the initiation of a new global leadership programme and the launch of an app for mobile devices that is designed to keep those with limited internet access informed of company news and events.

#### An employer of choice

We strive to be an employer of choice as we realise that our ability to attract and retain top talent is the key to achieving our objectives.

In 2015, we participated in various employer-branding events, and launched the Volvo Cars career website and new social media channels, to improve interaction with people that are interested in pursuing a career at Volvo Cars. In 2015, we were recognised as the 46th most attractive employer in the world among engineering MSc students (Universum), and the 3rd most attractive employer among Swedish professionals (Randstad Awards).

#### **Employee development**

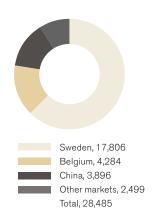
We provide attractive and stimulating work environments, and employee development opportunities, to become a healthy and high performing organisation that enables our employees to build for the future. During 2015, we held approximately 500 different courses for our employees. We also strive to maximise career opportunities and offer international opportunities through exchange programmes within the company.

#### Employee engagement

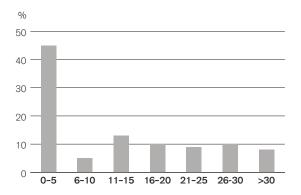
Our approach to employee engagement involves encouraging good relationships with our employees, and supporting them to be motivated and work to the best of their abilities. We do this through the leadership approach of our managers as well as initiatives to promote employee engagement. Some of those initiatives have been mentioned above. Additionally, there has been a continued roll-out of Designed Around You @ Work, which is our activity-based office and manufacturing layout programme.

Another example is Volvo Cars Customer Service's Employee Engagement Concept, which was awarded the Quality Innovation of the Year by the Swedish Institute of Quality in 2015.

### TOTAL NUMBERS OF EMPLOYEES - GLOBAL



#### EMPLOYEE - TENURE: NUMBER OF YEARS WITH VOLVO CARS



In 2016, all Volvo Cars employees will be invited to participate in a re-instated employee survey that will take the pulse of every team. The Global People Survey will provide answers to how employees perceive their work environment, the way in

which the management and teams function, and to what extent employees feel engaged. Our results will be compared with other global companies to obtain the best possible guidance in relation to improvements.



### **HEALTH & SAFETY**

#### Our approach to health & safety leadership

Health and safety transcends our entire organisation and all our operations, employees and contractors are governed by universal standards, regardless of their geographic location. Corporate and divisional health and safety specialists work strategically with health and safety, which is also integrated into our Business Management Systems through the Volvo Cars Work Environment Directive and Work Environment Committee.

#### Health & safety initiatives in 2015

- Ongoing training and behavioural change initiatives to reduce occupational risks.
- Launch of our online accident/incident reporting tool.
- Initiation of the 'Safety Culture' leadership programme in Europe to promote incident reporting and preventive measures.
- A pilot project was carried out that appointed and trained employee health coaches to work with preventive health matters among white-collar employees in the Quality & Customer Satisfaction function.

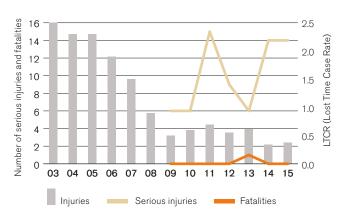
#### Sick leave per available hours

%	2009	2010	2011	2012	2013	2014	2015
Sweden	3.8%	3.7%	3.6%	3.5%	3.6%	4.0%	4.2%
Swe + Bel	4.7%	4.5%	4.4%	4.4%	4.5%	4.5%	4.7%

#### Work-life balance

We operate in a challenging industry for employees, and recognise the importance of helping workers to avoid stress-related illnesses by achieving a good work-life balance. In 2015, we primarily focused on providing preventive health measures to people working at Volvo in order to support a good work-life balance.

#### **FATALITIES AND INJURIES**



#### CASE STORY: CHENGDU PLANT, CHINA

### EUROPEAN HEALTH & SAFETY STANDARDS IN CHINA

Volvo Cars Chengdu (VCCD) was the company's first fully-owned manufacturing plant outside Europe, and Volvo Cars has established a modern plant that is comparable with European standards on quality, installed technology, environmental performance, working environment and safety.

In terms of health and safety, VCCD has mainstreamed safety thinking with a particular focus on accident prevention to ensure that no employee is seriously injured in the workplace. In 2015, VCCD's approach to safety was verified to be fully in accordance with the Volvo Car Manufacturing System Safety policy. Specific health and safety measures and initiatives include:

• Comprehensive safety training provided to employees at all levels.

- Celebrations for outstanding safety performance.
- Safety month held each June.
- All tools and equipment meet European standards.
- Heavy lifting tools to support employees are provided.
- All plant vehicle drivers receive Volvo Cars' traffic training.
- The plant is specially designed to minimise the need for forklift trucks.
- A medical centre is on-site that cooperates with a local hospital when necessary.
- Employees are offered medical insurance as part of their employment.
- Employee overtime rules are similar to those in Europe and the number of vacation days exceeds local requirements.



### **DIVERSITY & INCLUSION**

#### Our approach to diversity & inclusion

We strive to benefit from the entire labour pool available to us, and work to ensure that all our employees can fully participate in our company to the best of their ability. Our approach to diversity is reflected in our internal everyday work and relations with our employees, customers and business partners. We implement Diversity and Inclusion Plans, and every function has a Diversity and Inclusion champion.

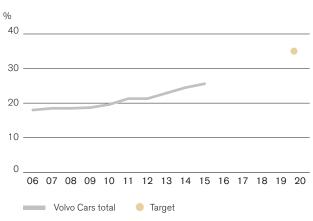
Diversity is about different backgrounds, experiences and personalities. It's a culture where everyone is respected and able to contribute. It's about being inclusive. Many innovations and features on our cars are the result of the work in diverse teams.

Examples of our progress on diversity include the fact that about 25% of our top 300 managers are non-Swedish nationals, and 26% of our leading positions are held by women.

#### Diversity initiatives in 2015

- Integration of diversity and inclusion perspectives into global Human Resources processes.
- We joined the PEPP mentoring programme, which is a Gothenburg-based collaboration between different engineering companies in order to promote the employment of female engineers.

#### PROPORTION OF WOMEN IN LEADING POSITIONS1



- <sup>1</sup> Leading position covers managers with direct reporting responsibilities, programme managers, project leaders and specialist in leading positions.
- Co-arranged an engineering network event for 200 female professional engineers in Gothenburg.
- Rebranded our career site on our global website to better represent our diversity objectives.

CASE STORY: TORSLANDA PLANT, SWEDEN

### WOMEN REPRESENT 37% OF NEW SHIFT

Volvo Car Torslanda (VCT) has promoted diversity in 2015 by actively creating employment, training and career opportunities for women.

2015 initiatives to promote diversity at VCT included the prioritisation of a gender balanced recruitment process for a new production shift of 1,500 workers. The initiative resulted in female employees representing 37% of the shift. The recruitment also included an unusually large number of younger workers, which has lowered the overall average age at VCT from 48 to 41 years. VCT also opted to take on predominantly female trainees to fill the need for forklift truck drivers on site, which led to 46 of the 48 trainees being women.

Anu Lipponen, Diversity Champion at VCT explains: "At Volvo Car Torslanda, we

believe that diversity leads to the development of better products.

We also believe that promoting an inclusive environment creates a more attractive workplace with greater work satisfaction and higher levels of commitment."

Ongoing initiatives aimed at promoting greater opportunities for women at VCT include:

- A female mentor programme led by experienced managers.
- A programme within the Purchasing and Manufacturing unit that nominates female leaders.
- All training programmes and initiatives aim to have an equal gender split.
- The proportion of female employees in various levels throughout the company is followed up on a monthly basis by VCT management.



### LABOUR RIGHTS

#### Our approach to labour rights

Our global expansion with the establishment of new manufacturing plants outside Europe means that we are exporting our way of working with labour rights as we ensure that all our plants apply our common standards.

#### Labour rights initiatives in 2015

We initiated our new Global Labour Affairs Directive, which aims to surpass legal requirements where possible and further improve dialogue with employee representatives. In addition, we established a trade union employee labour dispute mechanism in our China operations that works to protect employee interests, their fair treatment and improvements in their workplace. Examples of discrimination and harassment were included in our mandatory code of conduct e-learning, and new managers in Sweden were trained in the Leadership@Volvo programme, which covers discrimination, among other things.

#### Freedom of association and collective bargaining

Our People Policy and Code of Conduct clearly state that all employees have the right to form or join labour organisations of their choosing and to bargain collectively. Approximately 80% of our workforce is covered by collective labour agreements. For many years, union representatives have been on the Volvo Cars Board of Directors, showing our commitment to our employees and their labour rights.

#### Harassment and discrimination

We have a zero tolerance towards employee harassment and discrimination as defined in our People Policy. All our plants have designated employees, either within HR or other appointed positions, that are trained to provide harassment and discrimination support.

In 2015, three cases of suspected harassment and one case of discrimination were reported globally, including an issue between two agency employees. The internal cases were investigated and proper corrective and supportive actions were taken in all instances. Notably, there were no reported cases of discrimination when recruiting 1,500 employees for a new shift at our Torslanda plant in 2015.



### **ETHICS**

#### Our approach to ethics

Volvo Cars is committed to responsible business conduct and we aim to fight corruption, bribery and unethical business practices wherever we operate. We do this through responsible and ethical leadership, which involves our company and managers being role models for business ethics and professional integrity. We also have a Compliance & Ethics programme that manages initiatives and controls to prevent and detect corruption and mitigate other legal and ethical risks. The Compliance & Ethics Office supports people with guidance on how to act to ensure compliance with our code of conduct and applicable laws when doing business. The close collaboration between the Compliance & Ethics Office and the business is fundamental to achieving a responsible business conduct.

#### Ethics initiatives in 2015

- Launched the "Tell Us" channel to allow employees and external parties to anonymously report violations of our Code of Conduct via a system hosted by a third party.
- Corruption risk assessments conducted in all 12 business functions/regions.
- 2,500 employees received face-to-face Code of Conduct training during 2015, which means that 8,000 employees have now received this training since the Code of Conduct was launched in 2014.
- Over 11,000 employees and consultants completed our e-learning on the Code of Conduct, Anti Corruption, Anti-Bribery and Conflict of Interest.

- All members of the Board of Directors and all members of the Executive Management Team were trained on our Anti Corruption policy.
- A global Compliance & Ethics champions network was initiated comprising of 32 champions in 17 countries.
- Co-arranged and hosted the Ethics & Compliance Nordic Summit in Stockholm a conference for compliance and ethics officers and professionals.

#### **Our Code of Conduct**

The Volvo Cars Code of Conduct, which is based on the relevant international conventions and standards, combines our business objectives with ethics and governs and guides the actions of all our employees and our business partners.

#### **Ethics training**

Training and internal communications are important parts of our work with ethics, which includes targeted training for specific groups at all levels of the company. A Code of Conduct training package for our production line employees was developed in 2015 and will be rolled out in 2016.

#### Reported Code of Conduct violations in 2015

46 suspected violations, mainly against our Anti-corruption Policy, were reported to our Compliance & Ethics Office. Following investigations, 43% of the reports were substantiated, and disciplinary actions, including employee dismissals and termination of supplier contracts, were taken in 15 cases.

#### CASE STORY: DAQING PLANT, CHINA

### ETHICAL LEADERSHIP - A COMPETITIVE ADVANTAGE

An interview with Benoit Demeunynck, Daqing Plant Manager in China, in 2015

### WHY IS ETHICAL LEADERSHIP IMPORTANT TO VOLVO CARS IN CHINA?

I have been involved in the start up of two new plants in China in recent years, which has involved recruiting several hundred new employees to the company. Many of our new Chinese employees were attracted to Volvo Cars because of our core values and high ethical standards. This ethical leadership differentiates us from our competitors, and I believe we must continue to nurture our company's ethical culture in China.

#### HOW HAVE YOU WORKED TO PROMOTE AN ETHICAL CULTURE AT THE DAQING PLANT?

At the Daqing plant, Code of Conduct training has been crucial to instil an ethical culture. Weekly employee meetings, 1-to-1 employee sessions and leadership meetings promote open dialogue on ethics and what it means to individual employees. We have also drawn on our ethical values to overcome cultural issues we encountered, for example with different leadership styles, by helping to find appropriate solutions.

### WHAT WERE YOUR KEY ACHIEVEMENTS IN 2015?

I am very proud of the Volvo Car Daqing team. We have created an open and inclusive mindset where everybody is in tune with a common ethical culture.



# **SOCIETAL HIGHLIGHTS 2015**

We aspire to be a positive force in society by focussing on the societal issues our company has greatest influence on.

#### Our approach to societal issues

We have an important role to play in society by using our expertise and influence in the automobile industry for societal benefit. For us, this involves:

- Promoting traffic safety in society
- Working with our supply chain partners on sustainability issues
- Engaging with key societal stakeholders and initiatives

#### Traffic safety

Since producing our first car in 1927, we have been an industry leader in terms of vehicle safety and no other brand is as strongly associated with safety as Volvo. As a safety pioneer over the years, many world first safety innovations have been offered as standard in our cars. Promoting safety for all road users and saving lives is one of our most important contributions to society. In 2015, we continued to enhance traffic safety through various safety solutions and initiatives based on real-life data.

#### Supply chain management

Our extensive global supply chain delivers the majority of the components we use in our vehicles as well as the many services needed to produce, distribute and market our vehicles. Our work together with suppliers on sustainability issues benefits society by ensuring they meet our social and environmental requirements.

#### Societal engagement

Our engagement with society is crucial to understanding the needs and expectations various stakeholders have on our company. We also seek to have a positive impact on society through our global citizenship projects.





CASE STORY: AUTONOMOUS DRIVING

### **OUR PROGRESS ON AUTONOMOUS DRIVING**

Vehicles with autonomous driving capabilities will be part of the solution to many societal challenges in the near future.

### AUTONOMOUS DRIVING & SOCIETAL BENEFIT

Autonomous driving has the potential to reduce emissions and fuel consumption and can promote safety as statistics show that distracted drivers cause around 90% of all accidents.

### SEMI AUTONOMOUS TECHNOLOGY IN 2015

In 2015, we launched the new S90 model, with semi-autonomous features, such as Pilot Assist. Other driver support solutions in our latest models that are paving the way for fully autonomous driving include: automatic bra-

king, lane keeping aid, adaptive cruise control, 360° view technology and park assist pilot.

### AUTONOMOUS DRIVING INITIATIVES IN 2015

- Drive Me testing and development of autonomous vehicles in Gothenburg together with project partners to assess how more sustainable transportation systems can be developed in the future. The testing is also a preparation for the Drive-Me trial which will start in 2017 with 100 customers on public roads in Gothenburg.
- Concept 26 intended to demonstrate how the cabin of an autonomous Volvo will allow the average commute of 26 minutes per day to be spent in a more meaningful way and how autonomous technology will create a new type of luxury driving experience.
- Autonomous Driving safety debate we carried out a successful debate on the topic in the US where we called for the US Government to establish federal guidelines for Autonomous Driving.

For more information see: www.volvocars.com/autopilot.



### TRAFFIC SAFETY

#### Our approach to traffic safety

Our long-term vision is to maintain our industry-leading position in vehicle safety by developing innovative, smart and integrated traffic safety solutions for both passengers and other road users. We aim to prevent collisions and reduce injury when a collision is unavoidable.

#### Safety - integrated into product development

We incorporate product safety into every phase of product development and new Volvo models are equipped with the latest safety technology. All modern Volvo cars meet or exceed statutory requirements for car manufacturers, and there were no incidents of non-compliance with safety regulations or voluntary codes in 2015.

#### Key safety solutions launched in 2015

 Ultra High Strength Steel – there is approximately five times more boron steel in the new XC90 than first-generation XC90.
 Boron steel is the strongest type of steel used in the car body industry and makes up about 40% of the total body weight of the XC90.

- Automatic braking technology uses camera and radar technology to automatically brake when the car is faced with an oncoming vehicle or at busy intersections.
- Large animal detection system collision avoidance system that detect large animals, such as moose and horses.
- Semi-autonomous driving can be used in low-speed traffic situations and when driving on highways with proper road markings.
- Run-off road mitigation to prevent unintentional road departure.
- Spine injury prevention an energy-absorbing functionality between the seat and seat frame is capable of reducing the vertical occupant forces by up to one third during a hard landing in terrain.

### Key collaboration on safety between Volvo Cars and partners in 2015

- Driver state estimation testing of driver-monitoring sensors that detect the driver's state and can adjust the car accordingly.
- SAFER Vehicle and Traffic Safety Centre sharing car safety knowledge with Chalmers University of Technology, Trafikverket (Swedish Transport Administration) and other partners.
- Sharing car safety knowledge in Europe with Euro NCAP, in the US with IIHS and NHTSA and in China with CATARC (China Automotive Technology and Research Centre).

#### **HOLISTIC APPROACH TO SAFETY**



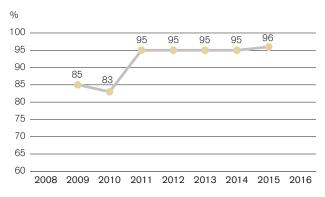
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#### Key awards & recognitions in 2015

- Top Safety Pick+rating award awarded to the new XC90, S60, V60, XC60 and S80 by the American Insurance Institute for Highway Safety.
- Best-in-class in the 2015 Euro NCAP ratings XC90 scored 100% in the Safety Assist category and an outstanding 97% in adult occupant protection.
- The Euro NCAP Autonomous Emergency Braking (AEB)
   Car-to-Car rear-end tests Volvo Cars' City Safety technology becomes the industry's first to score full points (AEB City & AEB Interurban).

#### INDEPENDENT TESTS RESULTS



Our safety vision is that no one should be killed or seriously injured in a new Volvo car by 2020.

#### CASE STORY: VEHICLE SAFETY

### VIRTUAL MODELING & ADVANCED SAFETY SOLUTIONS

Virtual tools such as Human Body Modelling (HBM) have been an important part of Volvo Cars' development of advanced vehicle safety solutions since the mid 1990s. Pioneering work with Active HBM continued in 2015.

#### THE IMPORTANCE OF VIRTUAL TOOLS

"Virtual tools speed up the development process and can be used in early phases of product development, before physical cars are available," explains Dr. Lotta Jakobsson, Senior Technical Leader, Injury Prevention, Volvo Cars Safety Centre. "Human body models can also enable the analysis of more detailed injury mechanisms, greater human replication and more complex events than conventional crash test dummies – which is necessary to achieve our Safety Vision 2020," continues Dr. Jakobsson.

#### INDUSTRY-LEADING SAFETY RESEARCH

Volvo Cars conducts pioneering and industry-leading safety research in order to enhance its knowledge and solutions. One example of pioneering research is the Active-HBM project, which is a cooperation between Volvo Cars, Chalmers University of Technology and Autoliv that has been running since 2007. Active-HBM is an industry-leading tool that is able to accurately simulate the effects of various collision mitigation systems on vehicle occupants prior to an impact.

In 2015, Active-HBM has been used to successfully integrate low-g breaking into high-g collisions, which is an industry-first for Volvo Cars. "The work is ongoing and we are incorporating more complex collision events to develop even more advanced vehicle safety solutions in the future," says Dr. Jakobsson.



### SUPPLY CHAIN MANAGEMENT

#### Our approach to supply chain management

We work together with our supply chain to ensure business continuity and effectiveness, and improve social and environmental performance. We expect our suppliers to abide by the same or similar principles as those set out in our Code of Conduct, and we verify their compliance through self-assessments and audits. We reward supplier excellence through the Volvo Quality Excellence Award and Award of Excellence, which aim to promote continuous improvement in our supply chain.

#### Key supply chain management initiatives in 2015

- Our Supplier Evaluation Model was relaunched along with employee training.
- New Supplier Sustainability Self-Assessment Questionnaire launched.
- Our purchasing department focused on auditing logistics suppliers and supporting them to improve their performance.

#### Managing our supply chain

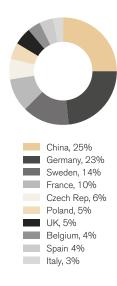
We use a model to rate supplier countries from a sustainability risk perspective that is used to prioritise activities such as supplier training and audits. The model is based on: democracy, civil and political rights, living standards and corruption, and complements our supplier environmental and social risk models. Supplier requirements are communicated through our Supplier Portal and are distributed as part of the sourcing process.

#### Our supply chain management tools

- Manufacturing Site Assessments evaluate if suppliers are performing according to customer expectations and requirements. MSAs are conducted for new suppliers and on a reoccurring basis for existing suppliers.
- Supplier Evaluation Model supports the selection of new suppliers by evaluating potential suppliers on working conditions, business ethics and environmental performance.
- Supplier Sustainability Self-Assessment Questionnaire includes social, environmental and sub-supplier responsibility, and business ethics, and has been developed together with other car manufactures.
- Volvo Cars' Working Conditions & Environment Audit Checklist
   used to audit suppliers.



#### **TOP TEN SUPPLIER COUNTRIES**



### SOCIETAL ENGAGEMENT

#### Our approach to societal engagement

We acknowledge that we cannot find solutions in isolation. It is essential that we build and nurture partnerships with societal stakeholders in order to stay relevant and to act responsibly. Our definition of society is made up of the following main stakeholder groups:

- Public authorities
- Non-Governmental Organisations (NGOs) and international organisations
- Academia
- Media
- · Local communities
- Industry networks

#### Good citizenship projects

We support projects, initiatives and events in areas that are related to our operations and vision, and that strengthen the Volvo Cars brand. Projects are managed directly by our businesses in different markets and typically concern education and research, traffic safety and children's welfare (often in relation to safety and education issues).

At a Group level, good citizenship projects we manage include:

- Volvo Experience Programme (VEP) provides young unemployed people with work experience for a period of 1–6 months. The programme has been active since 2013 and had 60 participants in 2015.
- PEPP mentor programme a mentor programme directed towards female university students and female engineers in other companies, with the objective of increasing the number of female engineers. The programme began in 2015 and we have allocated 10 mentors.
- Mitt Liv mentor programme is a social enterprise that supports recent immigrants to Sweden by helping them to integrate into the local job market. The programme has been active since 2011 and we allocated 10 mentors in 2015.
- Föreningen Öppet Hus is a non-profit organisation that is politically and religiously independent. Its aim is to bridge the gap between qualified people of foreign background and the Swedish labour market, primarily for young adults between 17–30 years, through mentorships.

CASE STORY: CHILD CAR SAFETY INITIATIVE, CHINA

### IMPROVED CHILD CAR SAFETY BEHAVIOUR

In 2015, Volvo Cars launched an initiative in partnership with the Chinese Office of the UN Decade of Action for Road Safety (CATARC) to raise awareness of child car safety and promote the use of child car seats in China.

The Volvo-funded initiative is directed at families with babies and young children aged 0-6 years old, and engages with parents from pregnancy. In 2015, this resulted in improved child car safety knowledge and behaviour among 3,000 Chinese families in total. Volvo Cars plans to continue the successful initiative in 2016.

#### ACTIVITIES

• Nineteen 1.5-hour awareness sessions were held at 13 hospitals in Beijing,

Chengdu, Guangzhou and Shanghai, which involved around 2,000 families in total. Participants learned about how to travel safely in cars with children and when pregnant. They also received a useful gift bag that included a child neck cushion.

- Six Volvo car dealerships have actively shared information about child car safety, which raised awareness among more than 1,000 families.
- Approximately 60 child car seats have been donated and 240 seats loaned out to Volvo owners and members of the public for 6 months by CATARC.





# **OMTANKE**

As a human-centric car company, we are a brand for people who care about other people and the world in which we live. This is at the core of our business and of our approach to sustainability.

Our commitment is about re-thinking sustainability, and goes beyond our operations and our cars, and into society. It makes us think again every time we take decisions that affect the world and the lives of people.

There is a Swedish word that means "caring" and "consideration", but also importantly "to think again". This word is "omtanke" and summarises our way of protecting what's important to you.

Omtanke is the name of our new programme of sustainability commitments.



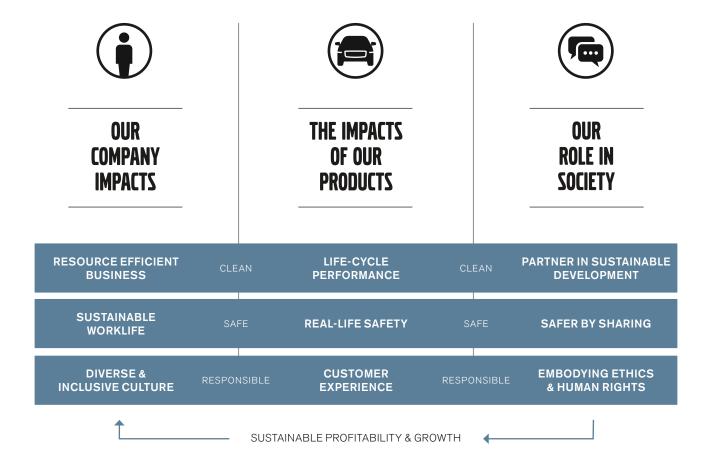
### PROTECTING WHAT'S IMPORTANT TO YOU

Building on protecting what's important to you, we have structured Omtanke on three impact areas: our impact as a company, the impact of our products and our role in society.

We work towards the traditionally defined sustainability areas of environment, society, people and economic growth. However, as a car company, we have also added the dimension of safety. Therefore, within each of these impact areas, we have the three themes of clean, safe and responsible.

This means there are nine topics that address in our commitment to sustainability. These topics are stable and have a long-term focus, whereas the commitments within each topic (see following pages) will change over time as they are fulfilled, modified or replaced.

Actively working on these topics contributes to protecting what's important to you, as well as the sustainable profitability and growth of the company.



The Sustainable Development Goals (SDGs) are an intergovernmental series of 17 goals from the United Nations to promote sustainable development. We believe that some of the issues Omtanke covers contribute toward specific SDGs. These specific goals are indicated on the pages in this section.







































### RESOURCE EFFICIENT BUSINESS

By using our resources efficiently we minimise the environmental impact of our operations. We not only focus on water, energy, waste and air emissions (CO<sub>2</sub> and other emissions) in our own operations, but also plan to increasingly put more demands on our business partners.

#### OUR COMMITMENT

#### CLIMATE NEUTRAL OPERATIONS BY 2025

We aim to be climate neutral (in terms of CO<sub>2</sub>) in all our own manufacturing operations by 2025. This is a global commitment that we will achieve through energy efficiency and by securing climate neutral energy supplies.



#### Ongoing climate neutral objectives and initiatives

Our global objective is to first and foremost focus on energy efficiency and the reduction in our overall energy use. We complement these measures by promoting the purchase of climate neutral electricity and heating. This involves the use of local opportunities for renewable energy sourced from wind, solar, biogas/biomass and geothermal systems, as well as utilising heat pumps and waste heat.

In Europe, we will reuse industrial waste heat at the Volvo Car Ghent plant in Belgium to annually save 14,000 tonnes of CO<sub>2</sub> equivalent. Another efficiency initiative will involve closing the second body wash at the Volvo Car Torslanda plant in Sweden that will save approximately 5 GWh per year. Work in China will focus on energy efficiency and on investigating opportunities for renewable energy.















### SUSTAINABLE WORK LIFE

As a human-centric company, our aim is to offer a safe, motivating and attractive workplace where people are able to grow and contribute to the company's development. Sustainable work life is about addressing the life balance and occupational health & safety for everyone working at Volvo Cars to ensure that we are motivated in our work and can retire with a healthy mind and body.

#### OUR COMMITMENT

#### NO FATALITIES OR SERIOUS INJURIES AT VOLVO CARS

We are committed to ensuring there are no work-related fatalities or serious injuries involving any of our employees or contractors. We will achieve this commitment by implementing proactive tools and initiatives, and by promoting a greater safety culture.



#### Safety tools & initiatives going forward

We have a number of initiatives that we will continue to apply globally. One major part of this is the implementation of the Volvo Cars Health & Safety Global Procedures in China and US Operations, and the introduction of proactive KPIs on risk observation and safe behaviour. Other examples include the promotion of a safety culture through Lean Leadership training, the global implementation of our online accident and incident reporting tool and our Designed Around You@Work activity-based office and

manufacturing layout programme, as well the investigation of occupational health & safety in the early phases of car development projects.

Health & safety is not only about the physical well-being of everyone working at Volvo Cars, but also the mental well-being. We will therefore be reinstating an employee survey to be able to measure and take action on each team's psycho-social health.









### DIVERSE & INCLUSIVE CULTURE

We have a unique and open culture and strive to be a truly global and diverse company by promoting inclusiveness and leading by example. Diversity and inclusion is about attracting and leveraging on people with different competencies, backgrounds, culture, gender, experience and personalities as a means to build an innovative, ethical and inclusive global culture and organisation. We believe this ultimately makes our products better and our business more successful. Our leaders are the role models in these efforts.

#### OUR COMMITMENT

# 35% INTERNATIONALLY DIVERSE LEADERS & 35% FEMALE LEADERS BY 2020

Volvo Cars is committed to ensuring that all leaders promote new perspectives in order to build a global, dynamic and respectful working environment. This will be achieved through strengthened action plans focusing on inclusiveness, gender balance and international experience as well as recruitment, leadership and employer branding. By 2020, targets are that 35% of our top 300 managers should be non-Swedish nationals and 35% of our leading positions should be held by women.



### Promoting inclusiveness, gender balance and international experience

We work actively in promoting inclusiveness in each and every team so that everyone working at Volvo Cars is respected for who they are. This will be measured through an employee survey where the results will be followed up with appropriate action.

Another dimension of diversity is working to improve our gender balance. We do this through attracting women on our career site, job adverts and targeted recruitment events. We will also develop strategic employee succession plans, and strengthen internal and external communications from a diversity and inclusion perspective.

We are also dedicated to creating a multi-cultural top management team where international experience brings a global perspective with varied competencies, backgrounds and cultures that are valued in leading innovative and customer focussed teams. We encourage diversity and international experience through recruitment, job rotation, exchange programmes and international assignments.







# THE IMPACTS OF OUR PRODUCTS

Omtanke is about protecting you and your world, which we do by managing the impacts of our products. We are developing vehicles with improved lifecycle performance and low-emissions to ensure they have less impact on the planet. We are also continuing to develop industry-leading solutions that further promote safety, well-being and sustainable experiences for the customer.





#### LIFE-CYCLE PERFORMANCE

This topic is about reducing the impact our products have on our planet and providing people with sustainable mobility solutions. Volvo Cars takes a life-cycle perspective in this aspect. For us, it is not only about tail-pipe emissions, but also about being a company at the forefront when it comes to providing sustainable products and also embracing topics such as sustainable materials and remanufacturing.

#### OUR COMMITMENT

#### 1 MILLION ELECTRIFIED VEHICLES SOLD BY 2025

Our aim is to have put up to 1 million electrified vehicles on the road by 2025. This is an accumulated figure for all our plug-in hybrids and battery electric vehicles sold over time. The milestone will be achieved by offering new electric vehicles, a broader plug-in hybrid offer and by promoting market acceptance.



#### Driving future electric vehicle sales

We know that tail-pipe emissions from the use phase of our products have a negative impact on the environment.

We have therefore always worked to minimise these impacts as much as possible through emissions reductions and fuel efficiency. We now want to step up this work by driving future electrified vehicle sales to the 1 million mark and beyond. We plan to launch at least one new chargeable vehicle each year in the coming years. This will result in us being

able to offer two plug-in hybrids or battery electric vehicles per model. Our first all-electric vehicle is scheduled to be available on the market in 2019.

We also intend to prepare the market for greater electric vehicle sales by promoting market acceptance. This will involve enabling customers to understand their future needs and preferences, and encouraging authorities to support electric vehicle infrastructure.











#### **REAL-LIFE SAFETY**

Our industry-leading approach to real-life safety is a unique method of tackling vehicle safety. Rather than chasing legislation or safety test ratings, we look at real-life data to solve traffic safety issues and contribute to safer roads.

#### OUR COMMITMENT

## OUR VISION IS THAT NO ONE SHOULD BE KILLED OR SERIOUSLY INJURED IN A NEW VOLVO CAR BY 2020

We hope to achieve this vision by drawing on our world-leading expertise and through continuous innovations within vehicle safety.



#### Enhancing safety through innovation

We will continue our pioneering and innovative leadership within vehicle safety. This extensive safety research includes conducting increasingly advanced computer simulations and analysing data from thousands of crash tests.

Our objective is for each of our new cars to include at least one new safety world-first, which will ensure that we maintain our leading vehicle safety position in the automobile industry.

Forthcoming safety innovations include run-off road mitigation and large animal detection.

Also, we aim to take a leading position within autonomous driving. Statistics show that 90% of accidents are caused by distracted drivers. Therefore, putting vehicles with autonomous driving capabilities on the roads is and will be an enabler for us to achieve our vision.











#### CUSTOMER EXPERIENCE

We are a human-centric car company with a culture that is genuinely interested in understanding and anticipating the real needs, wants and lives of our customers. This topic is about demonstrating that customers can rely on us as a producer and that we protect what is important to them by providing innovative and sustainable solutions in several areas.

#### OUR COMMITMENT

#### CLEANZONE LEADERSHIP

We aim to be a leader in customer well-being by offering industry-leading air delivery solutions and materials. We will achieve this commitment through innovations in filters and materials, as well as providing visualization tools to enhance the customer experience.



#### Ensuring customer well-being

We aspire to be a leader in customer well-being by equipping our cars with industry-leading air quality innovations and by making sound interior material choices.

Forthcoming air quality innovations include a new pre-cleaning function, and advanced air cleaning technology. Our new cars will also enable drivers and passengers to visualise interior and exterior particle pollution information, and we will launch an air quality visualization app for mobile devices.

Customer well-being is also related to the materials we select for the interior of our cars. This involves careful selection to minimise odour and other potential allergens from materials such as textiles, plastics and metals.











## **OUR ROLE IN SOCIETY**

Omtanke is about contributing towards a better society and protecting people and our climate by creating partnerships for sustainable development and promoting traffic safety in the car industry together with local and international organisations. It also guides us in our work to encourage responsible business practices throughout our value chain by promoting ethical leadership and human rights.



#### PARTNER IN SUSTAINABLE DEVELOPMENT

We want to play our part in society, but realise that we are restricted in individually creating a better world. By forming partnerships with global organisations and cooperating to achieve common objectives, we can collectively optimise our positive societal contribution.

#### OUR COMMITMENT

#### ENGAGE IN CORPORATE PARTNERSHIPS

We will continue to cooperate and partner with key organisations on a global or national level with the objective of promoting sustainable development.



#### Deepening our engagement with key organisations

We will continue to participate in local activities that are managed by our local business functions, and deepen our partnerships with global organisations.

On a global level, we are identifying key global organisations that we will prioritise partnerships and cooperation with going

forward. Examples of such organisations include:

- UN Global Compact
- Transparency International

We believe that these prioritised organisations will optimise our contribution to society by complementing the knowledge and expertise we bring to international projects and partnerships.







#### SAFER BY SHARING

Our work with traffic safety goes beyond the occupants in our cars and other road users, such as pedestrians and cyclists. It is also about knowledge transfer. We share our real-life safety perspective, our experiences and our unique way of working in partnership with stakeholders. Our approach to sharing benefits people, society and the planet.

#### OUR COMMITMENT

#### KNOWLEDGE SHARING TO IMPROVE TRAFFIC SAFETY

We will continue to actively cooperate and partner with key organisations and society that help to share our knowledge on traffic safety.



#### Continuing to share our traffic safety knowledge

Building on our long history of close collaboration with the Swedish Transport Administration (Trafikverket), we will intensify our work to share our industry-leading traffic safety expertise.

This will involve deepening our engagement with the World Health Organisation (WHO) and their Decade of Action for Road Safety organisation, as well as the China Automotive Technology & Research Center (CATARC) on sharing knowledge on traffic safety, environment and well-being, including cabin air quality

solutions. The work of these organisations directly benefits from our traffic safety expertise, and the organisations are crucial in sharing our knowledge with the rest of society.

We will also increase our active knowledge sharing in legal discussions regarding autonomous driving. It is crucial that these vehicles become a reality in order to improve traffic safety and reduce accident rates.







#### **EMBODYING ETHICS & HUMAN RIGHTS**

Embodying Ethics & Human Rights is a broad expression of our contribution to society and to responsible business conduct. Our heritage and culture are the foundation for our approach to ethical leadership, care for the environment, fighting corruption, protecting human and children's rights, and promoting responsible business conduct throughout the value chain.

#### OUR COMMITMENT

#### ETHICAL LEADERSHIP FOR RESPONSIBLE BUSINESS

We are committed to responsible business conduct and fighting corruption wherever we operate through ethical leadership. This involves our leaders setting the standard and being role models for ethical behaviour and professional integrity.



#### Promoting ethical and responsible business

Our leadership programmes will focus on establishing an ethical role model mindset among our leaders, and we will begin measuring leadership behaviour related to business ethics for top management in 2016. Ethical leadership will be a key performance criterion for all leaders by 2018.

Our top-level managers are encouraged and expected to actively promote openness, zero tolerance against corruption,

responsible business and a "speak up" culture. Ethics and responsible business conduct are to be on the leadership team agenda at least on an annual basis.

All our employees attend Code of Conduct training, and we intend to conduct a Culture of Ethics employee assessment in 2017. We also plan to have an external party verify our anti-corruption programme in 2017.











# STAKEHOLDER ENGAGEMENT AND MATERIALITY ANALYSIS

#### Our approach to stakeholder involvement

Our objective is to be a long-term and trusted partner in all our stakeholder relationships. Our stakeholder involvement provides crucial guidance on how we should develop and communicate our work with sustainability. Stakeholder involvement also provides us with opportunities to collaborate with key partners on specific issues in a mutually beneficial manner.

Ultimately, we realise that our stakeholders determine how well we live up to our responsibility. They determine our success by buying our products, working efficiently and doing business with us.

#### Open communication with our stakeholders

We aspire to communicate openly with our major stakeholders. This involves participating in various networks, seminars and

conferences to obtain feedback from stakeholders and sharing information about how we work. We also encourage interested parties to provide input and pose questions, for example through our website or at citizen@volvocars.com.

#### Stakeholder dialogue and materiality analysis

Since 2012, we have undergone an extensive process to update and adjust our materiality analysis. The aim of this process has been to gather sufficient analysis and input to allow us to establish a company-wide sustainability framework, with clear priorities and commitments, as Volvo Cars moves into the future. Stakeholder consultation in recent years has been a key element in this process.

In 2012/13, we conducted individual interviews with a wide range of stakeholders across Europe and China in order to get



their views on which sustainability issues are of greatest relevance to Volvo Cars and how Volvo Cars should work to ensure long-term success. Stakeholders were invited to participate in the dialogue if they were considered to have a significant impact on Volvo Cars and/or are significantly impacted by Volvo Cars.

As Volvo Cars established operations in China, additional interviews were conducted with key stakeholders in China in 2013/14, including non-governmental organisations. Some of the issues that stakeholders identified as important to Volvo Cars in these discussions included car fuel efficiency and emissions, traffic safety, business ethics and responsible sourcing.

Based on stakeholder input and other information, including Volvo Cars' mission, vision and business plan, international guidelines and sustainability trends, we identified a list of issues that were considered as important or highly important for the company to manage. In order to validate the list of issues, a new round of stakeholder consultations was launched in 2014/15. The consultation was conducted through an online survey with the purpose of generating a quantitative validation of Volvo Cars' most material aspects.

The survey was sent to external as well as internal stakeholders, including some that had taken part in the 2012/13 dialogue. 62% of the responses came from external stakeholders including customers, suppliers, industry associations, authorities, academia and non-governmental organisations in Europe and China. Stakeholders were asked to indicate which aspects they consider to be most material to Volvo Cars, which resulted in a list of 13 aspects that were voted by at least 40% of the respondents as important:

Proportion of respondents **Prioritised topics** that rated the topic as important Fuel economy and car emissions 76.6% Car and traffic safety (product responsibility) 70.5% Social and environmental requirements on suppliers/dealers 65.2% Energy efficiency and emissions (production) 60.9% Future mobility 60.5% Code of conduct and integrity 58.1% Occupational health and safety 46.5% Research and development 46.5% Assessing, evaluating and auditing suppliers 43.2% Technology and knowledge sharing 42.9% Materials, recycling and waste 42.2% Satisfaction of customers and business partners 42.2% Environmental management 40.4%

In the same survey, although the majority of respondents perceived our sustainability performance to be good or very good (77% of the internal stakeholders and 87% of the external stakeholders), stakeholders identified sustainability governance and car fuel efficiency to be the two main areas with the greatest potential for improvement for Volvo Cars.

The survey and our previous dialogue have given us an invaluable list of topics that are material to our business. Our Sustainability Board and the respective business functions have aligned this list of topics with our various internal strategies to develop the structure and focus areas of our new Sustainability Programme – Omtanke. As a result, our new Sustainability Programme includes our material aspects that are governed through the Sustainability Board.

# SUSTAINABILITY MANAGEMENT AND GOVERNANCE

#### Our approach to sustainability management

Our human-centric perspective is an essential element of what sustainability means to us. It is about protecting what is important to you. Looking back at our heritage, it is clear that a focus on people has always been central to Volvo. Assar Gabrielsson and Gustaf Larson, Volvo's founders, stated in 1936: "Cars are driven by people. Therefore, the guiding principle behind everything we make at Volvo, is – and must remain – safety." From this, our three Core Values "Safety", "Quality" and "Environmental Care" were established together with our Core Value Statements (the Environmental Policy is one of them).

Customers and employees have high expectations on Volvo Cars in terms of environmental care and social responsibility. We believe that committing to sustainable development creates business opportunities and will reinforce our competitiveness.

#### Commitments to sustainability

In 1999, Volvo Cars was one of the first companies to act on former UN Secretary General Kofi Annan's appeal to become a signatory to the principles of the UN Global Compact. Having signed the UN Global Compact in 2000, Volvo Cars has since strengthened its commitment to the precautionary principle. From a corporate perspective, this is done through Enterprise Risk Management (see the Annual Report for further information) where sustainability-related items are covered together with the corporate governance structure Boards.

Our decisions are made on the basis of the information available to us on each particular occasion. Nonetheless, inadequate or unreliable information is often a strong indication that caution is advisable, both from a business perspective and in a broader, societal context. In addition to the UN Global Compact, our own Code of Conduct stands as a general endorsement of the following human rights frameworks and charters:

- The eight core conventions of the UN agency, ILO (the International Labour Organization):
- Child Labour (138 and 182),
- Forced Labour and Compulsory Labour (29 and 105),
- Equal Remuneration and Discrimination (100 and 111),
- Freedom of Association and Collective Bargaining (87 and 98)
- The 10 principles of the Global Compact
- The Universal Declaration of Human Rights
- UN Convention on the Rights of the Child
- OECD Guidelines for Multinational Companies
- UN Guiding Principles on Business & Human Rights

#### Sustainability governance

As the responsibility of every manager and employee, sustainability is based on our mission and company-wide guidelines. Above all, it is a mindset where all of us as individuals consider the social and environmental consequences of their day-to-day decisions.

#### The Sustainability Board

Sustainability at Volvo Cars is governed by the Sustainability Board, which is a decision-making board responsible for sustainability matters from a strategic perspective, as well as governance, communication and reporting functions. It is also responsible for the continuous follow-up of progress and performance on sustainability. The members of the board have the responsibility to ensure that the Sustainability Strategy is aligned with the Corporate Strategy and the Volvo Cars Business Plan, and that the company operates in accordance with Volvo Cars' values, the Code of Conduct and the overall Sustainability Strategy. The Board consists of the President and CEO as well as other key Executive Management Team (EMT) members.

#### The Global Compliance Committee

The Committee consists of members of the EMT and supervises the development and implementation of the Compliance Programme for the Volvo Car Group. It also reviews policies, directives and other procedures related to compliance and ethics. The Committee supervises the Corporate Compliance & Ethics Office, which manages sustainability aspects related to corporate compliance and ethics.

#### Focus areas, KPIs & commitments

Our sustainability focus areas and Key Performance Indicators (KPIs) are set and monitored by the Volvo Cars Sustainability Board. In 2015, these were based on our four sustainability dimensions. They have now been replaced by our Sustainability Programme – Omtanke (see the Omtanke section on page 28 to find out more).

#### Our Omtanke commitments



#### Company

- Climate neutral operations by 2025
- No fatalities or serious injuries at Volvo Cars
- 35% internationally diverse leaders & 35% female leaders by 2020



#### **Products**

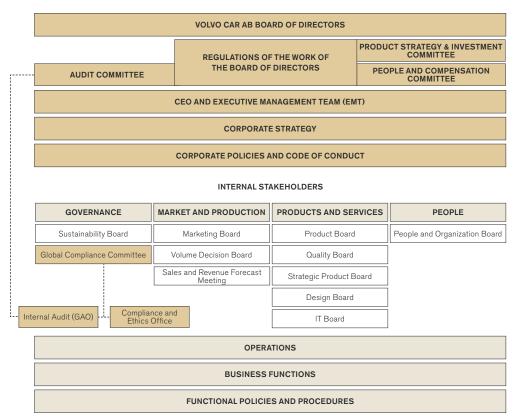
- 1 million electrified vehicles sold by 2025
- Vision: no one should be killed or seriously injured in a new Volvo by 2020
- CleanZone leadership



#### Society

- Engage in corporate partnerships
- Knowledge sharing to improve traffic safety
- Ethical leadership for responsible business

#### **CORPORATE GOVERNANCE STRUCTURE**



#### Management of material aspects

#### Energy

Aspect boundary: energy consumption within operations, excluding logistics.

We have the overall target to continuously reduce our total energy consumption and ultimately become climate neutral. Energy efficiency has been a high priority for many years with dedicated employees working solely on energy efficiency. Volvo Cars has performed an inventory of energy use in most of its buildings and operational processes, which is an important step towards reducing energy consumption. Remedial programmes have been performed at several sites and information campaigns have been conducted to educate employees on the importance of energy efficiency. We are also subject to several regulations concerning energy and emissions, for example IED (Industrial Emissions Directive) and the Swedish Environmental Code.

See page 14 for how we worked with these matters in 2015, and page 33 for details of our work going forward.

#### **Emissions**

Aspect boundary: Emissions from own operations, excluding logistics. Emissions from cars are covered under material aspect Products and Services.

The objective of climate neutral operations is an important part of our Environmental Strategy and a corporate KPI since June 2015. We manage all our direct and indirect emissions. We reduce our CO<sub>2</sub> emissions through energy efficiency measures. We use energy in the form of natural gas, LPG (liquefied petroleum gas), diesel oil and petrol for production purposes. We aim to shift from LPG and natural gas to biogas as soon as possible, but at present there are no suppliers that can deliver the quantities that Volvo Cars requires. Our indirect energy consumption is through purchased electricity and district heating for our facilities. All the electricity that we buy and use in Europe is sourced from certified hydropower and wind power generation. In Malaysia, our electricity is currently generated from coal, but as soon as renewable energy sources are available our intention is to move away from coal. In China, the supply of renewable energy is still under development, but it is expected to grow rapidly in the coming years. Volvo Cars follows this development closely and aims to contribute to the transition to renewable sources of eneray.

Volatile Organic Compounds (VOC) emissions are caused primarily by our painting operations. The Torslanda paint shop is one of the cleanest in the world in terms of hydrocarbons emitted per unit of painted surface. We will continue our efforts to

further reduce emissions with the ambition to make all our paint shops best-in-class. Our plants produce emissions of sulphur oxides (SOx) and nitrogen oxides (NOx). Such emissions have been reduced significantly in recent years, mainly as a result of our switch from oil to district heating and gas. The improvement is also due to the use of cleaner fuel oils at those locations where oil is still used for heating purposes.

See page 14 for how we worked with these matters in 2015, and page 33 for details of our work going forward.

#### Occupational Health and Safety

Aspect boundary: Own operations (i.e. Volvo Cars employees).

The automotive market puts high demands on our employees and we work to prevent employees from suffering injuries and stress-related illnesses by focusing on achieving a sustainable work-life balance. Our work environment directive and commitment state that a safe and healthy work environment is priority number one, and our Safety Culture focuses on safe behaviour and high-risk areas. We have a corporate health and safety department to ensure legal compliance and monitor the company ambition of being the employer of choice. Each division is supported by specialists that coordinate and manage our health and safety work.

See page 18 for how we worked with these matters in 2015, and page 34 for details of our work going forward.

#### **Diversity and Equal Opportunities**

Aspect boundary: Own operations (i.e. Volvo Cars employees).

Our People Policy outlines the values and expectations that we have for diversity and equal opportunities within our organisation. We have a Diversity Steering Committee that promotes diversity, and a Global Diversity Council that consists of 18 Culture and Diversity Champions. A Culture and Diversity Champion has been appointed for each business area, with the aim of integrating our diversity work more effectively into daily operations. Each business unit in the company is responsible for its own work on diversity and for setting its own targets. Diversity is a part of the business strategy to be an employer of choice and is in line with our company purpose "Designed around you". It is also an integral part of both strategic and operational decision-making at all levels of the company.

See page 19 for how we worked with these matters in 2015, and page 35 for details of our work going forward.

#### **Products and Services**

Aspect boundary: Volvo Cars products (the environmental performance of our cars).

We work continuously to improve the environmental performance of our products, particularly in terms of emissions and fuel efficiency. Following years of innovation and development, we have nine new cars scheduled for release between 2015–2020. We work to minimise fuel efficiency by working with technical solutions, such as improving aerodynamics, rolling resistance, engine efficiency, gearing and gearbox losses. We also work with smart solutions that concern how a car is driven, such as the speed you drive at, the roads you take, when you choose to drive and how you plan your driving.

See page 12 for how we worked with these matters in 2015, and page 37 for details of our work going forward.

#### **Customer Health and Safety**

Aspect boundary: Customers and other passengers and road uses

Traffic safety is the most important issue when it comes to our products and is one of our Core Values. We apply a knowledge-driven approach to safety, which combines research on driving behaviour, safety optimisation and development - both through our own research and together with key partners. We are dedicated to developing innovative, smart and integrated safety solutions that address passengers in our vehicles as well as other road users. During the car development phase, all components, systems and complete cars are extensively tested by computer stimulated programmes and third-party tests. Volvo Cars customers can monitor the safety performance of their own car through independent rating programmes. Laboratory crash tests are executed by rating institutes, and field performance based on reallife accident data, for example from insurance companies. We also actively share our knowledge with stakeholders, for example through external competence development campaigns directed towards dealers, and seminars and lectures for journalists and government authorities on how we work with vehicle safety.

See page 24 for how we worked with these matters in 2015, and page 38 for details of our work going forward.

#### **Anti-Corruption**

Aspect boundary: own operations and partners

Sustainability aspects related to corporate compliance, corruption and ethics are managed by our Corporate Compliance & Ethics Office, which is supervised by the Global Compliance Committee. The Committee supervises the development and implementation of the Compliance Programme for the Volvo Car Group, and reviews policies, directives and other procedures related to compliance and ethics. Multiple group-wide risk assessments are conducted each year, including assessments in specific areas. Training and communication also represent an important part of our Compliance and Ethics programme. During 2015, a number of revisions were made and there were several directives and guidelines added to clarify and help our employees to understand how to act accordingly. Several policies were also updated or added during the year.

See page 21 for how we worked with these matters in 2015, and page 43 for details of our work going forward.

#### Supplier Human Rights Assessment

Aspect boundary: own operations (purchasing) and supply chain

We assess, evaluate and audit our suppliers to manage the environmental and social responsibility of our supply chain. The Volvo Cars global Manufacturing Site Assessment (MSA) evaluates whether a supplier is performing according to customer expectations and requirements. Our global Supplier Evaluation Model (SEM) supports the selection of new suppliers. The SEM was re-launched during 2015 and training was conducted for the relevant employees throughout the organisation. The supplier Sustainability Self-Assessment Questionnaire (SAQ) was also implemented during 2015. Our supplier sustainability audit assessment criteria are based on Volvo Cars' Working Condition & Environment Audit Checklist. Training of purchasing managers is a fundamental tool for integrating sustainability aspects into our purchasing processes. In 2015, all purchasing managers (61) were invited to a three session face-to-face training module on sustainability and the importance of meeting stakeholder expectations as well as how to manage supply chain risks within sustainability and what it means in our day to day business. More than 75 managers within purchasing took part in Supplier Evaluation Model training in China and Sweden.

See page 26 for how we worked with these matters in 2015 and for our work going forward.

### **SUSTAINABILITY SCORECARD**

#### **ECONOMIC DIMENSION**

	2010	2011	2012	2013	2014	2015
Vehicle sales, units	373,525	449,255	421,951	427,840	465,866	503,127
Net revenue (MSEK)	-	125,500	124,547	122,245	137,590	164,043

#### **ENVIRONMENTAL DIMENSION**

Energy use, Operations Europe (MWh) <sup>1</sup>	2010	2011	2012	2013	2014	2015
Total direct energy use <sup>2</sup>	337,000	313,000	304,000	297,000	249,000	254,000
Total indirect energy use <sup>3</sup>	496,000	518,000	495,000	493,000	497,000	499,000
Total energy use (direct + indirect)	834,000	831,000	799,000	790,000	746,000	753,000
Energy use per manufactured vehicle (MWh/vehicle) <sup>4</sup>	_	1.3	1.3	1.3	1.2	1.2

<sup>1)</sup> The Volvo Cars facilities included in the data are Volvo Cars Torslanda Plant (Gothenburg, Sweden), Volvo Cars Ghent Plant (Ghent, Belgium), Volvo Cars Skövde – Engines (Skövde, Sweden), Volvo Cars Floby (Floby, Sweden) and Volvo Cars Olofström – Body Components (Olofström, Sweden). Data for Volvo Cars Malaysia - CKD (Kuala Lumpur, Malaysia) is included in data 2010-2014 but excluded for 2015.

<sup>&</sup>lt;sup>4)</sup> Data for Malaysia are included in data 2010-2014 but is excluded for 2015.

Di	rect	energy	use	by	source	Europe

(MWh) <sup>1</sup>	2010	2011	2012	2013	2014	2015
Natural gas/LPG	329,000	293,000	286,000	278,000	230,000	234,000
Oil/diesel/ petrol	3,200	3,600	4,100	4,200	3,900	3,800
Renewables (non-biomass, wind)	13,600	14,000	13,700	13,900	13,500	14,500
Renewables (biomass)	0	0	0	0	0	0
Coal	0	0	0	0	0	0
Other/Unspecified	1,800	2,200	970	1,000	1,000	1,100

<sup>1)</sup> The Volvo Cars facilities included in the data are Volvo Cars Torslanda Plant (Gothenburg, Sweden), Volvo Cars Ghent Plant (Ghent, Belgium), Volvo Cars Skövde - Engines (Skövde, Sweden), Volvo Cars Floby (Floby, Sweden) and Volvo Cars Olofström - Body Components (Olofström, Sweden). Data for Volvo Cars Malaysia - CKD (Kuala Lumpur, Malaysia) is included in data 2010-2014 but excluded

Energy use, Operations Asia (MWh) <sup>1</sup>	2010	2011	2012	2013	2014	2015
Total direct energy use <sup>2</sup>	-	-	-	-	-	177,000
Total indirect energy use <sup>3</sup>	-	-	-	-	-	102,000
Total energy use (direct and indirect)	_	_	-	_	-	279,000
Energy use per manufactured vehicle Asia (MWh/vehicle) <sup>4</sup>	-	-	-	-	-	4.2

<sup>1) 2015</sup> is the first year for which Volvo Cars is able to report figures for Asia. Entities included are Volvo Cars Malaysia - CKD (Kuala Lumpur, Malaysia), Volvo Cars Chengdu Plant (Chengdu, China), Volvo Cars Daqing Plant (Daqing, China), Volvo Cars Zhangjiakou - Engines (Zhangjiakou, China).

#### Direct energy use by source Asia

(MWh) <sup>1</sup>	2010	2011	2012	2013	2014	2015
Natural gas/LPG	-	-	_	_	-	176,000
Oil/diesel/petrol	-	-	_	_	-	800
Renewables (non-biomass)	-	-	_	_	-	0
Renewables (biomass)	-	-	-	-	-	0
Coal	-	-	-	-	-	0
Other/Unspecified	-	_	-	-	-	0

<sup>1) 2015</sup> is the first year for which Volvo Cars is able to report figures for Asia. Entities included are Volvo Cars Malaysia - CKD (Kuala Lumpur, Malaysia), Volvo Cars Chengdu Plant (Chengdu, China), Volvo Cars Daqing Plant (Daqing, China), Volvo Cars Zhangjiakou - Engines (Zhangjiakou, China).

<sup>2)</sup> Energy produced for own consumption 3) Purchased electricity and heating

<sup>2)</sup> Energy produced for own consumption
3) Purchased electricity and heating
4) 2015 is the first year Volvo Cars is able to report figures for China. Figures include Volvo Cars Malaysia - CKD (Kuala Lumpur, Malaysia), Volvo Cars Chengdu Plant (Chengdu, China), Volvo Cars Daqing Plant (Daqing, China), Volvo Cars Zhangjiakou - Engines (Zhangjiakou, China).

Emissions, Operations Europe (tonnes) <sup>1</sup>	2010	2011	2012	2013	2014	2015
CO <sub>2</sub> emissions per manufactured						
vehicle (tonnes/vehicle)	-	0.1	0.1	0.1	0.1	0.1
Direct emissions of CO <sub>2</sub> from natural gas/LPG	59,000	56,000	55,000	51,000	44,000	46,900
Indirect emissions of CO <sub>2</sub> from electricity <sup>2</sup>	3,000	3,900	4,200	4,200	4,500	0
Indirect emissions of CO <sub>2</sub> from district						
heating	5,700	3,100	2,900	4,200	1,200	800
Total emissions of CO <sub>2</sub>	67,600	63,000	61,700	59,700	49,900	47,700
Emissions of SOx <sup>3</sup>	<1	<1	<1	<1	<1	<1
Emissions of NOx <sup>4</sup>	93	80	73	76	77	80
Emissions of VOC <sup>5</sup>	720	830	790	725	675	580

<sup>1)</sup> The Volvo Cars facilities included in the data are Volvo Cars Torslanda Plant (Gothenburg, Sweden), Volvo Cars Ghent Plant (Ghent, Belgium), Volvo Cars Skövde - Engines (Skövde, Sweden), Volvo Cars Floby

<sup>4)</sup> The NOx emissions are calculated based on the quantity of fuel. Spot tests are also performed.
5) Calculations of VOC emissions are based mainly on the amount of solvents in materials used and on measurements of the degree of purification of the equipment.

Emissions, Operations Asia (tonnes) <sup>1</sup>	2010	2011	2012	2013	2014	2015
CO <sub>2</sub> emissions per manufactured vehicle (tonnes/vehicle)	-	_	_	-	-	1.1
Direct emissions of CO <sub>2</sub> from natural gas/LPG	-	_	_	_	-	36,000
Indirect emissions of CO <sub>2</sub> from electricity	-	_	_	_	-	42,000
Indirect emissions of CO <sub>2</sub> from district heating	-	_	_	_	-	2,600
Total emissions of CO <sub>2</sub>	-	-	-	-	-	80,000

<sup>1) 2015</sup> is the first year for which Volvo Cars is able to report figures for Asia. Entities included are Volvo Cars Malaysia – CKD (Kuala Lumpur, Malaysia), Volvo Cars Chengdu Plant (Chengdu, China), Volvo Cars Daqing Plant (Daqing, China), Volvo Cars Zhangjiakou – Engines (Zhangjiakou, China).

Emissions, Other	2010	2011	2012	2013	2014	2015
CO <sub>2</sub> emissions of products – EU fleet average (CO <sub>2</sub> g/km)	158	152	144	132	126	123
Global transports total CO <sub>2</sub> emissions (tonnes) <sup>1</sup>	-	-	_	-	333,971	447,267

<sup>1)</sup> In 2015, Volvo Cars has been able for the first time ever to compile figures for CO<sub>2</sub> emissions from transports. Figures have been compiled for 2014, which will be used as base year, and 2015. Based on the figures, Volvo Cars will be able to plan measures and track progress in this area over the coming years.

Waste, Operations Europe (tonnes) <sup>1</sup>	2010	2011	2012	2013	2014	2015
Hazardous waste	20,000	11,400	11,000	9,800	10,600	14,200
Non-hazardous waste	150,000	219,000	203,000	199,000	211,000	216,000
Total waste, car factories	18 500	16 000	14 000	13 000	16 000	21 000
Total waste, all factories	170,000	230,400	214,000	208,800	221,600	230,200

<sup>1)</sup> The Volvo Cars facilities included in the data are Volvo Cars Torslanda Plant (Gothenburg, Sweden), Volvo Cars Ghent Plant (Ghent, Belgium), Volvo Cars Skövde – Engines (Skövde, Sweden), Volvo Cars Floby (Floby, Sweden) and Volvo Cars Olofström – Body Components (Olofström, Sweden). Data for Volvo Cars Malaysia – CKD (Kuala Lumpur, Malaysia) is included in data 2010-2014 but excluded for 2015.

Waste, Operations Asia (tonnes) <sup>1</sup>	2010	2011	2012	2013	2014	2015
Hazardous waste	_	_	_	_	-	1,200
Non-hazardous waste	-	-	-	-	-	25,000
Total waste, car factories	_	-	_	-	-	24 000
Total waste, all factories	-	-	-	-	-	26,000

<sup>1) 2015</sup> is the first year for which Volvo Cars is able to report figures for Asia. Entities included are Volvo Cars Malaysia - CKD (Kuala Lumpur, Malaysia), Volvo Cars Chengdu Plant (Chengdu, China), Volvo Cars Daqing Plant (Daqing, China), Volvo Cars Zhangjiakou - Engines (Zhangjiakou, China).

Waste per vehicle, Total (tonnes/vehicle) <sup>1</sup>	2010	2011	2012	2013	2014	2015
Total waste per vehicle	-	36	34	32	38	47

<sup>1)</sup> Up until 2014, Volvo Cars facilities included in the data are Volvo Cars Torslanda Plant (Gothenburg, Sweden), Volvo Cars Ghent Plant (Ghent, Belgium), Volvo Cars Skövde – Engines (Skövde, Sweden), Volvo Cars Floby (Floby, Sweden), Volvo Cars Olofström – Body Components (Olofström, Sweden) and Volvo Cars Malaysia – CKD (Kuala Lumpur, Malaysia). For 2015, data also includes Volvo Cars Chengdu Plant (Chengdu, China), Volvo Cars Daqing Plant (Daqing, China), Volvo Cars Zhangjiakou - Engines (Zhangjiakou, China).

<sup>(</sup>Floby, Sweden) and Volvo Cars Olofström – Body Components (Olofström, Sweden). Data forVolvo Cars Malaysia – CKD (Kuala Lumpur, Malaysia) is included in data 2010-2014 but excluded for 2015.

2) Indirect emissions are estimated based on our assumptions for the primary energy sources for the countries in which we operate. The primary energy source for electricity in Europe is hydropower, which is climate neutral, while the primary energy source in Malaysia is assumed to be coal. <sup>3)</sup> SOx emissions are calculated on the basis of the sulphur content in the fuel.

#### **Materials**

Materials breakdown	2015 Total mate	erials breakdown (k	g)					
by car model		S80	S60	S60 Long Wheeled Base	V40 Cross	V70	XC60	New XC90
	Polymers	216	246	264	Country 253	284	293	329
	Elastomer	70	63	76	66	75		168
	Glass	42	48	52	37	50	52	63
	Others (incl.	42	46	52	31	50	52	03
	liquids, kg)	75	56	89	86	111	104	113
	Metals	1,258	1,178	1,179	1,087	1,258	1,281	1,363
Metals breakdown	2015 Metals br	eakdown (kg)						
by car model		S80	S60	S60 Long Wheeled Base	V40 Cross Country	V70	XC60	New XC90
	Ferrous metal	1,040	955	929	855	1,029	1,057	974
	Magnesium	7	11	7	3	7	7	9
	Alumnium	167	165	188	179	174	168	314
	Copper	27	23	24	25	24	24	31
Remanufacturing		2010	2011	2012	2013		2014	2015
Aluminium saved (kg)		325,502	359,742	355,126	327,003		296,868	296,730
Remanufactured parts sold		_	112,625	120,193	120,524		112,951	107,251
Water use, Operations E	Europe (m³)¹							
Total water use, all plants <sup>2</sup>		664,000	808,000	765,000	767,000		761,000	715,000
Total water use, car plants <sup>3</sup>		527,000	661,000	631,000	626,000		617,000	580,000
Water use per vehicle (m³/vehicle) <sup>4</sup>		1.5	1.5	1.5	1.5		1.5	1.3

<sup>4)</sup> Water use/vehicle is based on the number of produced cars in car manufacturing plants.

Water use, Operations Asia (m <sup>3</sup> ) <sup>1</sup>	2010	2011	2012	2013	2014	2015
Total water use, all plants <sup>2</sup>	_	_	_	_	-	696,000
Total water use, car plants <sup>3</sup>	_	_	_	_	-	665,000
Water use per vehicle (m <sup>3</sup> /vehicle) <sup>4</sup>	_	_	_	_	-	10.2

<sup>1)</sup> Main source is municipal water supplies.
2) Data include all Europen plants: Volvo Cars Torslanda, Volvo Cars Ghent, Volvo Cars Engine- Skövde, Floby, Volvo Cars Body Components Olofström as well as, up until 2014, Volvo Cars Malaysia.

As of 2015 Volvo Cars Malaysia is included in data for Asia.
3) Car plants are Volvo Cars Torslanda, Volvo Cars Ghent and, up until 2014, Volvo Cars Malaysia. As of 2015 Volvo Cars Malaysia is included in data for Asia.

<sup>1)</sup> Main source is municipal water supplies. 2015 is the first year for which Volvo Cars is able to report figures for Asia.

2) Data include Volvo Cars Malaysia - CKD (Kuala Lumpur, Malaysia), Volvo Cars Chengdu Plant (Chengdu, China), Volvo Cars Daqing Plant (Daqing, China), Volvo Cars Zhangjiakou - Engines (Zhangjiakou, China).

3) Manufacturing car plants are Volvo Cars Malaysia - CKD (Kuala Lumpur, Malaysia), Volvo Cars Chengdu Plant (Chengdu, China) and Volvo Cars Daqing Plant (Daqing, China).

4) Water use/vehicle is based on the number of produced cars in car manufacturing plants.

#### PEOPLE DIMENSION

#### **Employees**

Breakdown of employees, excluding EMT and Board, according to gender and age group as per 31 December 2015

2015						
		Women			Men	
	<30	30-50	>50	<30	30-50	>50
Sweden	5%	14%	5%	11%	40%	24%
Belgium	3%	10%	2%	13%	54%	19%
China	9%	10%	0%	49%	31%	1%
Total	5%	13%	4%	18%	40%	20%

Diversity	2010	2011	2012	2013	2014	2015
Women in leading positions	19.6%	21.3%	21.3%	22.9%	24.5%	25.6%

#### Accidents and sick leave, employees1

Injuries <sup>2</sup> (LTCR)	0.6	0.7	0.55	0.62	0.34	0.34
Serious injuries 3,4	6	15	9	6	14	16
Sick leave, employees	4.5%	4.4%	4.4%	4.5%	4.5%	4.7%

<sup>1)</sup> Data includes Europe and China

<sup>4)</sup> Volvo Cars sustainability report for 2014 contained incorrect figures for serious injuries in 2013 and 2014. These have been corrected in this table.

Accidents and sick leave, contractors 1, 2	2010	2011	2012	2013	2014	2015
Injuries	-	17	21	9	3	5
Fatalities	0	0	0	1	0	0

D Independent contractors are defined as contractors involved in the construction/re-construction of Volvo Cars' factories. Injuries and fatalities among contractors are only reported for

#### Total number of employees by employment contract and gender<sup>1</sup>

2015			
	Women	Men	Total
Total			
Permanent			
contract	21%	79%	100%
Temporary			
Temporary contract	32%	68%	100%

<sup>1)</sup> The main employment form within Volvo Cars is permanent employments, but depending on the need and duration of assignment temporary solutions will be used such as consultants, agency and temporary employment contracts. Key positions should always be employed on a permanent basis. Depending on national labour regulations and market situation the approach may vary in Volvo Cars' different locations.

#### Total number of permanent employees by employment type and gender<sup>1</sup>

2015			
	Women	Men	Total
Total	22%	78%	100%
Full-time	22%	78%	100%
Part-time	28%	72%	100%

<sup>1)</sup> For Volvo Cars in Sweden full-time employments are the main rule, but there is no generic principle on this for Volvo Car Group in total.

#### $\underline{\text{Total workforce by employees and supervised workers as per 31 December 2015}$

2015				
	Employees	Supervised workers (consultants)	Total	
	Total FTE	Total FTE	Total FTE	
Global total	28,380	3,350	31,830	

<sup>2)</sup> LTCR is defined as the number of work/Occupational accidents and Illness, reported and at least one day sick leave, divided by 200 000 hours worked (equivalent to 100 man years).
3) Defined as total number of injuries leading to fractures, unconsciousness, etc.

projects in which Volvo Cars is the developer.

2) Lost time case (LTC) figures only, worked hours for contractors is not measured therefore no figures for LTCR for contractors.

#### PEOPLE DIMENSION, cont.

Board and	Executive	Management Team
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Board members per gender and age	N.B No historic data to be reported								
group as per 31 December 2015		Women			Men				
	<30	30-50	>50	<30	30-50	>50			
			23%		7%	70%			
Executive Management Team per	N.B No historic data to be	reported							
		Women			Men				
	<30	30-50	>50	<30	30-50	>50			
			8%		30%	62%			

SOCIETAL DIMENSION	2010	2011	2012	2013	2014	2015
Universum ranking of attractive employers: engineering MSc students worldwide	-	-	-	49	40	46
Universum ranking of attractive employers: business professionals in Sweden	-	_	26	13	8	3
Percentage of product categories for which health and safety impacts are assessed for improvement <sup>1</sup>	100%	100%	100%	100%	100%	100%

<sup>&</sup>lt;sup>1)</sup> Safety is the number one priority for Volvo Cars. This means that health and safety concerns are integral in every phase in the development of all cars that is being developed and manufactured by Volvo Cars. For more information about Volvo Cars's work on safety, please see page 24.

Share of independent tests where				-		
Volvo Cars received the highest rank.	83%	95%	95%	95%	95%	96%

#### TOTAL WORKFORCE BY EMPLOYEES AND SUPERVISED WORKERS AS OF 31 DECEMBER 2015

Supervised workers	
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	Employees	(consultants)	Total	
	Total FTE	Total FTE	Total FTE	
Global				
Sweden	17,750	2,650	20,400	
Belgium	4,300	400	4,700	
China	3,900	50	3,950	
Thailand	30		30	
Malaysia	450		450	
Market Companies	2,000	300	2,300	
Global total	28,380	3,350	31,830	
Sweden				
Torslanda plant	4,900	700	5,600	
Gothenburg excluding Torslanda plant	9,250	1,600	10,850	
Skövde incl Floby	1,650	200	1,850	
Olofström	1,950	150	2,100	

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#### SPECIFIC STANDARD DISCLOSURES

IC STANDARD DISCLOSURES				
nd indicators	Page in 2015 report/ Boundaries	Comment	Omission	Reason for omission
aspect. energy	6-7, 10, 14, 31,			
	47-48			
Energy consumption within the organization	50		Volvo Cars does not sell any electricity, heating, cooling or steam. Hence only energy consumption is reported with the exception of cooling consumption.	Not relevant
aspect: emissions				
	6-7, 10, 14, 31-33, 48			
Direct greenhouse gas (GHG) emissions (scope 1)	16, 51			
Indirect greenhouse gas (GHG) emissions (scope 2)	15,51			
$NO_{x_1}SO_{x_2}$ , and other significant air emissions	51		POP, HAP and PM emissions are not reported.	Not relevant
aspect: products and services				
	10-13, 36-37, 49			
Extent of impact mitigation of environ- mental impacts of products and services	13,51	Volvo Cars defines this indicator as the measurement of the average $\text{CO}_2$ emissions from the Volvo Cars car fleet.		
aspect: occupational health and safety				
	16-18, 34, 48			
Type of injury and rates of injury, occupational diseases, lost days, and absenteeism, and total number of work-related fatalities, by region and	53		Data per gender	Not relevant. Volvo Cars does not differentiate health and safety issues on the basis of gender.
by gender			Data per region	Reliable and exact data is not available for all regions Volvo Cars hopes to be able to report per region in the future.
			Sick leave for Asia operations.	Reliable data not available for Asia.
			Sick leave/absenteeism/LTCR for independent contractors	Data not available
aspect: diversity and equal opportunitie	es			
· · · · · · · · · · · · · · · · · · ·	22, 26, 49			
Composition of governance bodies and breakdown of employees per employee category according to gender, age group, minority group membership, and other indicators of diversity	26, 49	Governance bodies are defined as the Volvo Cars Board and Executive Management Team.		
aspect: supplier human rights assessm	ent			
	22, 26, 49			
Percentage of new suppliers that were screened using human rights criteria	26, 49	Human rights requirements are communicated to all suppliers through as a part of Terms and Conditions. Volvo Cars also has several tools for assessing and supporting the improvement of suppliers' sustainability performance. For more information, follow the page references.		
aspect: anti-corruption				
0.6	21, 43, 49			
Confirmed incidents of corruption and actions taken	21			
aspect: customer health and safety				
Described of the office of the first	22-25, 38, 42, 49	Cafat dalla control de la cont		
Percentage of significant product and service categories for which health and safety impacts are assessed for improvement	54	Safety is the number one priority for Volvo Cars. This means that health and safety concerns are integral in every phase in the development of all cars that is being developed and manufactured by Volvo Cars.		
	Energy consumption within the organization  Direct greenhouse gas (GHG) emissions (scope 1)  Indirect greenhouse gas (GHG) emissions (scope 2)  NO <sub>x</sub> , SO <sub>x</sub> , and other significant air emissions  aspect: products and services  Extent of impact mitigation of environmental impacts of products and services  aspect: occupational health and safety  Type of injury and rates of injury, occupational diseases, lost days, and absenteeism, and total number of work-related fatalities, by region and by gender  aspect: diversity and equal opportunities  Composition of governance bodies and breakdown of employees per employee category according to gender, age group, minority group membership, and other indicators of diversity  aspect: supplier human rights assessm  Percentage of new suppliers that were screened using human rights criteria  aspect: anti-corruption  Confirmed incidents of corruption and actions taken  aspect: customer health and safety  Percentage of significant product and safety impacts are assessed for	d indicators  aspect: energy  6-7, 10, 14, 31, 47-48  Energy consumption within the organization  50  aspect: emissions  6-7, 10, 14, 31-33, 48  Direct greenhouse gas (GHG) emissions (scope 1)  Indirect greenhouse gas (GHG) emissions (scope 2)  NO <sub>o</sub> , SO <sub>o</sub> , and other significant air emissions  aspect: products and services  10-13, 36-37, 49  Extent of impact mitigation of environmental impacts of products and services  22, 26, 49  Type of injury and rates of injury, occupational diseases, lost days, and absenteeism, and total number of work-related fatalities, by region and by gender  22, 26, 49  Composition of governance bodies and breakdown of employees per employee category according to gender, age group, minority group membership, and other indicators of diversity  aspect: supplier human rights assessment  22, 26, 49  Percentage of new suppliers that were screened using human rights criteria  aspect: anti-corruption  21, 43, 49  Confirmed incidents of corruption and actions taken  aspect: customer health and safety  Percentage of significant product and service categories for which health and safety impacts are assessed for  22-25, 38, 42, 49  Percentage of significant product and service categories for which health and safety impacts are assessed for	aspect: energy  6-7, 10, 14, 31, 47-48  Energy consumption within the organization  6-7, 10, 14, 31, 47-48  Energy consumption within the organization  6-7, 10, 14, 31, 47-48  Energy consumption within the organization  6-7, 10, 14, 31, 47-48  Energy consumption within the organization  6-7, 10, 14, 31, 47-48  Direct greenhouse gas (GHG) emissions 16, 51 (scope 1) Indirect greenhouse gas (GHG) emissions (scope 2)  Indirect greenhouse gas (GHG) emissions (scope 2)  NO <sub>3</sub> , SO <sub>4</sub> and other eignificant air emissions (scope 2)  10-13, 36-37, 49  Extent of impact mitigation of environmental impacts of products and services  10-13, 36-37, 49  Extent of impact mitigation of environmental impacts of products and services aspect: cocupational health and safety  15-18, 34, 48  16-18, 34, 48  53  Saspect: diversity and equal opportunities  22, 26, 49  Ecomposition of governance bodies and breakdown of employees per employee category according to gender, age grup, minority group membership, and other indicators of diversity  aspect: supplier human rights assessment  22, 26, 49  Percentage of new suppliers that were screened using human rights criteria  22, 26, 49  Percentage of new suppliers that were screened using human rights criteria  22, 26, 49  Fercentage of new suppliers that were screened using human rights criteria  22, 26, 49  Fercentage of new suppliers that were screened using human rights criteria  22, 26, 49  Fercentage of significant product and actions taken  21, 43, 49  Confirmed incidents of corruption and actions taken  22-25, 38, 42, 49  Fercentage of significant product and services categories for which health and safety longers was a several tools for assessing and supporting the improvement of the impro	As indicators  ### According to the property of the property o





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