



**VOLVO
CAR GROUP**

**SUSTAINABILITY
REPORT**

2013



ABOUT THE REPORT

Volvo Cars has been reporting on environmental, health and safety aspects of its products and production since it signed the UN Global Compact in 2000. In 2003, the company produced its first Sustainability Report in line with the international reporting guidelines from the Global Reporting Initiative (GRI). By applying and living up to the GRI's international guidelines for sustainability reporting, Volvo Cars aims to ensure transparent reporting based on content which is relevant to its stakeholders. The report is structured according to the four dimensions of Volvo Cars' sustainability agenda:

- Economic dimension
- Environmental dimension
- People dimension
- Societal dimension.

For 2013, Volvo Cars reports at GRI level B (self-declared, version G3.1). The company reports on an annual basis. This report's sustainability data covers the period 1 January to 31 December 2013. The 2012 report was issued in May 2012 and is available at Volvo Cars' website:
www.volvocars.com.

This report describes Volvo Cars, defined as Volvo Car Corporation and its subsidiaries, joint venture companies and affiliated companies in China which are governed and operated by Volvo Cars. Definitions regarding boundaries for each performance indicator are given in respect to the indicator concerned. The car manufacturing plant in Chengdu, which is owned by an affiliated company, being subsidiary of Geely Zhao Yuan International Investment Co. Ltd, but is operated by Volvo Cars, as well as the operation in the two Chinese joint venture companies Zhangjiakou Volvo Car Engine Manufacturing Co. Ltd and Daqing Volvo Car Manufacturing Co. Ltd – which were established late 2013 – are not included in the specific information on indicators in this report. No significant changes with regard to scope, boundary and measurement methods compared to previous reporting periods have been made.

The Volvo Cars' Sustainability Report 2013 has not been verified by a third party. However, Volvo Cars may consider this for the future, as third party assurance is regarded as another important step to fulfil stakeholder expectations.

INFORMATION AND CONTACT

Volvo Cars values your comments and welcomes any questions you might have on sustainability and the latest Sustainability Report.

Contact person for this report:

Niklas Kilberg
Director Sustainability Coordination & Communication
Volvo Car Corporation
Corporate Communications
40531 Gothenburg
Sweden
citizen@volvocars.com
www.volvocars.com/sustainability

To read more about Volvo Car Group, see the annual report 2013 and website.

CONTENT

INTRODUCTION

About the report.....	Inside cover
CEO Comments.....	2
Sustainability score card.....	4
This is Volvo Cars.....	6
Sustainability management.....	10
Sustainability governance.....	11
Stakeholder engagement.....	12

ECONOMIC DIMENSION

Economic performance.....	14
---------------------------	----

ENVIRONMENTAL DIMENSION

Managing environmental performance	18
Environmental performance of products.....	21
Environmental performance of operations.....	26

PEOPLE DIMENSION

People vision and strategy.....	32
Responsibility and integrity within Volvo Cars.....	35
Respecting labour rights.....	37
Health and safety of employees.....	38
Diversity and inclusion.....	41
Developing employees.....	44

SOCIETAL DIMENSION

Product responsibility.....	46
Safety vision.....	46
Future mobility.....	50
Value chain management.....	52
Societal engagement.....	55
GRI Index.....	58
Glossary.....	61

CEO COMMENTS

Dear Stakeholder,

At Volvo Cars, everything starts with people. It has been our philosophy since the beginning, 85 years ago, when our founders identified safety as the guiding principle behind everything we do.

While safety remains the core of our DNA, our commitment to putting people first means we have had to evolve to incorporate our customers' changing needs and priorities. People change, and we change with them. Today, this increasingly means working to create modern cars that meet the travel needs of the population while reducing the societal and environmental impact as much as possible.

This involves designing and building cars that are as safe and environmentally friendly as possible. It means providing job opportunities and creating a workplace that allows us to attract and retain talent. It also means working closely with governments and other public sector bodies to develop better transport infrastructure. It means working with our value chain to ensure a stable supply of materials in a fair and honest manner. It means investing in new technologies.

Staying focused on environmental, human and societal dimensions helps support economic sustainability and long-term profitability and moves us towards reaching our goal: to be the world's most progressive and desired premium car brand.

This report presents our activities and achievements within our four sustainability dimensions: economic, environmental, people and societal.

You will read that this goal is taking us in some fascinating directions. The increasing demands of our customers, in combination with new and demanding regulations, such as the individual CO₂ targets per brand from the European Union, are requiring us to be both innovative and vigilant.

We have responded to these challenges by developing our new, highly efficient, four-cylinder 'Drive-E' engine family. Drive-E engines will replace all other Volvo engine families in the near future. Moreover, all Drive-E engines are prepared for electrification. Volvo Cars' objective is to offer the world's most powerful engines with the lowest environmental impact and to offer hybrid and all-electric cars.

As a leader in automotive safety, Volvo Cars has reduced the risk of being involved or injured in an accident by approximately 50 per cent since 2000. In 2013, research by independent rating institutes all over the world found that the company remains on top when it comes to automotive safety. We will never compromise as we strive to reach our vision: by 2020 no one should be killed or seriously injured in a new Volvo car.

Volvo Cars is also determined to conduct its operations in a responsible and sustainable way. All our plants follow global environmental standards set out in Volvo Cars Global Environmental Standard (VCGES). The new production facility in Chengdu, China, maintains such high standards that it today performs well above what is legally required in China.

Volvo Cars' ambition is to create a suitable, structured working environment jointly with its employees. The company also acknowledges that it is, as an employer, responsible for organizing and conducting its operations in a manner designed to prevent accidents and work-related illnesses. Volvo Cars conducts company-wide injury prevention programmes. In the past 10 years, there has been a downward trend in the risk of sustaining a work-related injury or illness.

Volvo Cars has made good progress towards its goal of becoming an employer of choice. Both in 2012 and 2013, Volvo Cars has been on the Universum list of the world's most attractive employers, in which students around the globe are asked about their ideal employers. This has been achieved by focusing on improving and incorporating global perspectives on culture, diversity and inclusion in all processes throughout the organization. The company's specific diversity target for 2020 is to achieve 35 per cent women in senior positions.

2013 was a year of groundwork for Volvo Cars: a year that was challenging and required hard work. Our commitment to sustainability is a fundamental part of this hard work. We are striving to create a more sustainable lifestyle for our customers.

Meeting these needs requires us to work with a wide range of partners. We invest time, energy and skills to be one step ahead. We are for example committed to developing autonomous driving technologies. In early December 2013, Volvo Cars and the Swedish government announced the world's first large-scale autonomous driving pilot project. From now until 2017 it will work towards having 100 self-driving Volvo cars use public roads in everyday driving conditions around the Swedish city of Gothenburg.

By spearheading the development of new technologies and creative partnerships, the company and its stakeholders can make sustainable mobility both attractive and tangible. It is an ambitious goal, but I am convinced we have the right people to take us there.

Our Scandinavian heritage is extremely important to us. The classic values of Scandinavian design such as simplicity, functionality and beauty have been the cornerstones of our design for a long time. The materials and colours we use are often inspired by nature, adding to the unique and luxurious impression of our products.

But to be Scandinavian means more than this. It also means that we feel an obligation to work towards a sustainable and green future. Respect for nature and human beings is an essential part of our Scandinavian culture.

Gothenburg, May 2014

Håkan Samuelsson
President & CEO Volvo Car Group



SUSTAINABILITY SCORE CARD

KEY SUSTAINABILITY DATA	2007	2008	2009	2010	2011	2012	2013	TREND ¹⁾
CREATING VALUE								
Total Sales (retail deliveries)	458,323	374,297	334,808	373,525	449,255	421,951	427,840	(+)
ASSUMING SOCIAL RESPONSIBILITY								
Product Responsibility								
Share of independent tests where Volvo Cars received the highest rank (%)	69	70	85 ²⁾	83 ²⁾	95 ²⁾	95	95 ²⁾	(-)
Occupational Health and Safety								
Sick leave per available hours (%)	5.50	5.00	4.70	4.50	4.40	4.40	4.50	(-)
Number of injuries resulting in at least one day of sick leave per 200,000 worked hours	1.50	0.90	0.50	0.60	0.70	0.55	0.62	(-)
Diversity and Equal Opportunity								
Share of women in leading positions (%)	18.00	18.50	18.70	19.60	21.00	21.30	22.90	(+)
Ratio of basic salary of women to men (white collar; average for grade levels)	n/a	1.03	1.03	1.01	0.97	0.97	0.96	(-)
Ratio of basic salary of women to men (blue collar; average for grade levels)	n/a	0.97	0.99	0.79	0.99	0.99	1.01	(=)
Employment								
Total workforce - per year end - average per year	24,384	22,732	19,650	19,494	21,512	22,715 22,881	23,579 23,242	(+)
Rate of employee turnover	9.10	9.20	12.80	3.30	2.30	2.80	not available	
PROMOTING ECOLOGICAL SUSTAINABILITY								
Emissions from product								
Fleet average CO ₂ in EU (g/km)	190	182	173	157	151	143	131	(+)
Energy use in car production								
Total energy consumption in car production (MWh)	916,669	816,581	713,079	837,785	815,301	798,487	776,587	(+)
Emissions from production								
Total carbon dioxide emissions (tonnes)	126,735	68,367	58,980	67,585	62,922	61,670	59,729	(+)
NOx emissions (tonnes)	101	90	71	85	80	72	76	(-)
SOx emissions (tonnes)	1	<1	<1	<1	<1	<1	<1	(=)
VOC emissions (tonnes)	740	712	527	738	828	796	724	(+)
Hazardous waste (tonnes)	11,395	9,320	5,594	9,087	11,439	10,837	9,760	(+)

¹⁾ Trend indicates our progress in relation to Volvo Cars' goals and vision. A plus sign (+) indicates that the company is moving in the right direction toward our goals, a minus sign (-) indicates that actions need to be taken for the company to develop towards our desired direction.

²⁾ Restated due to changes in calculation methodology.

RECOGNITION AND AWARDS

Volvo Cars has been named the best car maker in the Sustainable Brand Index™, Scandinavia's largest brand study on sustainability. It is an annual study covering the largest brands in Sweden, Norway, Denmark and Finland. Volvo Cars ended up 7th of the 228 most sustainable companies in Sweden, as perceived by the 23,000 consumers that participated in the study.

Volvo Cars remains on top when it comes to automotive safety awards. Volvo Cars' pioneering work on pedestrian protection was rewarded with the "2013 Global NCAP Innovation Award" in May. The award recognized a number of ground-breaking pedestrian protection systems developed by Volvo Cars in recent years. Volvo Cars' leadership in safety was further supported by a safety report of the Swedish insurance company Folksam in September 2013. The report put forward four Volvo models – the S60, V60, V70 and S80 – as leading the ranking by an extensive margin. The Folksam study evaluates the safety performance of 238 car models involved in 158,000 accidents that were reported to the Swedish police between 1994 and 2013.

For the full list of awards, see: <https://www.media.volvocars.com/global/en-gb/awards>



Prof. Lotta Jakobsson, Senior Technical Specialist Safety at Volvo Cars Safety Centre, receives the Global NCAP Innovation Award from FIA Foundation Director General David Ward.

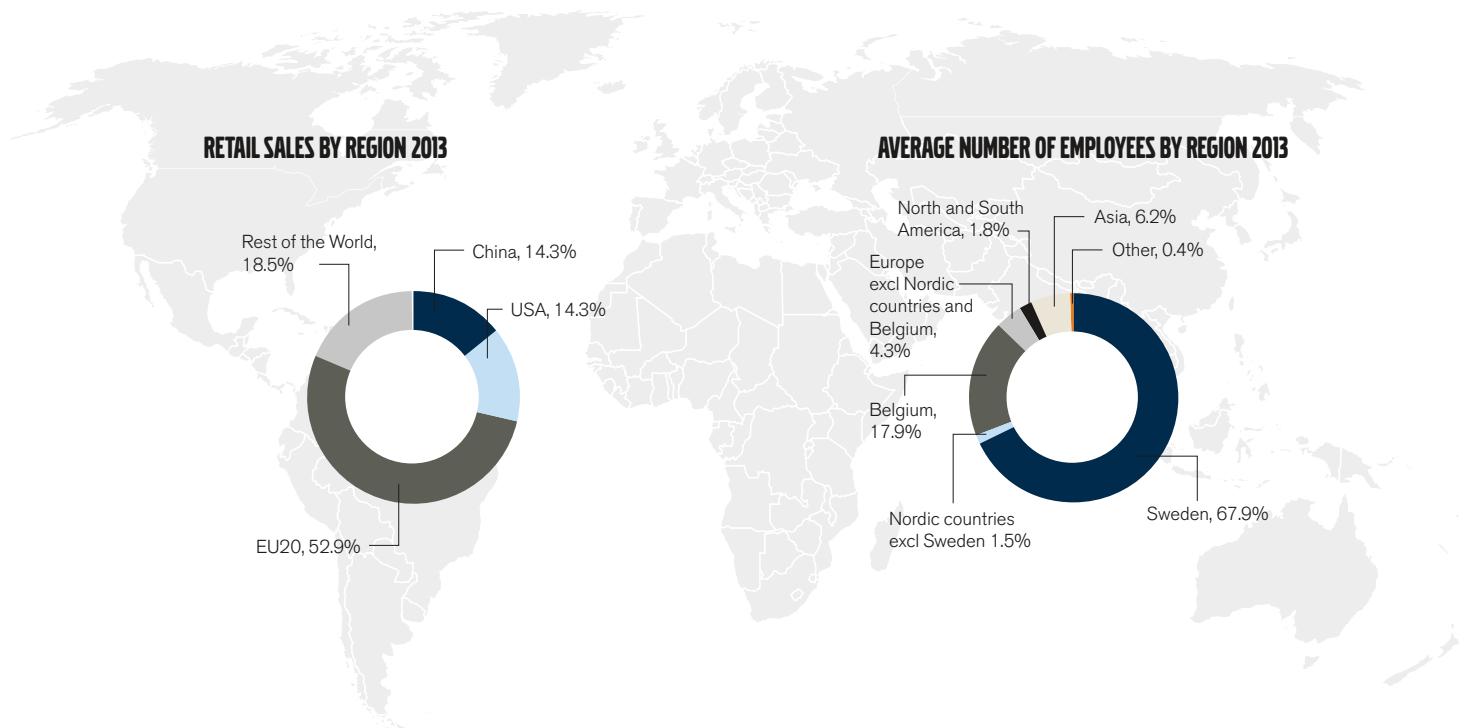
THIS IS VOLVO CARS

Volvo Cars' history dates back to 1927 when the Swedish company Volvo Car Corporation was founded and the first Volvo car was launched. Volvo Cars is headquartered in Gothenburg (Sweden). Volvo cars are produced in factories in Torslanda (Sweden), Ghent (Belgium), Chengdu (China), Chongqing (China), and Kuala Lumpur (Malaysia). Since 2010 Volvo Cars has been owned by Zhejiang Geely Holding Group Co. Ltd (Geely). In 2013 around 2,300 Volvo dealers sold 427,840 cars in 100 countries around the world. As of December 2013, Volvo Car Group employed about 23,500 people.

Volvo Cars is going through a major transformation in line with the corporate and brand strategy "Designed Around You", which is all about the customer and a human-centric focus. Designed Around You is the foundation of the corporate culture and the strategy sets the objectives for Volvo Cars to establish itself as a leading brand within the premium segment.

With roots firmly based in its Swedish heritage, China is becoming the second home market of Volvo Cars with extensive commercial and industrial presence. Additionally, new vehicle and engine technology will serve the global market and ensure a premium customer experience based on safety, contemporary Scandinavian design, environmental care and clever functionality.

The corporate strategy Designed Around You states clear and ambitious objectives and underlines Volvo Cars' commitment to take control of its future product development with an in-house developed scalable platform and a new modular Powertrain family. Volvo Cars has also set out to leverage its existing fundamental brand pillars: intuitive innovations, safety, environmental performance and Scandinavian design. The long-term strategy which will lead to sales of 800,000 vehicles annually, combined with sustainable profitability, will be achieved by focusing on the key regions Europe, China and the US.



SALES BY MODEL

	2012	2013
S40	12,354	181
S60	64,746	61,579
S60L	-	67
S80	11,698	7,951
S80L	5,545	3,531
V40	22,202	78,307
V40CC	244	21,604
V50	30,246	223
V60	53,037	54,666
V70	31,522	26,133
XC60	106,203	114,010
XC70	25,579	24,418
XC90	31,290	23,784
C30	19,256	5,628
C70	8,029	5,758
Total	421,951	427,840

SALES BY TEN BIGGEST MARKETS

	2012	2013
US	68,079	61,233
China	41,989	61,146
Sweden	51,832	52,260
UK	31,743	32,678
Germany	32,070	26,680
Netherlands	16,338	23,006
Japan	13,848	16,897
Belgium	16,338	16,670
Russia	20,364	15,017
Italy	14,855	13,708

The start of the journey

- Division to stand alone
- Become a leading global premium auto brand
- Independent development of a modular product technology: Scalable Product Architecture
- Independent development of powertrains: Drive-E
- China industrial footprint
- Employee culture change: Aspired Culture

Where are we today?

- Launch of model year 2014, the most extensive renewal of the model range in Volvo Cars' history
- Production and launch of a in-house developed powertrain: Drive-E
- Production start in Chengdu
- Launch of a new design strategy: Concept Coupé

2020

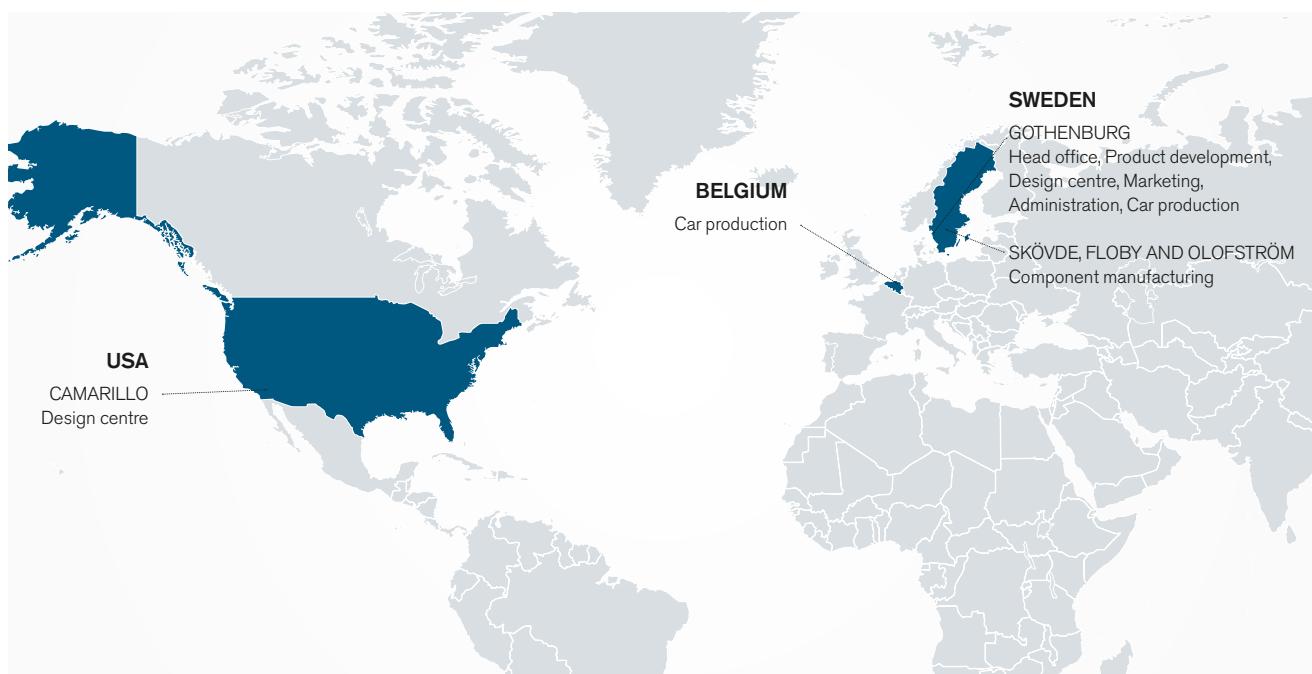
A leading premium brand

2013

2010



THE WORLD OF VOLVO CARS



VOLVO CARS IN CHINA



The China expansion continued with the establishment of two joint venture companies for manufacturing plants in 2013: Zhangjiakou Volvo Car Engine Manufacturing Co. Ltd and Daqing Volvo Car Manufacturing Co. Ltd, in each of which a subsidiary of Volvo Car Corporation owns 30 per cent with the remainder owned by Shanghai Geely Zhaoyuan International Investment Co. Ltd and Zhejiang Geely Holding Group Co. Ltd.

To read more about Volvo Car Group, see the annual report 2013:
www.volvcars.com.

VISION, MISSION AND VALUES

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**.

Aspired culture: Our Volvo Cars Culture unites us in the most unique way and it starts with our commitment to making a difference in **people's** lives. We are people that create cars for people. Our success lies in being truly passionate for our customers and cars, while moving fast and aiming higher than ever before. We dare to challenge and accept challenges, yet never compromise the **respect** we have for one another.

Core values: Our heritage, knowledge, success and culture have shaped and evolved our core values: Safety, Quality and Environment. They are the cornerstones that have built the foundation of our business and the basis of our global success, and they will continue to do so in the future.

- Everyone associates Volvo with **safety** – and it's a reputation we have earned. Volvo's innovation in automotive safety is renowned and respected the world over, especially our achievements in crash safety. We will continue the development of these state-of-the-art innovations in the future, but now we're also focusing on preventative safety and peace of mind in all driving conditions.
- **Quality** has always been at the very heart of our engineering and design philosophy. We will continue to deliver products of high quality with exceptional attention to detail. That's what Scandinavian craftsmanship is famous for. We will create products that go beyond our customers' expectations, and enable them to enjoy every journey with confidence.
- People's health, energy efficiency and resource efficiency drive our focus on the **environment**. We will continue to design our products to be a natural part of a sustainable future and to be a natural part of people's lives, as we strive towards uncompromised mobility.



SUSTAINABILITY MANAGEMENT

FOR VOLVO CARS, BEING SUSTAINABLE IS IN OUR HERITAGE.
IT IS SIMPLY OUR WAY OF DOING BUSINESS.

Looking back on Volvo Cars' heritage, it is apparent that "people" has always been a central word for 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." Volvo Cars' current strategy Designed Around You is a direct follow-up of this vision. Designed Around You means that everything Volvo Cars does starts with people. It's what makes the company different from other car companies, and it is at the heart of everything Volvo Cars creates. This business strategy, launched in 2011, summarizes the company's approach to understanding people, giving them an experience that is more human-oriented – while at the same time linking firmly to the heritage of building safe and dependable cars. This strategy delivers human-centric mobility solutions that make a sustainable lifestyle a positive lifestyle. The human-centric perspective is an essential element of what sustainability means to Volvo Cars. Customers and employees have high expectations of Volvo Cars in terms of environmental care and social responsibility. Volvo Cars believes that committing to sustainable development creates business opportunities and will reinforce the company's competitiveness. Ultimately, the company realizes that its stakeholders determine how well it lives up to its responsibility. They determine Volvo Cars' success by buying its products, working productively and doing business with the company.

The sustainability agenda for Volvo Cars is described in four dimensions: a people dimension, a societal dimension, an economic dimension and an environmental dimension.

Together, these four dimensions cover Volvo Cars' work towards a sustainable future. For each of the dimensions, focus areas/Key Performance Indicators (KPIs) have been developed. Examples are presented in the illustration below. The KPIs are monitored by the Volvo Cars Sustainability Board and progress is followed up at least yearly or more often if appropriate. The results can be found throughout this report.

SUSTAINABILITY FOCUS AREAS

Economic Dimension	Environmental Dimension	People Dimension	Societal Dimension
Job creation	Energy efficiency	Diversity & inclusion	Compliance & ethics
Transfer of technology and knowledge	Zero environmental accidents	Health and safety of our employees	Anti-Corruption, anti-trust and fair competition
Payments to the public sector	Harmful emissions from production & cars	Employee engagement	Progress towards our Safety Vision 2020
Mobility and infrastructure contributions	Water & waste management	Training & competence development for our employees	Value chain development
R&D for future mobility	Materials & recycling		Stakeholder dialogue



SUSTAINABILITY GOVERNANCE

SUSTAINABILITY IS NOT A WRITTEN STRATEGY; IT IS A LIVING, EVOLVING, SHARED EXPERIENCE FOR ALL EMPLOYEES.

Sustainability is central to all Volvo Cars' decisions and investments. It is key to successful and ethical business. As the responsibility of every manager and employee, sustainability is based on the company's mission and on company-wide guidelines. Above all, it is a mindset whereby all employees as individuals consider the social and environmental consequences of their day-to-day decisions.

Sustainability at Volvo Cars is governed through the Sustainability Board. Volvo Cars' Sustainability Board reviews and aligns the sustainability-related strategies developed by various parts of the organization and creates an overall Sustainability Strategy. It is also responsible for the continued follow-up of progress and performance on sustainability. In this work, the Sustainability Board serves as the governing body for the key activities identified and executed by the Director of Sustainability Coordination and Communication and his/her cross-functional projects. The members of the board have the mission to ensure that the sustainability dimension is included in the overall business and the company operates in line with Volvo Cars' values, the Code of Conduct and the overall Sustainability Strategy. The Board reports progress to the Executive Management Team (EMT).

The operational environmental issues within Volvo Cars are governed and driven by an Environmental Committee, which is chaired by one of the members of the Sustainability Board. The Environmental Committee has the authority to make decisions on issues such as environmental audits, environmental communication, consequences of new/changed legal demands, permit issues, site assessments and environmental insurance issues. It also recommends decisions to EMT regarding environmental strategy, targets, policy, governing documents and environmental management systems.

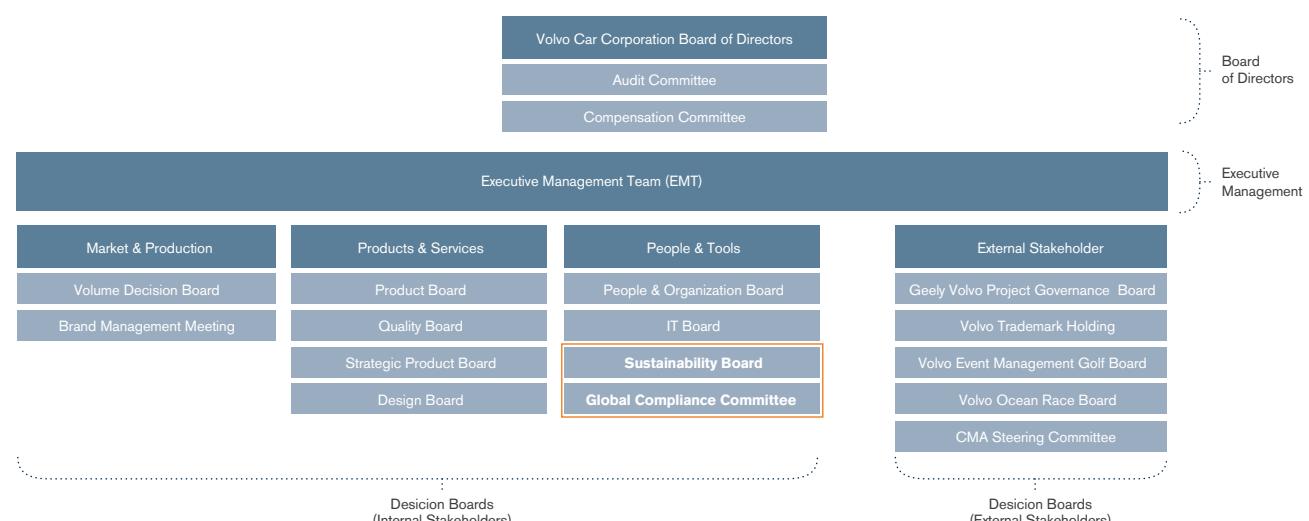
Sustainability aspects related to corporate compliance and ethics are handled by the Corporate Compliance & Ethics Office that is supervised by the Global Compliance Committee consisting of members from

the EMT that decide and provide guidance. The Global Compliance Committee supervises the development and implementation of the Compliance Programme for the Volvo Car Group. It also engages in the reviews of policies, directives and other procedures related to compliance and ethics. The Committee also reviews and decides how to handle compliance cases reported by the Corporate Compliance & Ethics Office, events reported by Security as well as matters reported by Internal Audit.

COMMITMENTS TO SUSTAINABILITY

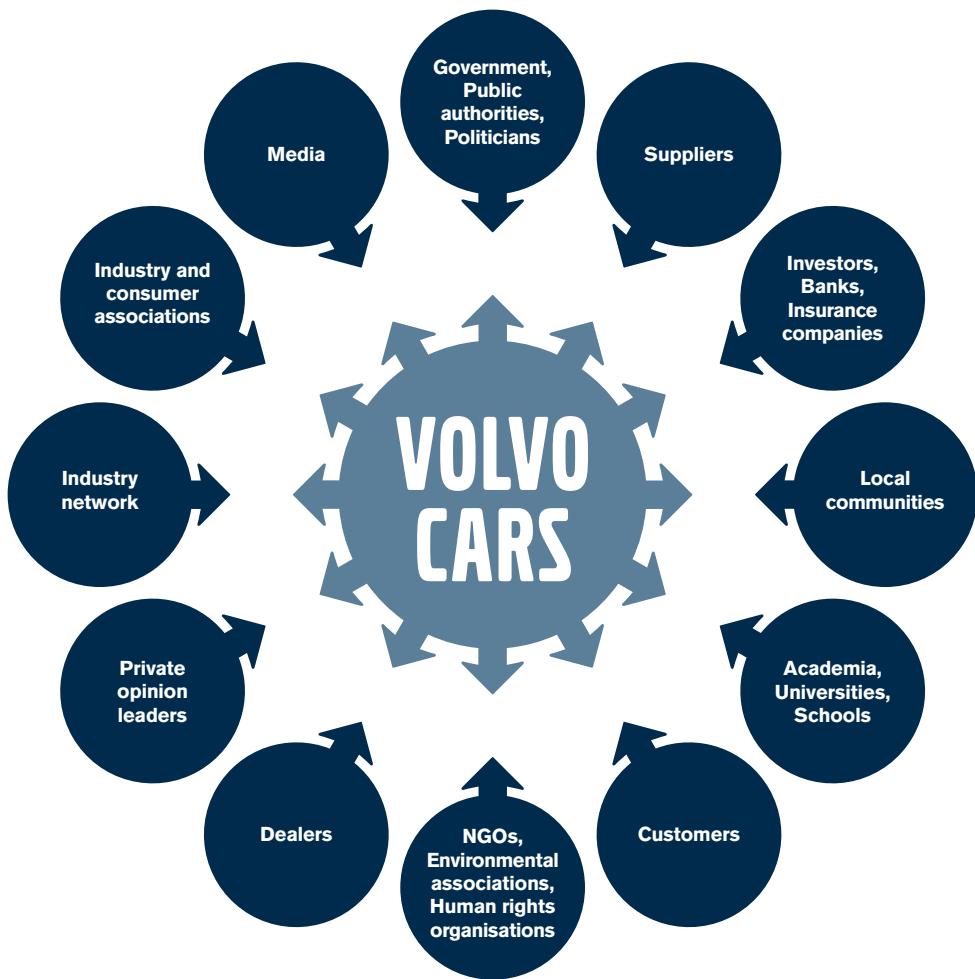
In 1999, Volvo Cars was one of the first companies to heed former UN Secretary General Kofi Annan's appeal to become a signatory to the principles of the UN Global Compact. Having signed the UN Global Compact in 2000, the company has since supported the precautionary principle. Volvo Cars' decisions are made on the basis of the information available 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. The UN Global Compact is not the only commitment. Volvo Cars' 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.



STAKEHOLDER ENGAGEMENT

WE CANNOT FIND SOLUTIONS IN ISOLATION. WE WILL BUILD AND NURTURE OPEN PARTNERSHIPS WITH A WIDE RANGE OF STAKEHOLDERS.



Volvo Cars maintains relationships with various stakeholders that influence or are influenced by its operations – from customers and employees to business partners, organizations and the communities in which the company operates. Each of these groups represents a special responsibility and the company's goal is to be, and to be perceived as, a responsible partner in all of its relationships.

Volvo Cars sees an ongoing and trustful interaction and dialogue with its stakeholders as key to providing guidance on how the company should develop its work with sustainability. Volvo Cars has been developing various methods of interacting with key stakeholders over several years. One of the objectives is to gather inputs on which sustainability issues the company should focus its work on, and how it should handle these issues. Another objective is to develop an ongoing two-way discussion that can lead to collaboration on specific issues and mutual benefits.

APPROACH AND OUTCOME

Knowing what the most important stakeholders think and expect of their relationships with Volvo Cars is the key to progress as a company. Volvo Cars' aim is to establish open channels and hold regular meetings with its major stakeholders. The company believes in good relations and mutual understanding towards all stakeholders. For this reason, Volvo Cars participates in various networks, seminars and conferences to hear the views of others and to inform them of its work. The company also encourages interested parties to contact us; for example, through its website or at citizen@volvocars.com.

Stakeholder Group	Examples of engagement methods to discuss sustainability issues	Extract of discussed topics	More information
Employees	<ul style="list-style-type: none"> Regular discussions with organisations representing the workforce Workshops One-to-one interviews Anonymous survey 	<ul style="list-style-type: none"> Environmental performance Human rights Safety Quality 	16–17, 21–31, 35–40
Suppliers	<ul style="list-style-type: none"> One-to-one interviews Supplier Trainings Supplier Open Days Joint projects Daily liaison 	<ul style="list-style-type: none"> New technologies to reduce CO₂ emissions Responsible marketing Environmentally responsible production and recycling 	21–35, 25–30, 49–50
Academia, Universities, Schools	<ul style="list-style-type: none"> Project cooperation with Chalmers One-to-one interviews Surveys among engineering and economics undergraduates from universities 	<ul style="list-style-type: none"> Rare materials in Volvo Cars Developing a legitimate value proposition towards mobility Fuel efficiency Alternatives for fossil fuels Environmental friendly production Brand positioning and sustainability marketing Talent recruitment at universities 	2–3, 22–24, 26–30, 49–50
Industry network	<ul style="list-style-type: none"> Swedish Business and Human Rights Network One-to-one interviews Joint projects 	<ul style="list-style-type: none"> Human rights management within multinational organisations Brand and reputation Fuel efficiency How to develop a holistic approach to sustainable mobility 	2, 5–7, 35–37, 56–57
Customers	<ul style="list-style-type: none"> One-to-one interviews Customer surveys 	<ul style="list-style-type: none"> Environmental friendliness and energy efficiency in the user phase of a car Environmental friendly production Safety standards Branding sustainability 	11, 21–30, 46–48
Dealers	<ul style="list-style-type: none"> One-to-one interviews National sales companies (interface between the dealer network and Volvo Cars) Dealer Satisfaction Survey 	<ul style="list-style-type: none"> Good publicity and brand image Quality of locally manufactured cars in China Environmental concerns of customers 	15–17, 49
Government, Public authorities, Politicians	<ul style="list-style-type: none"> One-to-one interviews Public dialogues 	<ul style="list-style-type: none"> Fuel efficiency Reduction of CO₂ Safety 	22–23, 48–49
Investors, Banks, Insurance companies	One-to-one interviews	<ul style="list-style-type: none"> Long-term stable cooperation with value-chain partners Research & development Chinese market conditions Being environmental friendly throughout the whole value-chain Maintaining the safety track-record Delivering high quality products 	15–17, 21–23, 46–47, 52, 56
Local communities	<ul style="list-style-type: none"> Regular meetings with local representatives One-to-one interviews Joint pilot projects 	<ul style="list-style-type: none"> Reducing emissions Electric cars Autonomous driving 	21–22, 26–28, 50
NGOs, Environmental associations, Human rights organisations	One-to-one interviews	<ul style="list-style-type: none"> Understanding Chinese local context and laws Human resources issues and recruitment Prevention of child labour Contribution to environmental and social change Quality & safety Reduction of CO₂ emissions 	10, 16–19, 27–28, 32–48, 52–54
Media	<ul style="list-style-type: none"> Press releases Company visits One-to-one interviews 	<ul style="list-style-type: none"> Environmental and social impact as well as safety performance of Volvo Cars Chinese market conditions Product development 	15, 16, 18–31, 46–48
Industry and consumer associations	<ul style="list-style-type: none"> Memberships in industry associations ACEA REACH task force ASTA Active safety test area One-to-one interviews 	<ul style="list-style-type: none"> Implication of REACH legislation Developing a novel proving ground for active safety systems Communication with authorities and customers 	30, 46–49, 55

In addition to its ongoing stakeholder engagement activities, Volvo Cars organized a special consultation with Chinese stakeholders in 2013. Selected key stakeholders were interviewed on the sustainability-related opportunities and risks in doing business in China. The results were discussed internally and considered together with the outcomes of the previous consultations and internal workshops when defining the content of this report. Also, broader social expectations and the

company's impact on the economy, the environment, as well as social impacts were taken into account in this process.

In 2014, Volvo Cars will carry on the dialogue and interactions with its different stakeholders shown in the table above. For more information on how Volvo Cars engages with its stakeholders, see "Societal engagement" on page 55.

ECONOMIC PERFORMANCE

WE WILL LEAD RATHER THAN FOLLOW OUR CONSUMERS AND CUSTOMERS.

Volvo Cars' long-term objective is to deliver sustainable top car industry profitability. Volvo Cars' sustainability agenda with its economic, environmental, people and societal dimensions will be drivers to achieve this objective. For each of the dimensions, focus areas with Key Performance Indicators (KPIs) have been developed. Managing the different business areas in a sustainable way will have a variety of positive effects, e.g. implementation of efficient processes, fulfilment of customer demands and stakeholder expectations, becoming the employer of choice, securing a healthy supplier base. These effects will lead to tangible, positive results such as increased business opportunities and increased revenue. At the same time this will contribute to increased productivity and reduced costs. Moreover, this will lead to increased customer loyalty and ensure good reputation. Ultimately, the sustainability agenda with its focus areas will help contribute to the overall objective of long-term profitability.

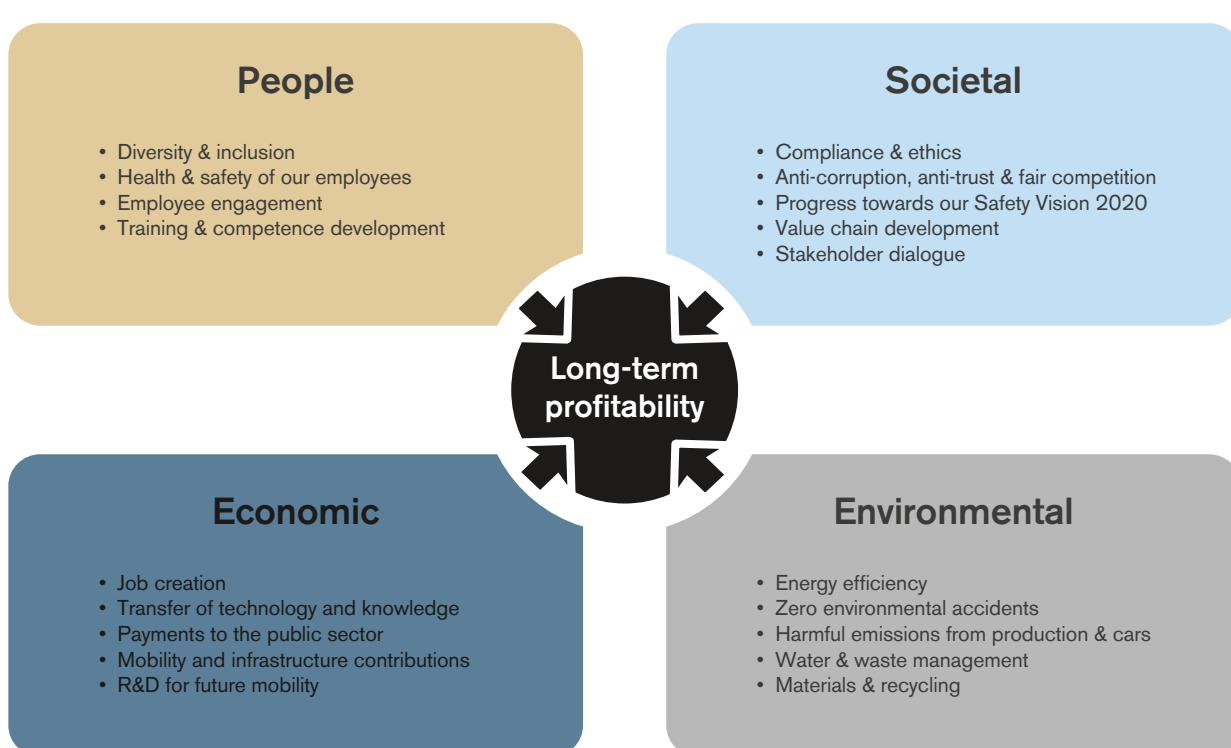
Volvo Cars' customers and employees have high expectations in terms of environmental care and social responsibility. Competition is tough – not only for customers, but also for skills. Volvo Cars knows that having a good reputation strengthens the brand and therefore makes it easier to recruit and retain employees. The company also knows that an understanding of the long-term challenges facing society is a force for innovation and generates business opportunities. Volvo Cars' decision to commit actively to sustainability is based on the conviction that this will reinforce our competitiveness in both the short and long term.

Ultimately, Volvo Cars' stakeholders determine how well the company lives up to its responsibility. They determine the company's success by buying Volvo Cars' products, working productively and doing business with the company.

Throughout this report, Volvo Cars presents the company's sustainability management approach and the 2013 performance of the sustainability focus areas. Volvo Cars is seeking to establish a balance between the needs of the company, its customers, society as a whole and future generations. The economic objectives and sustainability commitments should complement one another; Volvo Cars believes in creating value in business and society alike. Detailed information on the company's economic results, including the performance against the profitability target, is presented in Volvo Cars' Annual report. The Annual Report can be found on Volvo Cars' website.

The chapter on the economic dimension in this sustainability report comprises an extract of key facts and figures from Volvo Cars' Annual Report and an overview of Volvo Cars' indirect economic impact.

As with other focus areas, quality management helps us to ensure that Volvo Cars is on the right track when it comes to customer loyalty, good reputation and reduction of costs (e.g. warranty costs) – all of which are important parameters to drive performance and profitability. Therefore, the following chapters also provide insights into the company's quality management and customer satisfaction efforts.



KEY FACTS AND FIGURES

As of December 2013, Volvo Car Group employed more than 23,500 people. In 2013 Volvo Cars produced cars in manufacturing/assembly sites located in Gothenburg, Ghent, Chengdu, Uddevalla, Chongqing and Malaysia.

2,300 Volvo dealers sold 427,840 units in 100 countries around the world. This signifies a retail sales increase of 1.4 per cent compared to 2012. The five biggest markets were the US, China, Sweden, the UK and Germany.

2013 saw the introduction of the biggest renewal programme in Volvo Cars' history. During the first half of the year, dealer stock reduction and phase-out of the older models resulted in negative wholesales in a year-on-year comparison. After the launch of the new models, retail sales increased and reached about the same volumes in 2013 as in 2012, mainly driven by China.

Industry outlook

Demand for new cars in large developed markets such as the US remains quite healthy, but the shift away from larger cars to smaller, more fuel-efficient models continues. This indicates that consumers remain financially constrained and that fuel efficiency is becoming a key factor when it comes to deciding which car to buy. At the same time, consumers in larger emerging markets such as Brazil, Russia, India and China are seeking bigger and more luxurious cars, especially SUVs. Crucially, however, they are also demanding fuel efficiency and

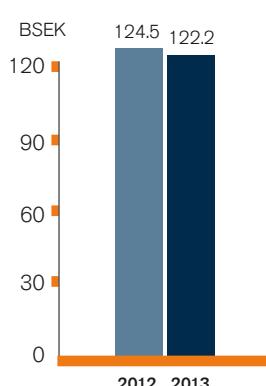
environmental friendliness. Hybrid and electric cars are unlikely to satisfy this demand in the short term and this has raised interest in optimizing and downsizing the internal combustion engine, possibly in line with electrification.

In China, growth will continue to develop strongly as increasing disposable income makes cars affordable. In the long term, car sales in the US are expected to be back at pre-crisis level by 2016, while Europe faces a new normal with car sales staying below pre-crisis levels for the foreseeable future. The automotive industry has shown itself to be resilient and open to change during economic uncertainty. But the way in which it handles the twin pressure of economic and structural change will define its longer-term future.

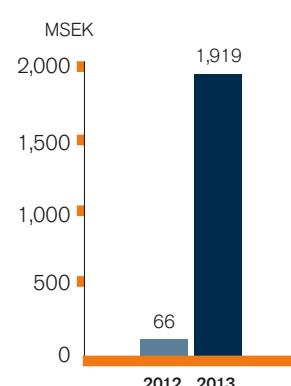
Investments in sustainable future mobility

Sustainability is central to all decisions and investments; it is the key to successful and ethical business. In 2013, Volvo Cars made a multi-billion dollar investment in SPA (Scalable Product Architecture) and Drive-E (Volvo Cars' new engine, earlier referred to as VEA). The main part of these two projects will be carried out in Sweden, constituting one of Sweden's largest-ever industrial investments. At the Swedish operations in Torslanda and Olofström, work continued to make the plants ready for the production of cars built on the SPA architecture. To learn more about the positive environmental effects of these new technologies see page 22–24.

NET REVENUE



OPERATING INCOME



KEY FIGURES

	2012	2013
Retail sales	421,951	427,840
China	41,989	61,146
USA	68,079	61,233
EU 20	227,027	226,095
of which Sweden	51,832	52,260
Rest of World	84,856	79,366
Wholesale	432,950	419,728
Net revenue, MSEK	124,547	122,245
Operating income, MSEK	66	1,919
Net income, MSEK	-542	960
Operating & investing cash flow, MSEK	-4,929	21
EBIT margin	0.1%	1.6%
EBITDA, MSEK	8,082	9,826
Equity ratio	28.5%	28.1%

INDIRECT ECONOMIC IMPACT

Though Volvo Cars is a relatively small company, its brand is global and so is Volvo Cars' influence. Through its operations Volvo Cars has significant direct and indirect economic impact. The company directly impacts suppliers, sub-suppliers, dealers and employees. Volvo Cars for example generates an economic base for local contractors, consultants and workers. Indirectly, Volvo Cars also has indirect economic impact through investments, research and collaboration projects and through municipal tax revenues. Volvo Cars' operations for example foster private purchasing power and local small businesses. The company actively manages and discusses its indirect economic impact – by engaging with external stakeholders, amongst other methods. For more information on Volvo Cars' stakeholder engagement, see page 12–13.

QUALITY MANAGEMENT

In the development of its products and services, Volvo Cars carefully analyzes different customers' needs and desires by organizing customer clinics and also by performing tests to determine how the proposed solutions will be perceived by customers. By combining these customer evaluations with its own tests, the company continuously develops its products to be the best for its customers. A Quality Core

Value Statement, according to ISO 9001, has been decided by the Executive Management Team (EMT). The Core Value Statement is a general statement from the EMT regarding how Volvo Cars shall act in terms of quality on products and services. Adherence to this policy will ensure that the company continuously strives to provide customers with premium products and services of the highest quality.

Quality Transformation

Volvo Cars is currently in the midst of a major change programme for Quality & Customer Satisfaction: "Quality Transformation". It is a company-wide initiative to improve the quality of the company's cars and services, both internally and externally. It is a change programme aiming to reach the ambition level expressed in the Core Value Statement. The aim of "Quality Transformation" is to reach Excellence in Customer Satisfaction by:

- Having customer satisfaction rooted in all decision-making processes
- Establishing effective and manageable quality structures and processes
- Increasing customer satisfaction awareness in co-workers' everyday work.



The objective is both very simple and very difficult: Volvo Cars shall achieve top-level customer satisfaction in products and services.

In 2013, Volvo Cars delivered the highest built quality cars (no technical faults and working system functions) in the history of the company. Consequently, the results in warranty repairs, base warranty and warranty spend per unit show a positive decline. Volvo Cars' supplier quality governance also showed significant improvements. The company's problem resolution lead time was also significantly reduced in 2013.

CUSTOMER SATISFACTION

Volvo Cars aims to reach excellence in customer satisfaction as defined by the company's holistic view on customer experience. Volvo Cars' overall customer satisfaction is measured through product satisfaction, product quality and sales and service satisfaction.

Volvo Cars monitors customers' feedback through surveys, media, feedback from dealers, and, most importantly, by holding dialogues with customers. Every year, Volvo Cars engages an independent service provider to conduct workshops and seminars on customer experiences, feedback and improvements. In 2013, Volvo Cars further developed its global approach for customer feedback with the purpose of enhancing customer satisfaction.

Volvo Cars' customers rank how satisfied they are with areas such as interior and exterior design, comfort and understanding of

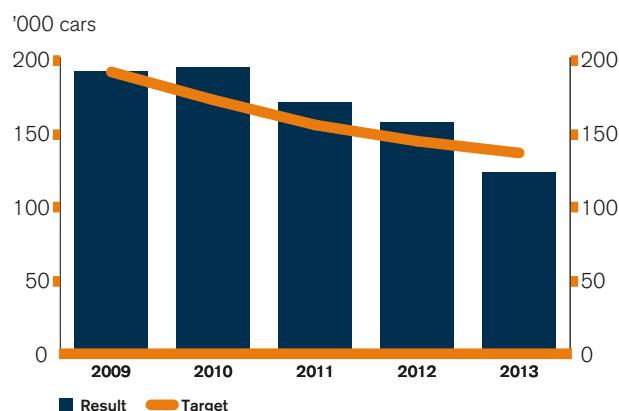
the car's various systems. In 2013, Volvo Cars focused strongly on vehicle attributes & Difficult To Use (DTU) issues in its customer feedback methodologies. The company conducted customer clinics for this purpose, and plans to hold more in 2014. Volvo Cars has also established a structure to support Volvo Cars' Designed Around You ambition through customer focus groups.

Volvo Cars' customer feedback is vital to improve the company's products. By incorporating customer feedback and new technology, in February 2013, Volvo Cars relaunched the new Volvo S60, V60/V60 Plug-in Hybrid, XC60, V70, XC70, and S80. The new Volvo design has significant interior and exterior upgrades, focusing on quality and attention to detail. In 2013, Volvo Cars also introduced new products based on the Drive-E Powertrain as a result of customer demands for fuel efficiency.

SALES AND SERVICE SATISFACTION

In 2013, Volvo Cars further refined the set of tools to support and drive improvement on sales and service at dealerships. The performance is measured by the question whether Volvo Cars' customers would recommend the buying process and their service experience at the dealerships. In order to reach its targets, the company continues to roll out infrastructure and pursue efforts in coaching dealerships on retailer performance.

WARRANTY CLAIMS^{1,2}



¹⁾ Warranty targets and performance: Repairs/1000 cars, 3 months in service in all cars and all markets.

²⁾ In 2013, Volvo Cars exceeded targets by receiving 13,000 less warranty claims.



MANAGING ENVIRONMENTAL PERFORMANCE

Volvo Cars acknowledges the enormous impact that climate change has on nature, on people and, of course, on its own business. A large portion of global anthropogenic greenhouse gas emissions come from transport. About half of these are from road transport. To be environmentally sustainable, the vehicles of the future will have to be very efficient and capable of running on renewable energy. Responding to the challenges of climate change is fundamental for Volvo Cars. The issue is given highest priority and is addressed at the company's senior governance level; it is also a major focus of the research and development work carried out by Volvo Cars. Reducing energy consumption and the dependence on fossil fuels is critical to the survival of Volvo Cars as a company.

Increased awareness and concern among consumers about human-induced climate change, combined with rising fuel prices, have led to greater consumer interest in more fuel-efficient vehicles. Increased demands are also being made by decision-makers, with the EU fleet average regulations limiting emissions of new cars sold to no more than 130 g CO₂/km from 2015, with phase-in requirements already in effect in 2012.

Limiting CO₂ emissions and curbing climate change is a tough challenge. However, Volvo Cars is determined to meet this challenge and the company also expects other key players to contribute. Curbing climate change and making the best possible use of the Earth's resources will require innovative cooperation between all stakeholders – nationally and internationally. Climate change therefore poses a

major challenge but also a great opportunity for technical development. Volvo Cars has a long tradition of developing systems and functions for cars that have benefited society in general. The Lambda sensor (a three-way catalytic converter) and the three-point safety belt are Volvo Cars inventions that have become standard in cars worldwide. The company is engaged in developing leading innovations with regard to energy efficiency, with the aim that such innovations will become new standards.

Volvo Cars' environmental strategy encompasses the car's environmental impact throughout its life cycle – from development, use and service to recycling when the car is scrapped. The greatest focus is on the actual use of the car because this affects the environment the most. Life-cycle assessment revealed that the majority of the total environmental impact of Volvo products is generated during their useful life, as distinct from manufacturing and disposal activities. At this stage of the life cycle, the type of engine and transmission technology used, the type and amount of fuel required, and the way in which the vehicle is driven and maintained are critical elements in determining the extent of the impacts. A particularly significant factor is fuel consumption. For this reason alternative fuels and powertrains are a high priority for research within Volvo Cars. Although the company's environmental improvement efforts to reduce climate impact focus mainly on vehicle development, they also include the environmental effects of all production facilities and logistics flows.



ENVIRONMENTAL HERITAGE

Dating from the early 1970s, Volvo Cars' commitment to the environment covers the entire life cycle of the car, from design, engineering and production to useful life, service and recycling. Efficient energy and resource utilization and reduced emissions have always

been in focus, as is an allergy-friendly in-car environment. The following timeline shows some examples of how Volvo Cars has been working with the environment throughout the years.

- 1945** Volvo introduces remanufactured spare parts - an exchange system still in use
- 1972** UN Global conference on the environment in Stockholm: Volvo raises the critical role of the car in society
- 1976** Three-way catalytic converter with oxygen sensor (Lambdasond®) removes up to 90% of noxious exhaust fumes - first on market
- 1982** Torslunda plant begins to use waste heat from local oil refinery
- 1987** Torslunda water treatment plant removes 90% of harmful effluents
- 1989** Volvo demonstrates alcohol power technology: cleanest car tested to date
- 1989** Introduction of internal environmental audits
- 1989** Plastics in Volvo cars marked to facilitate recycling
- 1990** First award of Volvo Environment Prize
- 1991** Volvo Cars first to introduce car free of ozone-depleting chlorofluorocarbons (CFCs)
- 1991** Paintshop at Torslunda plant is the world's cleanest
- 1992** Asbestos eliminated from car production
- 1992** Volvo Environmental Concept Car (ECC)
- 1993** Chlorofluorocarbons (CFCs) no longer used in climate systems of series-produced Volvo cars
- 1994** ECRIS, a new research facility for environmentally optimised dismantling
- 1995** Volvo Bi-Fuel, Volvo Cars' first generation of methane-driven cars
- 1995** Introduction of standards to improve dealers' environmental activities
- 1995** Launch of Car & Eco Care, the Volvo Cars range of environmentally labelled car care products
- 1996** Introduction of environmental standards for suppliers
- 1998** Introduction of PremAir® - a radiator coating designed to convert harmful ground-level ozone into pure oxygen
- 1998** Volvo Cars first carmaker to publish environmental product information (EPI) for cars (originally named EPD)
- 1999** IAQS (Interior Air Quality System) introduced for cleaner cabin air
- 2000** Tailpipe emission control technology from Volvo Cars' ULEV engines becomes available globally
- 2001** New generation of Bi-Fuel cars
- 2002** Volvo Adventure environmental education programme for young people (formerly Volvo Young Environmentalist Award)
- 2002** New Volvo cars designed for 85% recyclability
- 2003** Volvo Cars achieves global ISO 14001 certification
- 2004** Introduction of particulate filter for diesel engines
- 2004** Volvo S40 1.6D is first Volvo car with fuel consumption less than 5 l/100 km
- 2005** Bioethanol (E85) powered Volvo S40/V50 Flexifuel launched in Sweden
- 2007** IAQS & Automatic ventilation recommended by Swedish Asthma & Allergy Association
- 2007** Volvo Flexifuel offer broadened - 3 models and 5 engines introduced
- 2007** Volvo ReCharge Concept - a plug-in hybrid with 100 km battery range - introduced
- 2008** Volvo uses only green electricity (hydropower) in European manufacturing units
- 2008** Powershift technology introduced - automatic transmission with 8% lower fuel consumption compared to conventional automatic transmissions. Available in C30/C70/S40/V50
- 2008** Volvo C30/S40/V50 1.6D DRIVe introduced - with CO₂ emissions of 115 (C30) and 118 g/km (S40 and V50)
- 2009** Joint venture between Volvo Cars and energy supplier Vattenfall to develop plug-in hybrid cars and energy infrastructure
- 2010** New environment strategy including both operations and product
- 2011** Decrease of energy consumption per vehicle by almost 20% compared to prior year
- 2011** Analysis of operational fresh water footprint performed for all production sites
- 2012** V60 Plug-in Hybrid (world's first diesel-powered plug-in hybrid) reached the first customers
- 2012** V40 launched with CO₂ emissions down at 88 g/km
- 2013** The new, high-efficient four-cylinder engine family Drive-E Powertrains launched
- 2013** First demo fleet of the C30 electric generation II with a new electric engine (in cooperation with Siemens)

ENVIRONMENTAL STRATEGY

The company's Environmental Strategy is based on a holistic approach; environmental considerations form part of all operations within the company. The Environmental Strategy is not only an integrated part of the overall Business Strategy – it is also included in all projects and daily operations. The Environmental Strategy is updated annually according to current business development and global challenges in order to achieve a competitive environmental performance (see below). The different strategy areas are:

Products:

- Energy efficiency including electrification
- Emissions
- Alternative fuels
- Interior environment
- Materials and recycling

Operations:

- Zero environmental accidents
- Water conservation and water emission performance (water footprint)
- Energy efficiency and climate-neutral operations
- Emissions to air
- Total waste management
- Soil and ground water management
- Sustainable transport solutions

The Environmental Strategy for Operations has been implemented as targets and activities within different units, such as Purchasing & Manufacturing, Research & Development and the Aftermarket organization. By doing so Volvo Cars aims to increase efficiency and to encourage the whole company to improve the environmental performance.

Volvo Cars continuously follows up environmental objectives and action plans in its operations. Refined targets were set in 2013 within the areas listed above. The status of these targets will be reported in 2014. As part of the strengthened environmental target-setting process throughout the company, Volvo Cars continuously reports its performance against its environmental strategy to the Executive Management Team.

CORE VALUE STATEMENT – ENVIRONMENT

In addition to the Environmental Strategy, Volvo Cars also has a Core Value Statement – Environment (previously called Environmental Policy). To read the Core Value Statement, see: www.volvcars.com.

ENVIRONMENTAL GOVERNANCE

The Senior Vice President Purchasing & Manufacturing is the representative for environmental matters within the Executive Management Team. Volvo Cars Environmental Committee, a cross-functional committee, manages the Environmental Strategy and

environmental targets related to operations. Common environmental issues covering product, operations and communication are handled within the Committee, such as environmental strategy and targets, audits, education and reports. The Environmental Committee reports to the Executive Management Team.

Product-related issues are governed by the Product Board, headed by the Senior Vice President Product Strategy and Vehicle Line Management. The Attribute Managers at Research & Development have the operational responsibility. The Director of Environmental Protection monitors compliance by Volvo Cars' plants worldwide with applicable environmental legislation. Volvo Cars works proactively to meet upcoming legislation and also to shape it as a part of a review process from policy-makers.

ENVIRONMENTAL TRAINING, AWARENESS RAISING AND COMMUNICATION

Volvo Cars strives to make environmental issues a part of all relevant training and educational initiatives within the company. For example, a specific part of the competence development programme (followed by all employees who are training to become production team leaders) relates to environmental issues. The expert competence within specific environmental issues is continuously kept up to date. Volvo Cars also cooperates with the secondary school in Gothenburg to develop environmental education for all employees.

In June 2013, Volvo Cars organized a Volvo Environment Day together with Volvo Group. The aim was to honour the company's environmental heritage and to inspire the employees, thereby strengthening Environment as a core value. The event was documented and is used globally to inspire employees who could not attend.

Volvo Cars communicates the environmental performance of its products and operations continuously through press releases and other communication material available on its website. At the manufacturing site at Torslanda, Sweden, an exhibition about Volvo Cars' commitments to environment and safety is open to the public.



ENVIRONMENTAL PERFORMANCE OF PRODUCTS

VOLVO CARS BELIEVES THE WAY TO GO IS ELECTRIFICATION - FROM HYBRIDS TO ALL-ELECTRIC VEHICLES.

Volvo Cars' approach towards improving the environmental performance of cars is focused on six themes:

1. Environmental innovation
2. Reducing the CO₂ emissions of cars
3. Increasing the use of renewable fuels in cars
4. Weight reduction, management of substances and materials
5. Interior environment – Clean Compartment
6. Recycling and remanufacturing.

INNOVATION WITH A POSITIVE IMPACT ON THE ENVIRONMENT

Volvo Cars works continuously to improve the environmental performance of its products. Volvo Cars believes the way to go is electrification. In parallel with the focus on electrification, the company continues to reduce emissions and fuel consumption and increase the use of renewable fuels in conventional cars.

Fuel consumption is an important issue to Volvo Cars customers all around the world, not only from an environmental point of view but also from an economic point of view. The company therefore works hard to improve fuel efficiency and provide alternative solutions. There are two main areas when discussing fuel efficiency. The first one consists of the hard, technical solutions, such as improving aerodynamics, rolling resistance, engine efficiency, gearing, gearbox losses, etc. This is traditional engineering territory and Volvo Cars works continuously in this area to make the cars better. The second one is 'soft' and has to do with how a car is driven: the speed you drive at, what roads you take, when you choose to drive and how you plan your driving. To help consumers drive in a more efficient manner, the car centre display provides information on eco-driving. At the same time Volvo Cars makes cars smarter, so that in the future they will be able to make these decisions for you.

In 2013 and before, a number of innovations were launched that have a positive impact on the environmental performance of Volvo Cars' products, as outlined below.

Launch of Drive-E Powertrains

Volvo Cars is the first automotive company to launch a ground-breaking premium engine range consisting solely of four-cylinder petrol and diesel engines. The new Drive-E Powertrains (formerly known as VEA, Volvo Engine Architecture) with world-first i-ART technology were launched in autumn 2013. The new technology helps to cut fuel consumption in the new diesel engines. The sophisticated Drive-E technologies give the customer high performance, improved fuel economy, considerably lower emissions and a powerful sound character. This new four-cylinder engine range offers higher performance than today's six-cylinder units and lower fuel consumption than the current four-cylinder generation. There is a massive weight and size reduction for the same power compared to any six-cylinder engine. Fuel economy savings are anything from 10 to 30 per cent, depending on which engine it is compared with.

Doubled production of the innovative V60 Plug-in Hybrid

The Volvo V60 Plug-in Hybrid is the world's first diesel-powered plug-in hybrid. Since 2012, customers have been able to buy the Hybrid, which can be recharged via a regular household electric socket. In 2013, Volvo Cars had to ramp up production of the Volvo V60 Plug-in Hybrid by 90 per cent, just to keep up with the increased demand, especially in Holland, Belgium and Italy.

The driver of the V60 Plug-in Hybrid selects the required driving mode via three buttons in the dashboard that give the car three entirely different drive modes: Pure, Hybrid or Power. In the default hybrid mode, the carbon dioxide emissions are 48 g/km. This corresponds to fuel consumption of just 1.8 l/100 km (NEDC certification procedure for hybrids). The Volvo V60 Plug-in Hybrid is the synthesis of close cooperation between Volvo Car Corporation and the Swedish electricity supplier Vattenfall. The two companies financed the development project jointly.

Pure electric cars – C30 Electric

Electrification represents an important and promising technological step on the way to creating cars with a reduced environmental impact. Electric vehicles have many benefits for the local environment – blissfully silent and with no tailpipe exhausts. Electric cars are zero carbon emissions vehicles during use. Any emissions created are indirect (coming from the original source of the electricity). Given that the batteries of electric cars are charged using the local power grid, electric cars are as clean as that grid. Further emissions are created during production of the cars and during their end-of-life processes.

In 2011, Volvo Cars started low-scale production of the Volvo C30 Electric. The fleet of 250 cars is leased to customers in selected European countries and they are also currently operating in demonstration programmes in China, Sweden, Belgium, France, Holland and other European countries. The Volvo C30 Electric has a 24 kWh battery that is recharged from a regular household power socket. A full recharge takes 8 to 10 hours and the operating range is up to 150 kilometres per full charge. In 2013, the first demo fleet of the C30 electric generation II with a new electric engine was launched (in cooperation with Siemens, see below).

New experimental electrification technologies

Throughout 2013, Volvo Cars worked on a number of experiments in the field of electrification, as part of the company's constant drive to further develop its electrification technologies. One example is Volvo Cars' participation in an advanced research project studying the possibilities of inductive, cordless charging for electric vehicles. The results, revealed in October, showed that this technology for transferring energy via an electromagnetic field has a promising future. A Volvo C30 Electric testcar could be fully charged in around 2.5 hours, by placing the car on top of an electromagnetic field in a charging base station.

In another promising project, Volvo engineers developed a revolutionary concept for lightweight structural energy storage components that could improve the energy usage of future electrified vehicles. The material, consisting of carbon fibres, nanostructured batteries and super capacitors, offers lighter energy storage that requires less space in the car, cost-effective structure options and is eco-friendly. The research project took place over 3.5 years and resulted in energy-storing car panels on a Volvo S80 experimental car.

In April 2013, Volvo Cars also revealed the results of a study into the possibilities offered by Flywheel KERS (kinetic energy recovery systems). The testing of an experimental system for kinetic energy recovery was carried out during 2012. The results show that this technology has the potential to significantly reduce fuel consumption, while also giving drivers an extra boost in terms of horsepower. Volvo Cars is now evaluating how the technology can be implemented in upcoming Volvo models.

Ongoing cooperation with Siemens on electric motors

Volvo Cars and Siemens have been working together in an electric mobility partnership since 2011. This strategic cooperation between Volvo Cars and Siemens aims to advance the technical development of the electrification of cars. The focus is on taking the joint development of electrical drive technology and power electronics from research to realization. The first product to be launched with this technology will be the new XC90 at the end of 2014. Much testing and demonstrating has been carried out in order to be confident that these systems can be integrated in Volvo cars with high safety and quality standards. In 2013 the first demo fleet of the C30 electric generation II with a new electric engine was launched. These cars have been upgraded with a new electric engine and a new inverter from Siemens, and have an extended range and better and faster charging capacity. In this fleet, Volvo Cars introduced the world's first fast-charger that operates on a three-phase supply and is small enough to be fitted in the car. A full charge takes 1.5 hours with a range of 164 km, while a 10-minute plug-in adds power for another 20 kilometres of driving. This will support the partnership's aim to develop electric cars with no compromises.



Drive Me – Self-driving cars for sustainable mobility

Volvo Cars is working towards developing autonomous driving technologies – not only for the sake of safety, but also because it has positive impacts on the environmental performance of cars. The present systems for auto braking, lane keeping aid and adaptive cruise control are examples of the first steps towards autonomous driving. The next step is technology that follows the car in front at higher speeds, allowing the driver to take their hands off the steering wheel while still surveying the drive. This in turn paves the way for the introduction of Highly Autonomous Cars that hand over responsibility to the vehicle, which handles all driving functions at the driver's discretion.

In 2013, it was announced that this sophisticated self-driving technology will be tested and evaluated in the "Drive Me" project in Gothenburg, Sweden. In 2017, real customers will join the project using self-driving Volvo cars driving on selected public roads in and around the city. This project, the only one of its kind in the world, is a partnership between Volvo Cars, the Swedish Transport Administration, the Swedish Transport Agency, Lindholmen Science Park and the City of Gothenburg. The "Drive Me" project is endorsed by the Swedish Government. The first phase of the project, the joint evaluation and development of test vehicles, started in December 2013.

Pioneering technologies involving extensive use of driver support systems will not only help Volvo Cars realize its safety vision but also bring strong societal and consumer benefits. Modern society faces extensive future challenges to improve safety, and reduce pollution and global CO₂ emissions. Impaired mobility and congestion can be added to the list of challenges. Autonomous driving can cut fuel consumption by more than 20 per cent in certain situations but it will also carry significant consumer benefits.



CO₂ EMISSIONS AND FUEL EFFICIENCY

Limiting CO₂ emissions is a challenge for all in the automotive business. Volvo Cars works hard to reduce emissions and increase fuel efficiency.

Volvo Cars' approach to reducing the CO₂ emissions of cars

Meeting the different legal requirements on CO₂ emissions in all markets is a considerable challenge from a product planning perspective. Planning the company's product range therefore involves careful analysis of the need to meet future legal regulations. This is done in combination with a thorough analysis of foreseen customer expectations on products. This is a demanding task as the automotive industry has very long lead-times, where many years pass between initial planning and the launch of a new product.

Volvo Cars does, however, see this challenge as an opportunity to offer driving pleasure with a good conscience. Volvo Cars believes that the most effective way to cut its product range's total CO₂ emissions in the short term is to reduce the fuel consumption of the diesel and petrol engines of its cars. This is because cutting the emissions of many cars sold in large volumes will have a bigger total effect and bring favourable results more quickly than making huge cuts in a small number of cars. Volvo Cars has therefore introduced a range of high-efficiency diesel models with very low CO₂ emissions. The V40 is currently the most efficient model with fuel consumption (EU combined) down to 3.4 l/100 km and CO₂ emissions at 88 g/km. The Volvo S60 and V60 have CO₂ emissions of just 103 g/km and 108 g/km respectively – corresponding to fuel consumption of 3.9 and 4.1 l/100 km respectively. Volvo Cars' efficiency work also includes improvements to the petrol engines. By optimizing the four-cylinder, 1.6-litre T3 engine (150 hp),

which is available in the Volvo V40, S60 and V60, the company has managed to bring fuel consumption down to 5.3 l/100 km in the V40. This corresponds to CO₂ emissions at 124 g/km.

These low fuel consumption and emission levels are the result of a number of technological improvements, such as:

- Reduction of the number of cylinders to four in the new Drive-E Powertrains
- Internal gearbox friction has been reduced
- The engine and gearbox software has been modified
- The start/stop system cuts off the diesel engine when the car is still rolling (below 5 km/h)
- All electrical systems have been optimized to reduce energy consumption
- The grill shutter in V40, S60 and V60 reduces fuel consumption, due to improved aerodynamic and faster warm-up of the Powertrain.

CO₂ emissions of Volvo cars

Under the EU Cars Regulation, the CO₂ EU fleet average to be achieved by all new cars is 130 g/km by 2015 and 95 g/km by 2020. The 2015 target was being phased in from 2012. On a yearly basis, car makers are given individual targets per brand, depending on the actual sales volume average mass of its fleet. If car makers do not meet the targets, they have to pay "excess emissions premiums". The CO₂ limit target for Volvo Cars for 2013 was 146 g/km. Volvo Cars' fleet average of g CO₂/km decreased from 143 g/km in the previous year to 131 g/km in 2013 (-8.4%). This is a strong improvement compared to previous years, mainly due to the introduction of the Drive-E Powertrains, and strong sales of the V40 D2 model. The average CO₂ emission in all new Volvo Cars' vehicles sold in 2013 in all markets declined by 42 per cent compared to 1995. The EU 2020 legal requirement for Volvo Cars' fleet average is projected to be 100–105 g/km, which means that further improvements have to be achieved in the next few years.

Harmful emissions other than CO₂

Euro 5 is the current regulation for harmful emissions other than CO₂ (for example NOx, HC, particulates) for new vehicles sold in EU member states. The regulation aims to limit pollution caused by road vehicles. In 2014, new emission regulations (Euro 6) will be introduced. Euro 6 will set even lower emission limits than Euro 5. For example, all vehicles equipped with a diesel engine will be required to substantially reduce their emissions of nitrogen oxides as soon as the Euro 6 standard enters

into force. The Euro 6 standard will come into force on 1 September 2014 for the approval of new vehicles, and from 1 September 2015 for all registrations. In 2013, the share of Volvo cars sold complying with the Euro 6 or better was already 22 per cent. (The numbers of cars sold that already comply with Euro 6 are not included in the calculations for Euro 5 compliance any longer; this is why this figure decreased compared to 2012.)

RENEWABLE FUELS

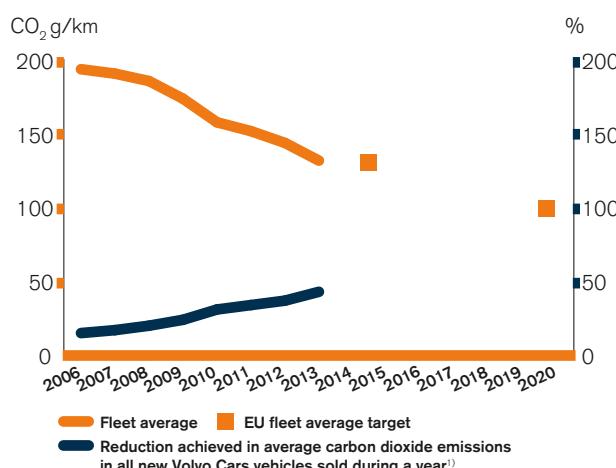
Alternative fuels, i.e. biofuels, are foreseen to be a necessary part of the global renewable energy strategy and an important means to reduce CO₂ emissions. Volvo Cars believes that biofuels offer the opportunity to significantly reduce CO₂ emissions in an efficient way, depending on how the fuels are produced. The company supports clear and harmonized fuel quality standards in order to ensure car and engine compatibility with increase in low blending level of biofuels. The company needs to ensure affordability for consumers as well as feasibility for the company; the infrastructural capacity is also crucial in this regard. Europe's bioethanol refuelling infrastructure is expanding, partly as a result of constructive cooperation between the car industry and several EU countries.

Volvo Cars offers models that are powered by petrol, diesel, ethanol and natural gas/biogas and offers one of the car world's broadest ranges of Flexifuel models. What is more, on several European markets there are aftermarket-converted gas models that can run on up to five fuels – natural gas, biogas, hythane (biomethane with low-blend hydrogen), E85 and petrol. Biogas in particular has excellent environmental properties. Within the next few years it will also be possible to use second-generation biofuels such as synthetic diesel in Volvo's cars. Filling up with E85 instead of petrol can significantly reduce a car's fossil carbon dioxide emissions.

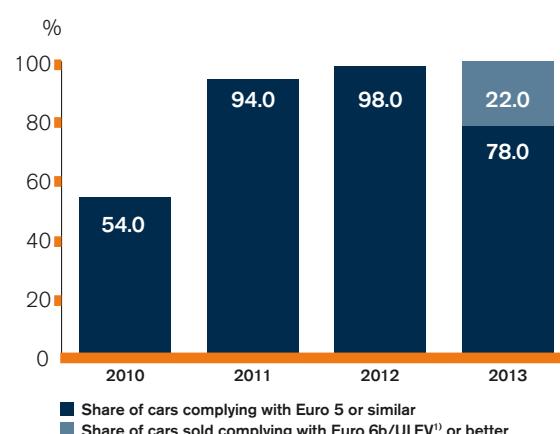
MATERIALS

Volvo Cars' material usage is determined by the design requirements for each and every part in its cars. The table on the following page shows the breakdown of 5 of 12 car models. These 5 cars were selected to represent the company's entire car fleet and refer to standardized vehicle models. The breakdowns can vary slightly depending upon customized features. Amongst other goals, it is Volvo Cars' aim to unify the material breakdowns of its car models in order to allow for comparison within its portfolio. Breakdowns for the additional car models will be calculated in 2014.

FLEET AVERAGE



COMPLIANCE WITH EU REGULATIONS FOR HARMFUL EMISSIONS



¹¹ EU 15 monitored under the ACEA voluntary agreement to achieve a 25% reduction, industry wide, from 1995 level by 2008.

¹¹ ULEV stands for "Ultra-Low Emission Vehicle", and is an environmental classification in force in California that has set even higher demands for lower emissions than Euro 5 does.

Another goal in Volvo Cars' work with product material is to reduce the total vehicle weight, because this lowers fuel consumption and leads to a reduction of the overall CO₂ emissions when the vehicle is used. Increased use of lightweight metals and composite materials is one approach to achieving this goal. The all new XC90 model, for example, will be approximately 100 kg lighter with the new SPA (Scalable Product Architecture) architecture.

Restricted substances and rare materials

Volvo Cars uses the global Restricted Substance Management Standard (RSMS) to prohibit substances toxic to human health or the environment. In order to make sure that the company complies with legal requirements it works with a material database called IMDS. Volvo Cars' suppliers report the material content of all parts in detailed data sheets,

which are uploaded to IMDS by suppliers and then reviewed by Volvo Cars. IMDS enables the company to track a certain substance.

This way, Volvo Cars managed to phase out Decabromodiphenyloxide (Deca-BDE), which is bioaccumulative, persistent and toxic to both humans and the environment. Volvo Cars is ahead of legal requirements with this phase-out, which is required no later than 2015. Volvo Cars also used IMDS when analyzing where in the car models rare earth minerals can be found. The analysis was carried out in collaboration with Chalmers University of Technology. The demand and therefore the price for rare earth minerals is rapidly increasing. The project revealed that due to electrification in Volvo's cars, the use of such minerals is increasing. The analysis marks the beginning of a new approach – in the future rare earth minerals will be reused.

INTERIOR ENVIRONMENT:

AIR QUALITY AND CONTACT ALLERGIES

Volvo Cars' work with the interior environment can be divided into two main areas: air quality and contact allergies. The main objective is to make the environment inside the cabin cleaner than the air outside. There are no societal standards for in-car air, so Volvo Cars created its own in-car air quality requirements that are used when developing new Volvo models. This includes the air entering via the climate system as well as the emissions from the materials inside the cabin. Volvo Cars has developed two systems, Interior Air Quality System (IAQS) and Clean Zone Interior Package (CZIP), to cover this area.

- IAQS monitors the quality of the incoming air and automatically closes the air vents if the levels of harmful substances become too high. A multi-filter removes particulates and pollen but also uses a layer of active charcoal to remove odours and ground-level ozone. The system automatically closes the air vents when, for example, driving through a tunnel.
- The CZIP technology ensures that the air in the car is automatically vented out within one minute from the time the car is unlocked with the remote control.

A second aim is to improve the in-car environment in order to ensure that the materials used inside the vehicles are not harmful to human health or the environment, as well as to avoid using asthma-inducing and allergenic substances in car interiors. Volvo Cars performs careful measurements during the design phase of car models and in the first few years of the vehicles' life. An example of how Volvo Cars improved the in-car environment of its cars is the fact that all textiles fulfil stringent requirements, making sure that the materials do not include harmful substances. Metallic components, such as handles, bottoms and keys are tested for nickel leakage.

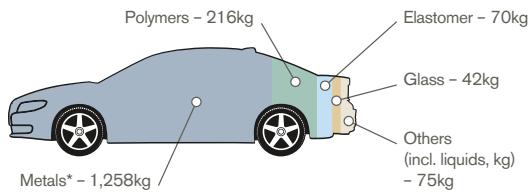
Volvo Cars' "Clean Compartment" work is an example of efforts in line with the precautionary principle. This work reduces health risks for passengers with asthma or allergies by replacing interior trim with materials exceeding the requirements of current legislation. Volvo Cars measures its performance against the World Health Organization's (WHO) recommended levels. The company fulfils the WHO Air Quality Guideline, relating to NO₂, particulate matter, CO, benzene, ozone and SO₂.

RECYCLING

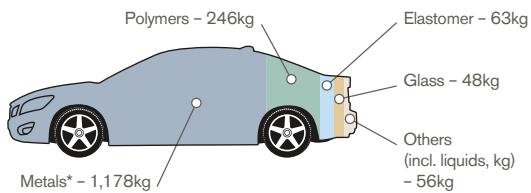
The IMDS database also makes it possible to calculate how much of the total weight of the car components consist of fluids, metals, and other materials. This database enables Volvo Cars to analyze which proportion of a car is recyclable. The long-term strategy for reducing material intensity within Volvo Cars' operations is to increase the amount of sustainable material; in other words renewable and recycled content. Recycled input materials are divided into metallic and non-metallic materials. The current Volvo models consist of 10 to 15 kg recycled non-

TOTAL MATERIAL BREAKDOWN

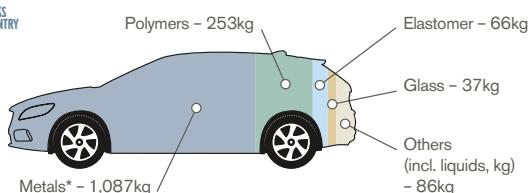
S80



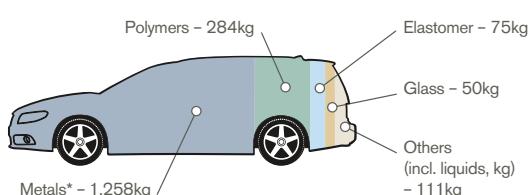
S60



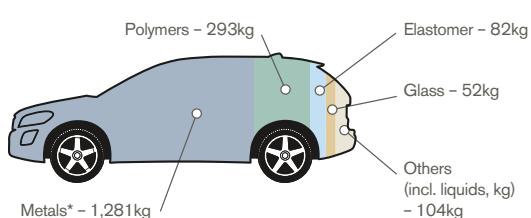
V40 CROSS COUNTRY



V70



XC60



*Metals breakdown

	S80	S60	V40 CROSS COUNTRY	V70	XC60
Ferrous metal (kg)	1,040	955	855	1,029	1,057
Magnesium (kg)	7	11	3	7	7
Aluminium (kg)	167	165	179	174	168
Copper (kg)	27	23	25	24	24

metallic materials (such as post-industrial plastics in wheel arch liners, the engine cover and sound absorbers), depending on the specification of the car.

Volvo Cars has no direct influence on the reclaiming and scrapping process of cars in the end-of-use phase. The percentage of Volvo cars sold that are reclaimed is currently not known. However, in compliance with EC Directive 2005/64, metals, oils, fluids, rubber and certain plastics corresponding to at least 95 per cent of the weight of a Volvo car can be recovered and 85 per cent can be recycled. Volvo calculates the recyclability rate and the recoverability rate of its cars according to the ISO 22628:2002 method. Metallic materials are reused, but the exact amount is not measured due to the complexity of the process.

REMANUFACTURING

Around 15 per cent of Volvo Cars' spare parts sales consist of parts included in the Exchange System. Dealers connected to the Exchange System have a return obligation for replaced parts included in the Exchange product range. The parts that meet the requirements are then remanufactured by external suppliers according to Volvo Cars' original specifications. After the industrial remanufacturing process the parts are handled as a regular spare part and distributed in the ordinary

logistic flow. Today, Volvo Cars Exchange System contains of an even larger number of components – it includes everything from gearboxes to injectors and electronic components.

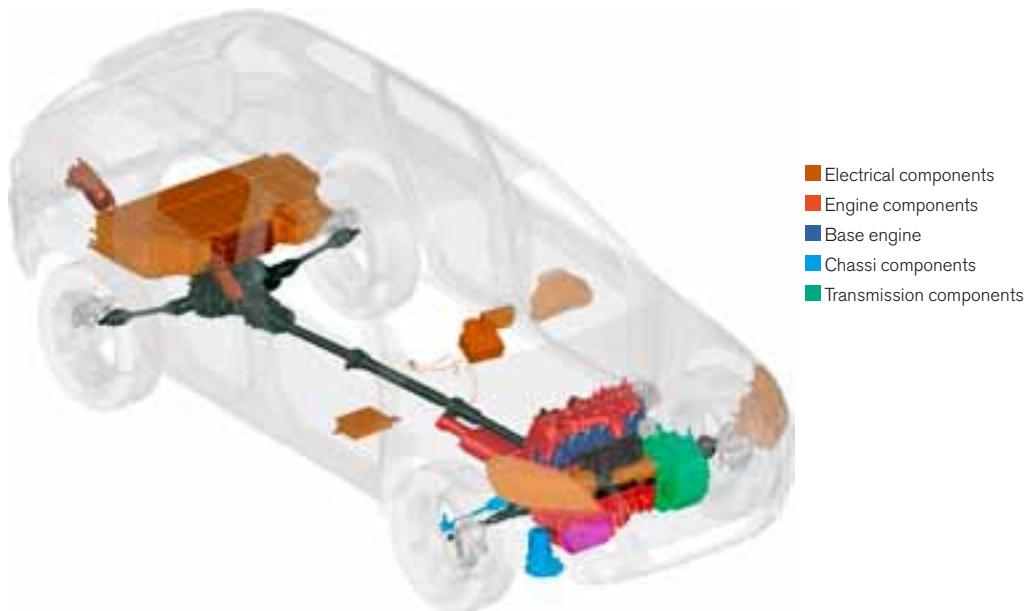
Remanufactured spare parts are a cost-efficient and environmentally friendly alternative to newly manufactured parts. The remanufactured spare parts fulfil the same quality standards, specifications and warranty as newly made components.

The remanufactured product line is an environmentally good choice because a remanufactured part requires up to 85 per cent less raw material and 80 per cent less energy compared with a newly made product. In 2013, Volvo Cars saved approximately 350 tonnes of aluminium and 950 tonnes of steel, which equals to the CO₂ emissions of driving 1,350 times around the world in a V40 D2.

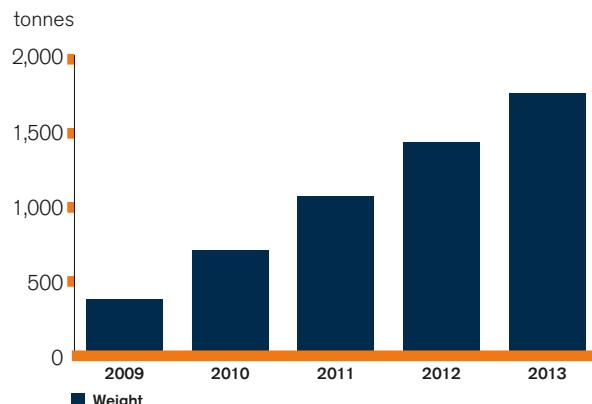
Since 2009 the number of remanufactured parts sold has increased by 21 per cent (see graph below). One of the reasons for the strong increase between 2011 and 2012 was the addition of new product areas for the new V60 Hybrid model to the Exchange System.

Volvo Cars strives to further increase the product areas included in the Exchange System and the proportion of remanufactured parts in the future.

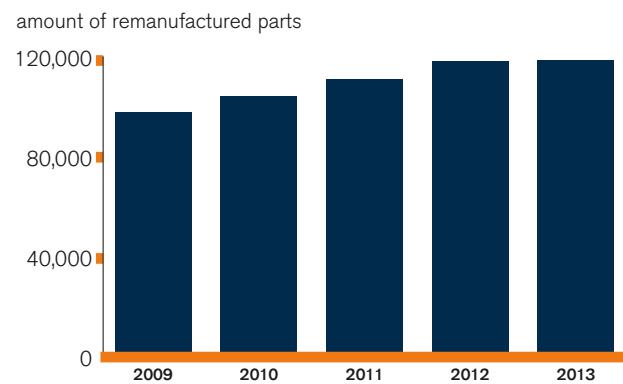
REMANUFACTURED COMPONENTS



ACCUMULATED ALUMINIUM SAVINGS



REMANUFACTURING DEVELOPMENT



ENVIRONMENTAL PERFORMANCE IN OPERATIONS

OUR PRODUCTION PLANTS ARE MORE THAN FACTORIES; THEY ARE PROOF POINTS TO OUR SOCIAL AND ENVIRONMENTAL COMMITMENTS.

Volvo Cars strives for continuous improvements in all its operations. The company strongly believes that environment needs to be a part of the already existing efficiency work within the organization. Environmental issues are handled separately by a central organization; they are a natural part of our operations that is integrated in the day-to-day work. Some of our achievements are highlighted in the map below.

ISO 14001 AND BEYOND

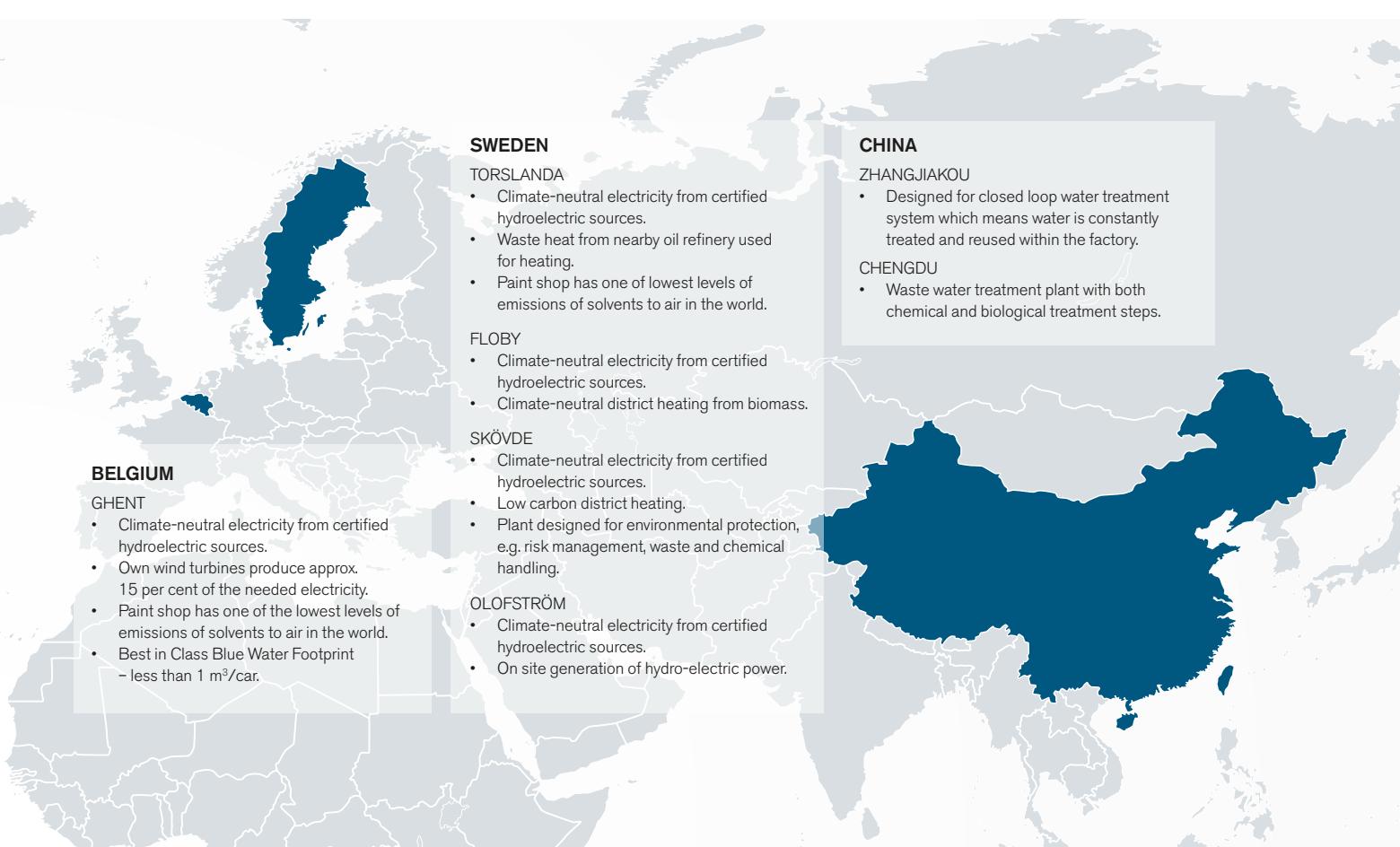
Volvo Cars has been ISO 14001 certified since the early 1990s and the environmental management system is a part of the overall management system within Volvo Cars. Every year an external auditor performs audits at Volvo Cars to ensure that the standards are being met and opportunities for improvement are being identified. Remediation plans are created for all audit findings, but major audit findings (if any) get the highest priority. In 2013, the company started cooperation with a new third party auditor company to improve and strengthen its audit processes even further. In 2013, Volvo Cars also worked on implementing Volvo Cars management systems in its China Operations – in order to set the same standard as within the rest of the company. The Chinese plants will be included in next year's Sustainability Report. Among other measures, the company conducted gap analyses in its

China Operations to prepare these locations for ISO 14001 certification. The target is to reach certification at the beginning of 2015.

The company also has a programme for internal audits concerning the environment, the operational management system and legal compliance as well as handling of dangerous goods. The aim of this programme is to monitor the company's operations and thus find scope for improvement. Volvo Cars works intensively to improve the effectiveness of its operations. In 2013, a focus area of the internal audits was, for example, environment in the early stages of projects. Volvo Cars has established a process that clearly incorporates the environment in the start-up phase of a project. In the very early phases of a project, standardized tools are used to secure environmental performance and compliance throughout the project.

TOWARDS CLIMATE-NEUTRAL PRODUCTION

Volvo Cars has the overall target to continuously reduce its total energy consumption and aims ultimately to be climate-neutral. At its headquarters, Volvo Cars has dedicated employees working solely on energy and climate change related issues and at each site one person has been given responsibility for energy issues. In addition, full-time employees are working with energy optimization to improve efficiency even more at all operational sites.



Volvo Cars has performed an inventory of energy use in most of its buildings and operational processes. This is an important step towards reducing energy consumption. Remedial programmes have been performed at several sites and information campaigns have been held to educate employees on the importance of energy saving and efficiency. Checklists are to be used at team level, clarifying when and how to turn the various pieces of equipment on and off. Smaller activities such as these complement larger energy-saving projects. During 2013, Volvo Cars for example replaced wet coolers with dry coolers, thereby saving a significant amount of energy as well as chemicals.

During 2013, Volvo Cars' total energy consumption from direct and indirect energy use decreased, while the number of produced units remained at the same level. As the plants in Chengdu and Zhangjiakou were not operational before late 2013, numbers for these plants will be included in next year's report.

Direct energy consumption

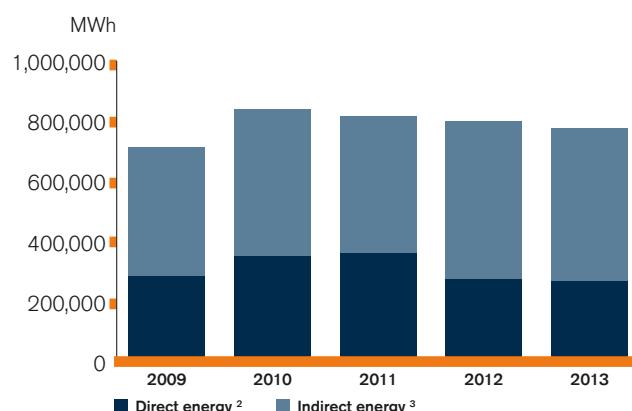
In its direct energy consumption, Volvo Cars uses energy in the form of natural gas, LPG (liquefied petroleum gas), diesel oil and petrol for direct production purposes. This energy is used to heat ovens and other

equipment. Volvo Cars aims for a transition from LPG and natural gas to biogas to take place as soon as possible, but at present there are no suppliers that can deliver the quantities the company needs.

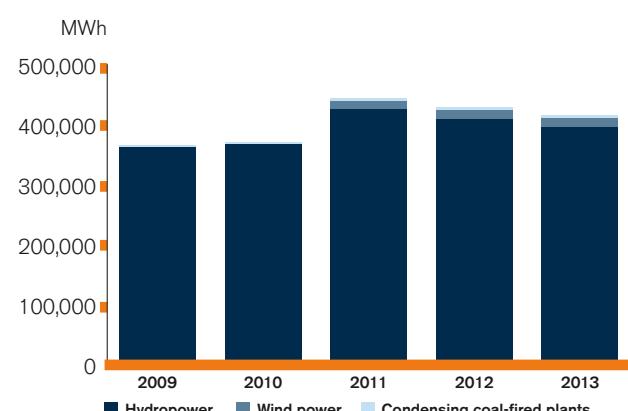
Indirect energy consumption

Volvo Cars' indirect energy consumption is through purchased electricity and district heating for its facilities. There are various ways of describing the primary energy source of the electricity purchased in a given country during a certain period. The European electricity grid is interconnected and all electric power generated is delivered to the same network. Therefore, it is impossible to say where an individual kilowatt-hour is generated, but by demanding certified renewable energy from electricity providers, the company encourages the move towards greater renewable energy production. All the electricity that Volvo Cars buys and uses in Europe is certified hydro-powered electricity and wind power. In Malaysia, it is assumed that 100% of the electricity is generated from coal. These assumptions provide a sufficiently (although not totally) accurate reflection of how the electricity used is generated. In China, the supply of renewable energy is still under development, but it is expected to grow strongly in the years to come. Volvo Cars follows this

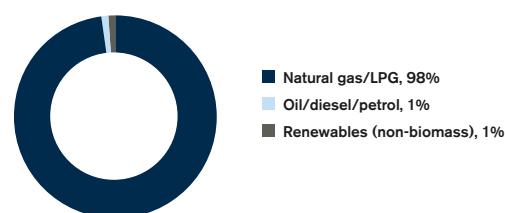
TOTAL ENERGY CONSUMPTION¹⁾



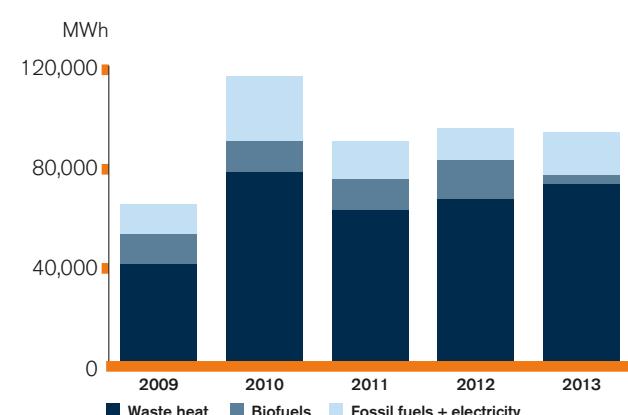
INDIRECT ENERGY CONSUMPTION: ELECTRICITY BY SOURCE¹⁾



DIRECT ENERGY CONSUMPTION BY SOURCE¹⁾



INDIRECT ENERGY CONSUMPTION: DISTRICT HEATING BY SOURCE¹⁾



¹⁾ The Volvo Cars facilities included in the data are Volvo Cars Torslanda Plant (Gothenburg, Sweden), Volvo Cars Ghent Plant (Ghent, Belgium), Kuala Lumpur (Malaysia), Volvo Cars Skövde – Engines (Skövde, Sweden), Volvo Cars Floby (Floby, Sweden) and Volvo Cars Olofström – Body Components (Olofström, Sweden).

²⁾ Energy produced for own consumption.

³⁾ Purchased electricity and heating.

development closely and aims to contribute to the shift from traditional means of energy to renewable sources of energy.

In 2013, Volvo Cars' consumption of purchased electricity decreased, as shown in the graph above.

Via district heating, Volvo Cars' indirect energy consumption for heating originates from waste-to-energy, waste-heat-recovery and renewable bioenergy sources. Volvo Cars' energy consumption of district heating decreased slightly in 2013 compared to 2012 due to energy savings and local weather fluctuations. Due to the increased utilization of Skövde's municipality waste incinerator, the proportion of used biofuels decreased significantly in 2013 compared to 2012.

MANAGING EMISSIONS TO AIR

Volvo Cars' plants produce direct and indirect emissions of several types. Volvo Cars actively manages and reduces its VOC and CO₂ emissions as well as other greenhouse gas emissions.

CO₂ emissions: In order to reduce CO₂ emissions from operations Volvo Cars continues to manage the consumption of energy as described in the section "Towards climate-neutral production", on page 26–27.

Volatile Organic Compounds (VOC): VOC emissions are caused mainly by painting operations. Since it was commissioned in 1991, the Torslunda paint shop has proved to be one of the very best in the world in terms of minimizing the quantity of hydrocarbons emitted per unit of painted surface. In 2007, the European Union imposed a limit of 60 g/m² of painted surface on hydrocarbon emissions from existing automotive paint shops. Volvo Cars' paint shop in Torslunda emits approximately 13 g of hydrocarbons per m² of painted surface, and the Ghent paint shop approximately 15 g per m² of painted surface. Also the Chengdu plant is designed to perform better than the average car factory in Europe. The paint operations in the Chengdu plant are based on the use of mainly water borne paints and the state-of-the-art paint application equipment used in Torslunda and Ghent. Here as well, the Chengdu plant exceeds legal requirements in China. Volvo Cars will continue its efforts to further reduce emissions. The ambition is that the other paint shops will also become best in class.

SOx and NOx: Volvo Cars' plants produce emissions of sulphur oxides (SOx) and nitrogen oxides (NOx). Emissions of sulphur oxides have been reduced significantly over a long period, mainly as a result of the company's change 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. Emissions of nitrogen oxides are mainly caused by combustion temperature. High combustion temperatures generally yield low emissions of CO and VOC, although the opposite is true of nitrogen oxides. This is the situation in the paint shop in order to reduce the level of CO and VOC. All other combustions are at boiler houses and they are low-NOx combustions.

During 2013, Volvo Cars' total emissions of greenhouse gases decreased compared with the previous year. Volvo Cars calculates the CO₂ emissions according to the EUETS system. The total amount of CO₂ equivalents is currently not calculated.

Volvo Cars does not use chlorofluorocarbons (CFCs) in any application, although HCFCs are used to some extent in air conditioning systems. Since 2002, no new systems have been filled with HCFCs.

STOCKS OF OZONE-DEPLETING SUBSTANCES IN EU

	2009	2010	2011	2012	2013
Installed amount					
HCFC (kg)	703	630	486	432	358

EMISSIONS OF SOx, NOx AND VOC

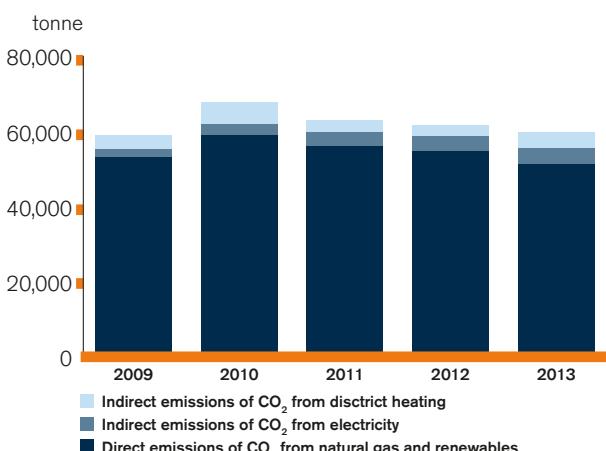
	2009	2010	2011	2012	2013
Emissions of SOx (tonne) ¹⁾	<1	<1	<1	<1	<1
Emissions of NOx (tonne) ²⁾	71	85	80	72	76
Emissions of VOC (tonne) ³⁾	527	738	828	796	724

¹⁾ SOx emissions are calculated on the basis of the sulphur content in the fuel.

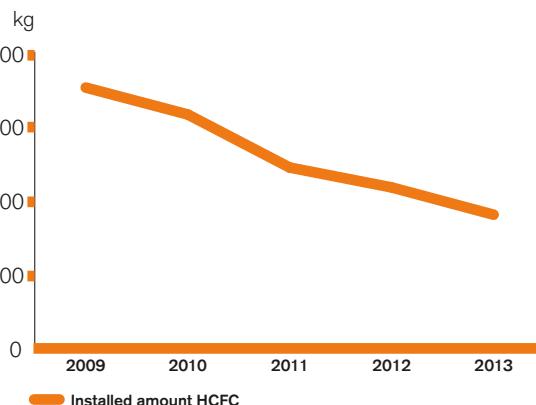
²⁾ The NOx emissions are calculated based on the quantity of fuel. Spot tests are also performed.

³⁾ 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.

ESTIMATED DIRECT AND INDIRECT CO₂ EMISSIONS^{1),2)}



INSTALLED AMOUNT HCFC



¹⁾ The Volvo Cars facilities included in the data are Volvo Cars Torslunda Plant (Gothenburg, Sweden), Volvo Cars Ghent Plant (Ghent, Belgium), Kuala Lumpur (Malaysia), Volvo Cars Skövde – Engines (Skövde, Sweden), Volvo Cars Flöby (Flöby, Sweden) and Volvo Cars Olofström – Body Components (Olofström, Sweden).

²⁾ Indirect emissions are estimated based on our assumptions for the primary energy sources for the countries in which we operate, as described under EN4. 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 (720 kg CO₂/MWh).

WATER MANAGEMENT

Volvo Cars works in a targeted manner to reduce emissions to water and water use. The company endeavours to be among the leaders in the automotive industry in this respect.

Fresh water management

Volvo Cars uses municipal water supplies only. Based on the Water Footprint calculations, Volvo Cars identified sites where water conservation has highest priority. It is Volvo Cars' ambition to take the lead in water conservation activities in areas with fresh water scarcity and to contribute with competence and know-how in waste water treatment processes and closed loop systems. In such areas, Volvo Cars works proactively to secure minimal environmental impact. This was done for example when building the new engine plant in China.

Waste water management

Municipal waste water treatment facilities impose restrictions on the water they will accept for treatment, what contaminants the water may contain and their concentrations. Volvo Cars consciously cooperates with municipality and local waste water treatment organizations. The objective is to have as optimal treatment of waste water as possible. Volvo Cars' discharges of water consist of internally pre-treated process water, and waste water discharged from catering and restroom facilities to the domestic water systems in the plants. The volume of recycled and reused water is currently not measured; neither is the volume of discharges of water judged to be significant.

Also in China, Volvo Cars works very actively on the waste water issue to ensure the company fulfils its global standards, which are significantly stricter than the local legal requirements. The waste water treatment plant in Chengdu is designed with both chemical and biological treatment steps before the water is released to a municipal waste water treatment facility. This treatment level exceeds local legal requirements in China.

WASTE MANAGEMENT

Volvo Cars works continuously to reduce waste by applying the following priorities:

1. Avoidance and prevention of waste
2. Material recycling
3. Energy recovery from waste
4. Landfill or destruction

In order to do so, Volvo Cars has made the waste management process more efficient. Volvo Cars weighs and classifies all waste in accordance with the European Waste Catalogue (EWC), which classifies waste materials and categorizes them according to what they are and how they were produced. Over 99 per cent of Volvo Cars' production waste originates in plants in Sweden and Belgium. The biggest parts of waste consist of metals from car production, which are recycled. Compared to 2012, the total amount of waste decreased.

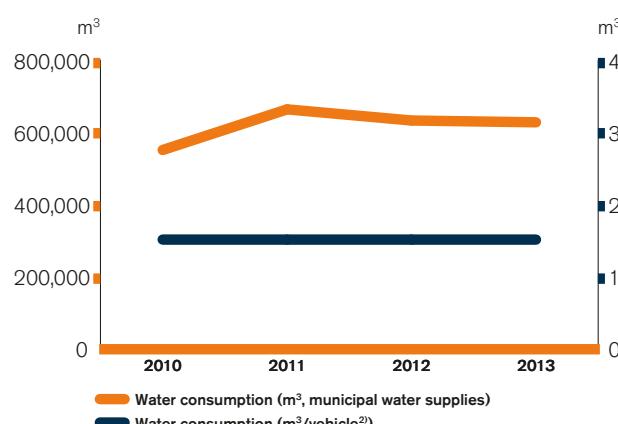
WASTE MATERIAL BY TYPE AND PROCESSING METHODS¹⁾

2013 (tonnes)	Treatment by a professional contractor				
	Recycled incl. Metal scrap	With energy recovery	Without energy recovery	Landfill	TOTAL
Non hazardous waste	192,321	5,978	167	654	199,120
Hazardous waste ²⁾	2,338	1,724	5,142	556	9,760
TOTAL	194,659	7,702	5,309	1,210	208,880

¹⁾ The Volvo Cars facilities included in the data are Volvo Cars Torslanda Plant (Gothenburg, Sweden), Volvo Cars Ghent Plant (Ghent, Belgium), Kuala Lumpur (Malaysia), Volvo Cars Skövde – Engines (Skövde, Sweden), Volvo Cars Flyby (Flyby, Sweden) and Volvo Cars Olofström – Body Components (Olofström, Sweden). The figures are provided by Volvo Cars' waste disposal contractor.

²⁾ Hazardous waste from Volvo Cars production plants includes: waste water sludge, oils, cutting fluids, paint sludge, adhesive residues and solvents. The target is to reduce hazardous waste.

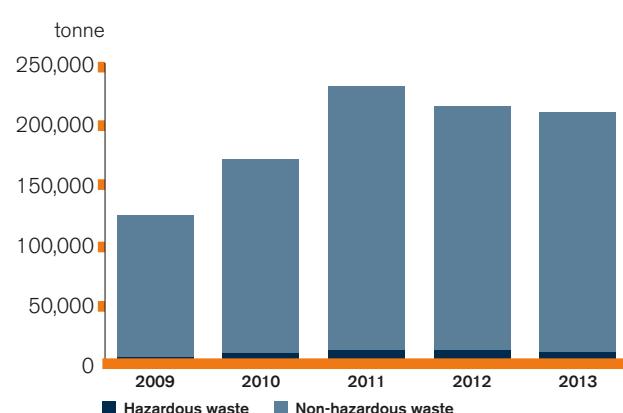
WATER CONSUMPTION¹⁾



¹⁾ Manufacturing plants are Volvo Cars Torslanda, Volvo Cars Ghent and Malaysia.

²⁾ KPI water consumption/vehicle is based on the number of produced cars in manufacturing plants.

WASTE MATERIALS BY TYPE¹⁾



¹⁾ Until 2011, the figure included Sweden and Belgium. The Volvo Cars facilities included in the data for 2012 are Volvo Cars Torslanda Plant (Gothenburg, Sweden), Volvo Cars Ghent Plant (Ghent, Belgium), Kuala Lumpur (Malaysia), Volvo Cars Skövde – Engines (Skövde, Sweden), Volvo Cars Flyby (Flyby, Sweden) and Volvo Cars Olofström – Body Components (Olofström, Sweden).

PREVENTION OF ENVIRONMENTAL ACCIDENTS

Volvo Cars works proactively to minimize the environmental risks in its operations. Advanced processes and technical installations are in place to prevent such environmental accidents. Three examples illustrate this:

- To prevent environmental spillage and incidents, the company has developed a risk analysis process. Regular risk analyses are performed at all sites where environmentally hazardous activities are carried out (in line with the definition in the Swedish Environmental Code).
- Volvo Cars carries out accident drills on a regular basis to test procedures and train staff. Environmental aspects are part of these exercises in order to ensure emergency preparedness. For example, in 2013 the company carried out an exercise regarding unloading of chemicals in the Torslanda plant. The scenario for the exercise was that a chemical was loaded into the wrong tank. The crisis management team of the plant, together with company health service, internal fire brigade and the guards were involved.
- All plants report environmental incidents and 'near-misses' to Volvo Cars' Environmental Protection Department in Gothenburg, Sweden.

In the past 19 years, Volvo Cars has not been notified or found culpable of any breach of environmental standards or operating licences in any of the company's plants. All environmental activities are conducted in compliance with applicable legislation and permits. No serious environmental accidents were reported to the authorities in 2013.

There were no environmental due diligence issues found when Volvo Cars ceased production at the Uddevalla plant in 2013.

CHEMICALS MANAGEMENT

Volvo Cars carefully manages the use of chemicals within the company at all stages – from substances used by R&D, to substances used in car

production until when the chemicals become waste. The overarching ambitions are to:

- minimize the use of hazardous chemicals
- reduce the negative impact of chemical substances on the environment
- ensure the safe handling of chemicals.

Every chemical substance used at Volvo Cars has undergone a risk assessment and approval process, before being introduced. Upon approval, safety instructions are created for every workplace and every product. Once a year, all sites conduct an inventory of chemical substances. In 2013 no chemical accidents were reported.

Volvo Cars has implemented cross-functional working groups and tools to manage the use of chemical substances. The working groups, in which all production sites are represented, work closely with R&D, the purchasing department and the aftermarket organization. Volvo Cars is also participating in external task forces such as the REACH task force of ACEA. The tools (such as Chemsoft and the IMDS – see above) support Volvo Cars not only in minimizing and phasing out certain substances, but also in their communication obligations (such as REACH reporting), and also in managing the implications of changing legislation.

During 2013 a reorganization project for chemical management was initiated. The objective of this project is to streamline the processes of chemical management by interconnecting the different functions working with chemicals in a better way. The new process will be effective as of 2014. It will also include definitions and control KPIs.

TRANSPORTS AND LOGISTICS

Volvo Cars uses various modes of transportation: rail, truck and sea transportation as well as intermodal solutions. Air transportation is kept at a minimum. Volvo Cars is continuously exploring better alternatives,



for example regarding rail transport. The biggest environmental impacts from transportation consist of emissions to air and water (such as CO₂, SOx & NOx) from transportation means. Besides emissions, noise from transportation as well as injuries from accidents during the process are focus areas for sustainable transport. The Vice President for Inbound & Outbound Logistics at Volvo Cars is responsible for managing these impacts together with the Global Logistics Team.

Volvo Cars is attaching ever-greater importance to logistical activities and processes. In 2012, Volvo Cars insourced the commercial and operational responsibility for global outbound transportation. In December 2013, Volvo Cars established the same responsibility for inbound logistics. Outbound logistics means the distribution of finished vehicles to dealers and customers worldwide. Inbound transportation comprises the transportation of production material and spare parts from suppliers to factories and other sites. Taking over the responsibility means that Volvo Cars is now able to design, control, measure and improve the transportation of its finished products and production materials.

In line with this ambition to streamline transportation, since 2012 Volvo Cars has been designing as efficient an inbound network as possible. The project's aim was to improve the overall transport network to achieve optimal transport mode as well as concept selection, together with improved utilization of trucks. An improved logistics network will not only have a positive financial impact but also result in lower environmental impact per shipment.

Since 2013, all outbound logistics service providers have been contractually obliged to have a certified ISO 14001 system in place to manage their, and hence Volvo Cars', environmental impacts. As of 2014 both outbound and inbound logistics service providers are required to use only modern and environmentally friendly truck fleets (compliant with the European Euro 5 emission standard). Volvo Cars follows up on these requirements on a regular basis. Any non-conformances are handled as breach of contract.

Volvo Cars has the ambition to further improve its network and to design sustainable transport solutions to keep emissions caused by transport logistics as low as realistically possible. In order to do this, in 2014 Volvo Cars will create a management platform to better measure and understand the emissions from inbound and outbound transportation. Once the platform is in place, Volvo Cars will be able to set emission targets for the different transportation flows and to facilitate the design of sustainable transport solutions for the future. Furthermore, as of 2014 the packaging of parts to be shipped from Europe to Asia will be managed in-house by Volvo Cars (so far this has been outsourced). In 2014, Volvo Cars will also assess the environmental impacts of different packaging solutions and develop future global packaging solutions.

BUSINESS TRAVEL AND COMMUTING

Volvo Cars actively reduces the impact from employees' business travels and commuting. A 2013 objective in this area was to reduce global travel and the costs associated with it. To achieve this, various steps were taken, such as:

- update of the corporate travel policy (effective as of September 2013)
- change of the corporate travel agency in September 2013
- introduction of an online travel booking system.

These changes not only have financial benefits, but also help reduce the environmental impact of business travel. According to Volvo Cars' travel policy, the necessity for any trip must be evaluated and the possibility of conducting a telephone or video conference call as an alternative must be considered. Employees must always choose the most suitable route and choice of transport from the company's point of view. Although costs and time constraints must be considered, the impact on the environment must be taken into account as well. Environmentally friendlier means of transportation (e.g. train instead of flight for domestic travel) must be considered as far as possible and if reasonable from a time perspective. Moreover, employees are expected to use company cars or public transport whenever possible instead of private cars and taxis. The policy also states that only one employee from each business unit shall make a trip for the same purpose.

In 2013, Volvo Cars started to define and implement KPIs to measure the environmental impact of business travel. As of 2014, Volvo Cars will be able to measure and manage the CO₂ emission per passenger/kilometre and the total CO₂ emission for all trips booked through the corporate travel agency. These figures will build the baseline for setting targets for emissions from business travel.

In addition to these efforts, production plants and offices have taken local initiatives to reduce their impact from commuting. The production plant in Ghent, for example, offers buses and a car-sharing system to enhance more environmentally friendly ways of commuting. Several buses pick up employees before their work shift and bring them back home after the shift. In 2013 the car-sharing system in Ghent encouraged 35 per cent of the employees commuting by car to commute together with colleagues, instead of individually in their own cars.

PROTECTED AREAS AND BIODIVERSITY PRESERVATION

The environmental organization Conservation International has developed a list of global 'biodiversity hotspots'. One of Volvo Cars' plants is located in such an area: the Swedish Motor Assemblies SDN BHD in Kuala Lumpur, Malaysia (50,000 m²), in the Sundaland Hotspot. This hotspot is quite large, extending over 1.5 million square kilometres. It covers the western half of the Indo-Malayan archipelago. Politically, Sundaland covers a small portion of southern Thailand; nearly all of Malaysia; Singapore; all of Brunei Darussalam; and the entire western half of the megadiverse country of Indonesia. The Nicobar Islands, which are under Indian jurisdiction, are also included. As with all other plants, Volvo Cars' Malaysian operation is located at a traditional industrial site close to urban areas.

Volvo Cars' other plants are located close to Natura 2000 areas. All plants have implemented environmental management systems in accordance with ISO 14001 (the new plants in Chengdu and Zhangjiakou, China will be certified in 2015). In this process, all operations have been inspected in terms of their impact on biodiversity. It was concluded that there are no individual substances or materials used in the company's processes or products that present a direct threat to any individual species or type of biota (total collection of species in a geographic region).

PEOPLE VISION AND STRATEGY

WE WILL ATTRACT AND RETAIN THE PEOPLE THAT WILL BRING NEW THINKING TO SOLVE THESE BIG CHALLENGES.

Volvo Cars has a clear vision: to be the world's most progressive and desired premium car brand. To reach this vision, the company needs people. That is why Volvo Cars has made it a strategic target to become an employer of choice that attracts and retains the people that will build the future for Volvo Cars.

The Volvo Cars Culture is the enabler to reach the company's business objectives. This culture is expressed by three cultural values: "Passion for customers and cars", "Move fast, aim high" and "Real challenge & respect". All employees at Volvo Cars contribute to the company's achievements and long-term goals by caring about people and the environment, always putting customers in the centre, and seizing opportunities while acting in a respectful and accountable manner.

FOCUS ON ORGANIZATIONAL PERFORMANCE AND HEALTH

Volvo Cars not only aims to become an employer of choice but also to be a lean and nimble company – an organization that motivates employees and gives them the right prerequisites to deliver great performance. Ultimately it is about realizing the full potential of Volvo Cars and fulfilling Volvo Cars' company purpose.

Volvo Cars' corporate strategy Designed Around You is also the cornerstone of the company's employee strategy. In 2011, when the corporate strategy of Designed Around You was formulated, Volvo Cars decided to build a global organization based on a balance of two aspects:

- Performance – what the company delivers to its stakeholders in financial and operational terms.
- Health – the company's ability to align, execute and renew itself faster than its competition to sustain exceptional performance over time.

In 2013, Volvo Cars focused on implementing a sustainable, effective and simple approach to working with both performance and health. Extensive performance and health transformation programmes were initiated and the Organizational Health Index (OHI) survey supported the measurement of this transformation journey. The OHI survey provides a means of monitoring the state of organizational health in the company. It is a result of one annual health survey and three quarterly organizational health surveys. The 2013 survey showed a setback on health compared to 2012, which has led to the initiation of a series of actions. Health will thus remain a strong focus in 2014 and beyond.



THE WORLDWIDE VOLVO TEAM

Around the world Volvo Cars employs about 23,500 people. As an employee, there are opportunities to work cross-functionally in a dynamic global organization. The diversity of personal backgrounds, skills and experiences not only makes the company strong in a global business environment – it also enriches the daily working life at Volvo Cars. For example, Volvo Cars China employs both locals and expatriates; approximately 10 per cent of China's employees are Europeans.

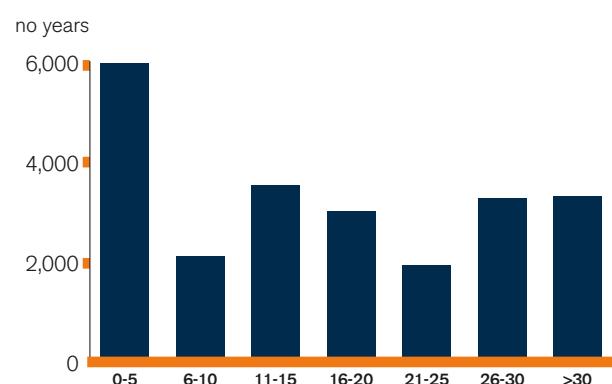
NUMBER OF EMPLOYEES PER EMPLOYMENT TYPE

	White Collar	Blue Collar	Total
Global			23,579 / 23,242 ¹⁾
Sweden	7,574	7,947	15,521
Belgium	252	3,904	4,156
China	820	714	1,534
Thailand	25	0	25
Malaysia	92	380	472
Market Companies	1,853	18	1,871
Sweden			
Torslunda plant	236	2,883	3,119
Gothenburg excluding Torslunda plant	6,816	1,898	8,714
Skövde incl Floby	357	1,624	1,981
Olofström	165	1,542	1,707

¹⁾ Average 2013.

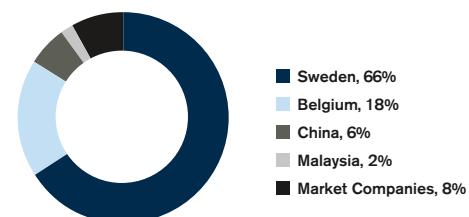
In 2013, Volvo Cars expanded the business by welcoming new members to the global team primarily as part of Volvo Cars' China growth. Other changes included the closing down of the production plant in Uddevalla, Sweden. Volvo Cars has been building cars in Uddevalla since 1989. The Volvo C70 model was produced at Uddevalla up until June 2013. By 2010 it had become clear, however, that from a financial standpoint it was not justifiable for a plant to manufacture just one single model in low volumes. The Uddevalla plant manufactured 10,000 cars in 2010 and by 2011 Uddevalla was only producing at 65 per cent of its capacity. Therefore, Volvo Cars ceased production at the plant in 2013. When the plant closed all of its approximately 600 employees had been offered employment within Volvo Cars operations elsewhere in Sweden.

EMPLOYEE TENURE¹⁾: NUMBER OF YEARS WITH VOLVO CARS

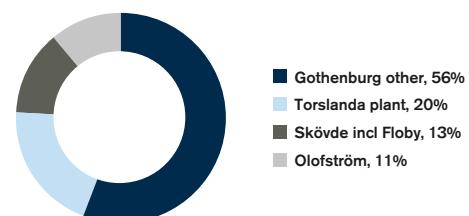


¹⁾ As per 31 December 2013; Sweden, Belgium and China; white collar and blue collar).

TOTAL NUMBER OF EMPLOYEES - GLOBAL



TOTAL NUMBER OF EMPLOYEES - SWEDEN



AWARDS IN 2013

Volvo Cars has made good progress towards the goal of becoming an employer of choice. Both in 2012 and 2013, Volvo Cars was listed on the Universum list of the world's most attractive employers, in which students around the globe are asked about their ideal employers. In 2013, Volvo Cars was ranked 49th on the list of most attractive companies among engineering students in the world's 12 largest economies.

During 2013, Volvo Cars was also recognized by the public as a top employer brand in the three countries where Volvo Cars has the most employees: Belgium, China and Sweden.

- In Belgium, Volvo Car Ghent has been part of the Randstad Award survey since 2010 in which a representative sample of employees



and job-seekers between the ages of 18 and 65 are asked for their views on the 150 largest companies in the country. Volvo Car Ghent has increased its ranking from being number 117 in 2010 to number 49 in 2013.

- In China, Volvo Car China was awarded the Best Employer of 2013 by major recruitment social media in China. Volvo Car China was for example awarded "The Top 30 Shanghai Best Employer of 2013" by Zhaopin.com (智联招聘), one of the biggest job searching websites in China. Furthermore, Volvo Car China was named as "The Top 30 China Best Employer of 2013" by Dajie.com (大街网), a new recruitment social media.
- In Sweden, Volvo Cars rose sharply up Universum's list of most attractive employers according to engineering students from colleges and universities across Sweden: from being number 26 in 2012 to number 13 in 2013. In Sweden, this is the largest increase in Volvo Cars' history.



Volvo Car China was named as "The Top 30 China Best Employer of 2013" by Dajie.com.

RESPONSIBILITY AND INTEGRITY

Responsibility and integrity are very important to Volvo Cars and its success as a company. Volvo Cars addresses these issues on the highest levels and expects every employee to live up to them. The most senior position responsible for issues related to corruption, anti-competitive behaviour and compliance is the General Counsel and Senior Vice President Group Legal. In 2012, a Corporate Compliance and Ethics Office was established with the aim of promoting coordination in the company's work on compliance, responsibility and integrity. The Compliance & Ethics Office is headed by the Chief Compliance & Ethics Officer who reports to the General Counsel and to the Board's Audit Committee. The Compliance & Ethics Office is responsible for implementing an effective global Compliance & Ethics programme covering the areas of anti-corruption, anti-trust and competition law, data privacy as well as export control within Volvo Cars.

CODE OF CONDUCT

Volvo Cars strives to combine business advantages with social, ethical and environmental responsibility. This commitment to responsible business is described in the Volvo Car Group Code of Conduct originating from Volvo Cars corporate policies. The Code of Conduct further rests on international conventions for human rights and labour rights. More specifically, the Code of Conduct sets out to comply with the eight core conventions of the UN agency the International Labour Organization, the 10 principles of the Global Compact, the Universal Declaration of Human Rights, the UN Convention on the Rights of the Child and the OECD guidelines for multinational companies.

The Code of Conduct is aimed at all employees. Furthermore, all suppliers that the company does business with, all dealers that sell the products of Volvo Cars and all other representatives that conduct business on behalf of the company are expected to adhere to the Code of Conduct or their own rules in line with Volvo Cars' Code of Conduct. The Code of Conduct sets out the compliance and ethics topics which

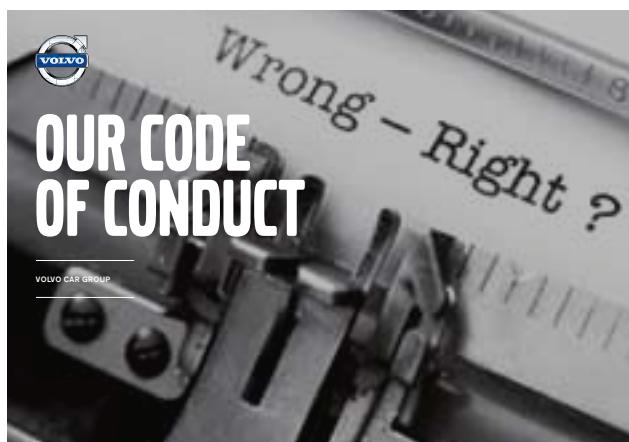
are relevant for the company's business. It makes reference to important policies relating to, for example, bribery and corruption, labour rights, and social responsibility. The Code of Conduct and Volvo Cars corporate policies are approved by the Board of Directors. All employees must know and comply with all company policies and instructions relevant to their work. The Code of Conduct is available both on the intranet and publicly at: www.volvocars.com/sustainability.

Volvo Cars updates the Code of Conduct regularly due to new or changed legal and ethical requirements and expectations from stakeholders. In 2013, Volvo Cars started to review and redevelop the Code of Conduct as well as underlying policies and directives. In order to do so, the company conducted a risk assessment survey in 2013. The purpose of this survey was to identify legal and ethical risks that the company is exposed to. Questionnaires and follow-up telephone interviews were conducted with Volvo Cars operations in selected countries: China, Russia, Brazil, India, Turkey, Malaysia, the United Kingdom, Japan and Germany. The main areas of risks identified through this survey were: Bribery & Corruption, Gifts & Events, Conflict of Interest, Health & Safety and Intellectual Property. The outcomes of the survey provided Volvo Cars with increased awareness of the different risks in the different countries. It also serves as a valuable foundation for Volvo Cars' global communication plan for the new corporate policies and the new Code of Conduct. The new Code of Conduct document is more in line with the Designed around You strategy; shorter, easier to understand and more relevant to all our employees and Volvo Cars business. It explains what the company stands for and how it does business. The new corporate polices and the Code of Conduct were launched in the spring of 2014.

TRAINING EMPLOYEES IN COMPLIANCE AND ETHICS

Training, education and communication represent a large and important part of Volvo Cars' Compliance and Ethics programme. Web-based training on its Code of Conduct which is mandatory for all employees with computer access was rolled out globally in May 2013. Due to certain technical problems, the number of participants was lower than expected as many employees who tried to participate couldn't access the training tool. During the fourth quarter of 2014, a new Code of Conduct e-learning programme is planned to be launched globally via a another, much more reliable tool.

In addition to the mandatory e-learning training, Volvo Cars also conducts classroom training on the Code of Conduct with targeted audiences such as new leaders, all employees in China, new employees, management teams and specific functions which are considered more exposed to risk. Volvo Cars has also developed specific web-based training on combating bribery, which is mandatory for all white collar employees. This training aims to give employees insights and practical examples regarding the prevention of corruption. The training course on "Combating Bribery in Business" is also mandatory and part of the



introduction programme for new employees. During 2013, 2,192 new employees completed the training.

As stated above, both the Code of Conduct and the "Combating Bribery in Business" training are mandatory for new employees and are included in the introduction programme. Volvo Cars conducted an internal survey with all employees hired during the second half of 2013 to measure how well the introduction for new employees works. The survey was sent out to 381 new employees and 250 replied. Sixty-one per cent of the respondents answered that they felt confident in their level of understanding of the Code of Conduct.

In 2013, Volvo Cars also conducted additional in-depth classroom training on four different topics addressed to specific roles and functions. A (non-exhaustive) summary of training initiatives in these areas is given in the table below.

Topics	Target groups
Compliance & Ethics	All new leaders, all new employees, Purchasing China staff, Marketing & Sales management team, Union representatives, Global HR management team, National Sales Companies in the UK, Russia and US
Competition Law Compliance	National Sales Companies, the Netherlands & Belgium
Code of Conduct	Purchasing China staff
Information Security	China operations staff

In 2014, Volvo Cars will expand the portfolio of training, both face-to-face and in the e-learning setting. In connection with the launch of the revised Code of Conduct there will be more focus on face-to-face communication and training.

BRIBERY AND CORRUPTION

Volvo Cars does not tolerate any form of bribery and corruption and it is the company's policy to comply with all applicable laws, rules and regulations in all countries where it operates. At Volvo Cars, it is policy not to engage in any act that could possibly be perceived as giving or taking a bribe, or in any kind of corruption. The company's Code of Conduct includes Volvo Cars' policy regarding bribery and corruption and details on conflicts of interest, gifts and entertainment.

Corrupt business practice is a global problem and Volvo Cars is present in many so-called high-risk countries. To address this risk the company is reaching out in the different regions with internal training on the Code of Conduct as well as specific training on corrupt business practices. Since 2012, the company has a Compliance & Ethics Officer based in China who conducts classroom training with all employees and who is available to answer individual questions and address concerns. Furthermore, Volvo Cars is establishing compliance and ethics ambassadors in the business organization in relevant countries. These ambassadors will be supporting local implementation on global training and will assist in identifying local concerns.

GRIEVANCE MECHANISMS

All employees at Volvo Cars have a responsibility and are expected to report any serious breach of the Code of Conduct to the appropriate representative within the company. Since 2012, the company has opened up the possibility for external reporting to suppliers and other business partners, available for example on the public supplier portal website. Reporting tools for internal reporting include emails (read only by the Compliance & Ethics Office) and the incident reporting tool owned and managed by the Security Office. These are available on Volvo Cars' intranet.

The company has a policy of non-retaliation, which implies that retaliation is forbidden towards any employee who raises an issue in good faith, or who cooperates in a company investigation of an issue. All employees have the right to report anonymously.

The Compliance and Ethics Office is responsible for investigating reported violations of the Code of Conduct. All reported violations of the Code of Conduct that come to the attention of the Compliance and Ethics Office are investigated and reported to the Global Compliance Committee and the Board's Audit Committee. Disciplinary actions are proposed when relevant and decided by the Global Compliance Committee. During 2013, the Compliance & Ethics function was further strengthened by hiring a Compliance Investigator.

RESPECTING LABOUR RIGHTS

Employees are Volvo Cars' most important resource. Motivated, skilled and committed employees are the resources that enable continued success for the company. Adhering to and respecting labour rights are therefore highly important to the company.

FREEDOM OF ASSOCIATION AND COLLECTIVE BARGAINING

Volvo Cars recognizes the rights of all employees to form or join associations of their own choosing concerning the relationship between the employer and the employees, and to bargain collectively. In 2013 in Sweden, Volvo Cars reviewed the relevant internal processes to ensure this. The company does not tolerate disciplinary or discriminatory actions from the employer against employees that choose to peacefully and lawfully organize or join an association. The company follows national legal or collectively bargained information duties and minimum notice periods regarding significant operational changes. Volvo Cars furthermore respects voluntary organization by allowing the collection of union dues on company premises, the posting of trade union notices, distribution of union documents, and provision of office space for union representatives. Furthermore, in Sweden, the company trains specific employees and union representatives in issues concerning labour rights. During the reporting period, 25 human resources and union representatives were trained on major changes at the workplace. This training will continue during the first half of 2014. In 2013, globally, approximately 85 per cent of Volvo Cars' employees with permanent contracts were covered by collective bargaining agreements.

CHILD LABOUR AND FORCED LABOUR

At Volvo Cars, child labour and forced labour is not accepted in any of its businesses. Neither does Volvo Cars accept the use of child labour

or forced labour by any supplier, dealer or subcontractor. In no event will the company employ any person below the age of 15, unless this is part of a government-authorized job training or apprenticeship programme that would be clearly beneficial to those participating. Furthermore, the company shall not engage in or support the use of forced labour, nor shall any employee be required to deposit identity papers when commencing employment with the company. Volvo Cars guarantees that all working conditions comply with all statutory requirements. Furthermore, all Volvo Cars employees have the right to have written contracts, in language that they can easily understand, specifying their terms of employment.

HARASSMENT AND DISCRIMINATION

Volvo Cars has a zero tolerance approach to discrimination and harassment. The company's directives on discrimination are covered by Volvo Cars' Discrimination Directive and Victimization at Work Directive. These directives describe definitions of harassment and discrimination, responsibilities and internal quality assurance audits, and guide managers and employees on procedures when an incident of harassment or discrimination has occurred at the workplace.

Harassment includes language or conduct that may be disparaging, intimidating or offensive to others. In 2013 a four cases of suspected harassment and discrimination were reported globally. The cases were carefully investigated and in two instances proper corrective and supportive actions were taken. In the other two cases no evidence of wrongdoing could be found.



HEALTH AND SAFETY OF EMPLOYEES

Volvo Cars' ambition is to create a suitable, structured working environment jointly with its employees. Employees participate in work environment matters by reporting risks, illness, health-related matters, accidents and potential accidents. This leads to remedial actions and provides feedback on health and safety measures. It is important to the company that agreements are reached with employees on how joint action can be achieved on working environment measures. This could entail workplace meetings and joint assessment of the working environment.

Volvo Cars' formal agreements with trade unions cover topics of health and safety. Corporate health and safety comprises a professional resource within the company to secure requirements for legal compliance and the company ambition of being the employer of choice. Relevant activities include investigations, risk assessments, proposals for remedial measures and employee training. Each division is supported by a health and safety specialist to coordinate and manage health and safety efforts. In addition, the company contracts an external health service company with medical and technical professionals who assist us with surveys, assessments and advice.

SAFETY GOVERNANCE

To guarantee its commitment towards the health and safety of all employees, Volvo Cars has established the following structures and procedures:

- **Volvo Cars Work Environment Directive:** The company's policies on labour practices and decent working conditions are covered by Volvo Cars Work Environment Directive. This Directive aims at improving the work environment, health and safety. It describes organizational responsibility, work environmental programmes, job adaptation and rehabilitation, company health care and future work environment.
- **The Work Environment Committee:** This committee's mission is to develop the company's working environment policy and to ensure compliance. The committee also encourages the line organizations to develop goals and action plans relating to the work environment, and works to enhance cooperation within the company and the industry.
- **The Safety Review Board** has full management authority to review and take decisions on all aspects of health and safety within its purview. The intention is to standardize this forum as a management safety tool throughout Volvo Cars.
- **Leadership Safety Walks:** A Leadership Safety Walk is an opportunity for managers to discuss safe behaviour and how to improve safety with employees in their actual job function.
- **Health & Safety integrated in Volvo Car Manufacturing System** is the Lean Manufacturing System of Volvo Cars which brings in opportunities for continuous improvements and full integration, and maintains the focus on work environment issues on a daily basis in the manufacturing operations.

- **Volvo Cars Work Place Management Systems** is the management system for systematic work with, and follow-up of, working environment issues. All workplaces are screened regularly by managers and safety officers and deviations are corrected. Risk assessments on different levels and topics are standard procedures and used throughout the company.
- **Volvo Cars' Safety Officers** function as representatives of all employees and must work to promote a satisfactory work environment. At Volvo Cars Sweden, Safety Officers and union representatives are involved in the planning and implementation of measures. This involves studying working conditions, planning remedial actions and conducting annual follow-ups. Volvo Cars' Safety Officers are vital project resources and agents of change, and must take part in the initial stages of such measures.
- **The Green Cross tool** provides a visual means for following up workplace injuries. The overall purpose of the tool is to ensure that the risk of workplace injuries is minimized through investigations, preventive actions and reporting. The tool can be used by all units, levels and departments.

DESIGNED AROUND YOU @ WORK

In 2013, Volvo Cars rolled out a change programme "Designed Around You @ work" that involves 10,000 employees at Volvo Cars in Sweden and Belgium. This change programme entails redesigning the Volvo Cars work spaces along activity-based lines. All employees will have redesigned work spaces with ergonomic equipment and updated technology. The change programme also encourages a change in behaviour. With more open spaces and more areas to meet and socialize, Volvo Cars employees have better opportunities to collaborate and learn from each other. The vision is to create a work place that can support Volvo Cars' long-term goals; increasing customer orientation, innovation, productivity, product quality and internal collaboration. The pilot project with one of the office buildings in Gothenburg, Sweden was launched in 2013 and Volvo Cars' IT office moved into an activity-based work space in January 2014.

SAFETY LEADERSHIP

To further enhance the health and safety of its employees, Volvo Cars launched a health & safety leadership programme in 2006. This programme resulted in a decreasing lost time case rate (LTCR). However, in recent years the LTCR has levelled out. Volvo Cars is now changing the focus from behaviour to values in its new leadership programme, "Aspired Safety Culture". The Aspired Safety Culture programme is a part of a broader leadership programme and includes training and coaching in safety culture. The programme will lead to greater team involvement in incident reporting and an increased focus on a more preventive way of working. A pilot starts in Volvo Cars Body Components and Volvo Cars Ghent in the second quarter of 2014.

The Aspired Safety Culture programme will eventually be rolled out throughout Volvo Cars globally.

HEALTH AND SAFETY IN NUMBERS

Sick leave among employees in Sweden and Belgium has been slowly but surely decreasing in recent years as a result of the company's systematic health and safety efforts. Volvo Cars succeeded in its ambition and achieved an all-time low sickness absenteeism level of 4.4 per cent in 2011 and 2012. The result for 2013 is estimated to be 4.5 per cent in total for Sweden and Ghent: a slight increase compared with earlier years. Outside Europe, sick leave is measured differently. The ambition is to unify measurement and reporting.

In 2013, the lost time case rate (LTCR) was 0.62, with a total of 76 cases. In January 2013, an accident occurred during test driving which resulted in the death of a test driver. The vehicle went off the road and the test driver was fatally injured due to road circumstances. An internal investigation was conducted and Swedish authorities

(Arbetsmiljöverket) were notified. Volvo Cars also reported information about the accident to management teams and colleagues. A crisis support team was established to support management teams and colleagues, liaising with relatives and the Swedish church for support. A memorial was held within the department.

TOTAL NUMBER OF ACCIDENTS

	2009	2010	2011	2012	2013
Injuries ¹⁾ (LTCR)	0.5	0.6	0.7	0.55	0.62
Serious injuries ²⁾	6	6	15	9	6
Injuries ³⁾ contractors	-	-	17	21	9
Fatality	0	0	0	0	1

¹⁾ 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).

²⁾ Defined as total number of injuries leading to fractures, unconsciousness, etc.

³⁾ Lost time case (LTC) figures only, worked hours for contractors are not measured therefore no figures for LTCR for contractors.



In 2013, the near-misses and risk observations consisted of 23,676 cases. The company's ambition is to implement a system which will allow it to monitor near-misses, accidents and incidents in all its operation sites. The current system is called TIA, an internet-based system used to report incidents and risk observations, both Health & Safety and Environmental, directly into any computer nearby. In 2013, the system was available at Volvo Car Customer Service (VCCS) and Volvo Cars Torslanda (VCT). Volvo Cars plans to have the system running in all its operations by the end of 2014.

TRAINING AND PREVENTIVE MEASURES

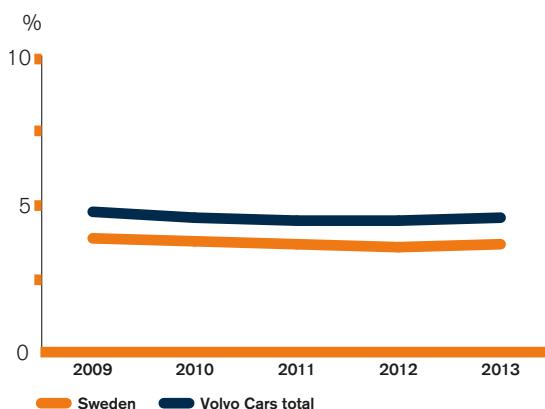
The company acknowledges that it is, as employer, responsible for organizing and conducting its operations in a manner designed to prevent accidents and work-related illnesses. Volvo Cars conducts company-wide injury prevention programmes. All employees are responsible for reporting injuries and serious incidents to their immediate superior. Volvo Cars compiles an annual report of all reported injuries and incidents, which provides a solid basis for the company's preventive programmes. The company's action plan for work environment activities places particular emphasis on reporting incidents which might have resulted in personal injury. Volvo Cars' injury prevention programmes are conducted by the Work Environment Committee (see "Safety governance" on page 38). Together, the committees cover all units and operations in Sweden, as well as the production units in Belgium and Malaysia. The task of these committees is to survey and evaluate the risks present in the working environment, and to propose

action to minimize them. The ambition is to have Working Environmental Committees up and running in China as soon as possible.

Over the years Volvo Cars has worked systematically to reduce occupational risks, with the focus on high-risk areas and personal behaviour. In the past 10 years there has been a downward trend in the risk of sustaining a work-related injury or illness. A comprehensive training programme for managers and safety officers is one of the means adopted to achieve this aim. Training and supplementary training on the work environment is offered to Safety Officers and all first-line managers. Middle managers are offered two days of working environment training and senior managers a half-day introduction. In 2013, Volvo Cars focused on training new employees and leadership in health and safety in operations in China. In 2014, Volvo Cars will continue efforts on training for new employees, leadership in health and safety and machine safety. The aim is for all the company's operations globally to be in safety compliance with the standards of the production units in Sweden and Belgium.

Volvo Cars is constantly adapting to the changes of its workforce. "Sustainable Work Life" is a project that started in 2013 and will continue throughout 2014. The aim of the project is to ensure that manufacturing sites and office facilities are better suited for Volvo Cars' ageing workforce. Planned activities for 2014 include ergonomic reviews of Volvo Cars' Belgium assembly line. Reviews will also be conducted in the production stations to better understand how each activity is performed and what type of physical strengths are needed to perform each activity.

SICK LEAVE PER AVAILABLE HOURS



DIVERSITY AND INCLUSION

WE HAVE A GLOBAL TALENT APPROACH, BASED ON HOLISTIC DIVERSITY THAT WILL BE VISIBLE ON ALL LEVELS THROUGHOUT OUR COMPANY.

A human-centric approach to global culture, diversity and inclusion is important to Volvo Cars. Volvo Cars is currently on a transformation journey: it has an increasingly strong focus on becoming a diverse global corporation with diversity and inclusion as a natural part of everything we do.

DIVERSITY GOVERNANCE

Volvo Cars' Diversity Steering Committee was established with the aim of securing continuous improvement of diversity work. Members are the Diversity Manager, three representatives from the Executive Management Team, and two from the Global Leadership Team. Volvo Cars' Global Diversity Council consists of 18 Culture and Diversity Champions who meet bi-monthly. A Culture and Diversity Champion is appointed for each business area in the company with the aim of integrating diversity work more effectively into its daily operations. The Global Diversity Council is chaired by the Diversity Manager, and its role is to pursue diversity issues in the company and support diversity efforts, focusing on concrete actions.

DIVERSITY TARGETS

Volvo Cars aims to focus on improving and incorporating a global perspective on culture, diversity and inclusion in all processes

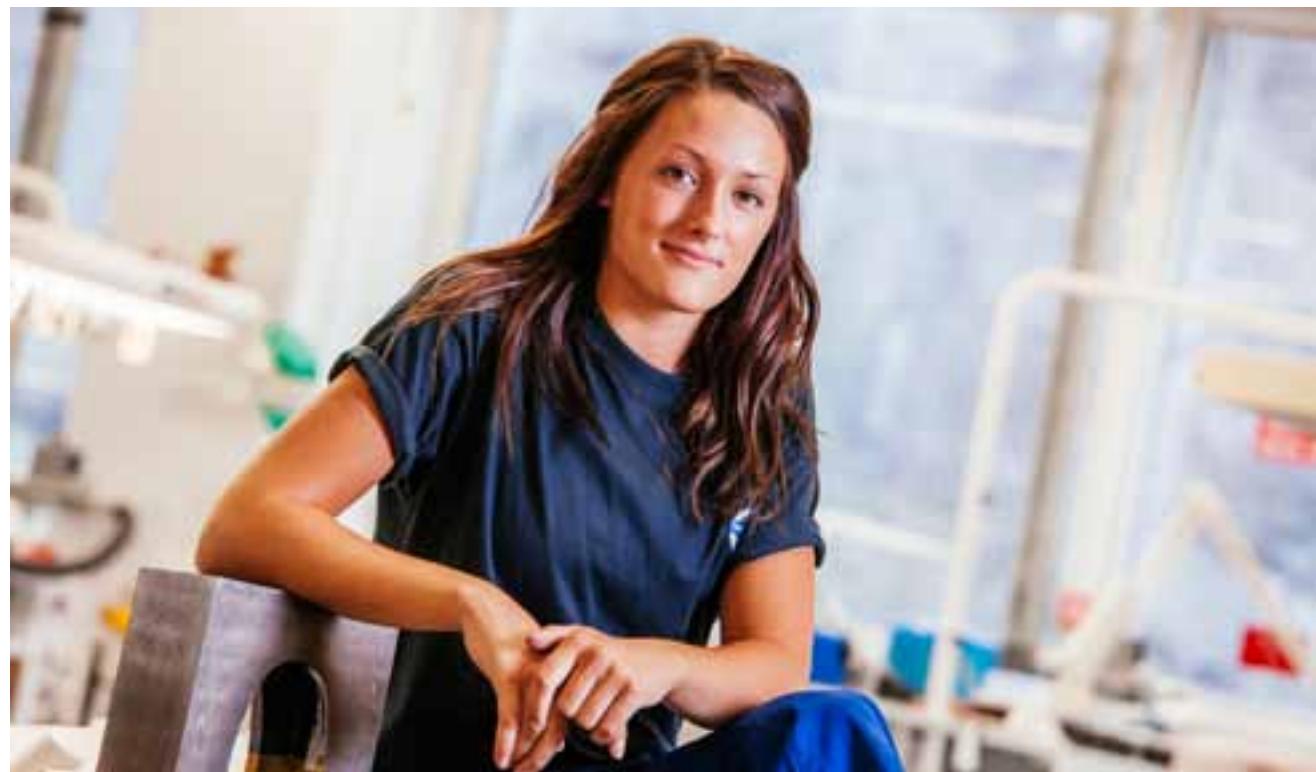
throughout the organization. The company's specific diversity target for 2020 is to achieve 35 per cent women in senior positions.

In 2013, Volvo Cars performed an internal audit on diversity. The results showed that awareness on diversity and equal opportunities within the company was low. As a result, Volvo Cars will invest in a train-the-trainer coaching for all Global Diversity Champions with focus on increasing the recruitment of diverse competences (see page 43 for more information on training in diversity). Global Diversity Champions will act as role models of the company values and behaviours. Volvo Cars will also appoint a Global Culture and Diversity Champion in China to represent the Volvo Cars Corporate Culture in China.

Volvo Cars' Diversity Steering Committee and Global Diversity Council established two diversity goals for 2014:

- Identify 500 Volvo Cars Cultural Role Models. In 2014, Volvo Cars plans a process called "Volvo Voices" for employees to nominate colleagues as Volvo Cars Culture Role Models. Identified culture role models will be featured in internal communication.
- Refine recruitment procedures and structures to include Volvo Cars' values, culture, diversity and inclusion.

Culture and diversity information will be communicated internally to all employees each week through the Volvo Cars intranet.



DIVERSITY PLAN

Volvo Cars' Diversity Plan 2013–2015 includes a series of activities to accelerate progress towards increasing diversity and to utilize diversity within the company. Volvo Cars has identified the following cascaded focus areas in its Diversity Plan:

1. Improvement of diversity and inclusion communication – Clear global communication on the company's vision and mission with Culture, Diversity and Inclusion.
2. The development of a Gender Diversity Plan focusing on recruitment processes and tangible targets per business unit.
3. Following up on results relating to valuing people, career, working climate and inclusion.
4. Strengthening the zero tolerance harassment and discrimination policy: Communication and training in terms of global legal requirements and processes will be made more readily accessible and clear for all employees.

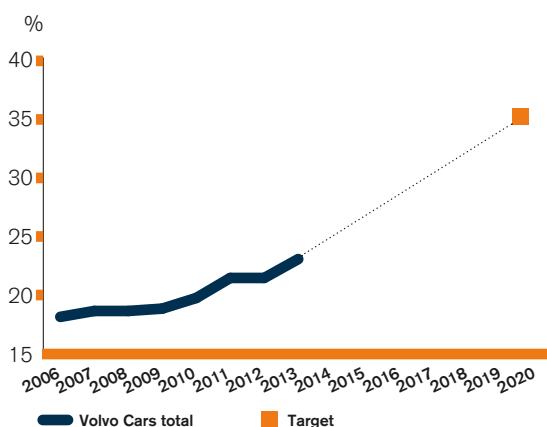
These cascaded areas will be reviewed and followed up at each Global Diversity Council meeting.

DIVERSITY IN NUMBERS

In 2013, the Volvo Cars Executive Management team consisted of 13 people: 11 men and 2 women. The Board of Directors consisted of 13 people: 11 men and 2 women. Volvo Cars faces the challenge that the ratio of women attaining senior positions is lower than that of men. However, there is a trend towards a better gender balance in leading positions. As part of Volvo Cars Diversity Plan 2013–2015, the company will focus on improving the ratio of women to men in senior positions.

The proportion of women in leadership positions (managers with direct reporting responsibilities, programme managers, project leaders and specialists in leading positions) increased from 12 per cent in 2002 to 22.9 per cent by the end of 2013.

PROPORTION OF WOMEN IN LEADING POSITIONS¹⁾



¹⁾ Leading position covers managers with direct reporting responsibilities, programme managers, project leaders and specialists in leading positions. Data for 2011 represents China, Belgium and Sweden, while previous years' data represents global numbers.

FAIR AND EQUAL TREATMENT

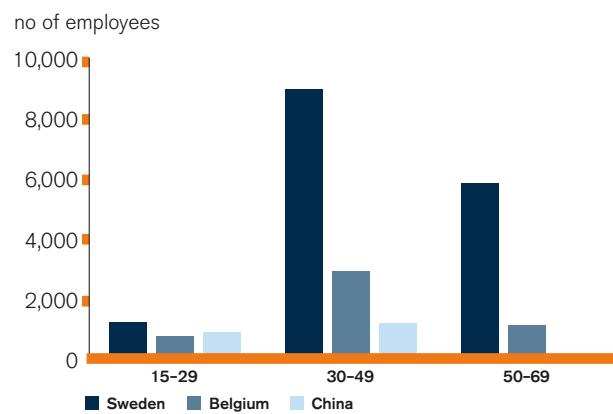
An important aspect of diversity is to ensure fair and equal treatment of all employees. Volvo Cars has implemented a clear salary policy and a structured salary process to ensure fair and equal payment. According to this policy, wages and benefits shall always be fully comparable with legal or industry standards. Information on wages and benefits shall be available to employees in accordance with applicable law.

Volvo Cars China offers the same benefit packages for both white collar and blue collar employees. To ensure high quality housing and living standards that suit the individual needs of each employee, Volvo Cars China offers blue collar employees allowances for accommodation. Dormitories at the company's Chengdu and Daqing sites are sponsored by local government.

In connection with the annual salary revisions, the company conducts an analysis of salaries together with the trade unions represented at its facilities. The aim of this work is to identify and adjust any discrepancies in the salary structure. Discriminatory salary inequalities between men and women are included among the follow-up parameters.

The salary comparisons in the tables below show that there is a slight tendency towards lower salaries for women throughout all of the categories for white collar workers. The discrepancy is the highest in the most senior position category. Volvo Cars works continuously to eliminate salary discrimination by gender. For example, it has a gender-neutral salary policy and in the annual salary revisions there is a requirement to allocate at least the same proportion of salary raise to women as to men. The differences that still exist can be explained by the fact that women have a lower average age within each salary group, and that women in general progress faster between different salary groups and have therefore participated in fewer revisions within each group. Within the group of blue collar workers, salaries between women and men are levelled.

AGE DISTRIBUTION – WHITE AND BLUE COLLAR¹⁾



¹⁾ Sweden, Belgium, and China.

BASIC SALARY RATIO BETWEEN WOMEN AND MEN BY EMPLOYEE CATEGORY (WHITE COLLAR)¹⁾

2013	Administrative service	Administrative assistant, Engineer entry position	Engineer experienced	Engineer senior, supervisor production	Group Manager, Qualified professional	Group Manager, Appointed Specialist, Project Manager	Section Manager	Department Manager
Ratio salary ²⁾	1	0.98	1	0.96	0.97	0.98	0.97	0.85

¹⁾ Sweden only.

²⁾ Salary ratio indicates women's salary in relation to men's in each employee category.

BASIC SALARY RATIO BETWEEN WOMEN AND MEN BY EMPLOYEE CATEGORY (BLUE COLLAR)¹⁾

2013	Administrative service, logistics	Skilled worker	Highly skilled worker
Salary ratio ²⁾	0.97	0.98	0.98

¹⁾ Extract Sweden only.

TRAINING IN DIVERSITY

Since 2010, Volvo Cars has provided an extensive diversity training programme for managers. In 2013, the company decided to conduct training for Diversity Champions from each Global Diversity Council. This training will take place in 2014 and will provide Diversity Champions with up-to-date information on harassment and discrimination laws and equal opportunities. A total of 18 diversity champions will attend the training. In 2014, Volvo Cars plans to further invest in Global Culture and Diversity Champions with a train-the-trainer concept workshop that enables Champions to conduct training themselves. These training courses will include the topics of inclusion, discrimination and harassment from a global perspective. The training is planned to be held in every management group and business unit during the first half of 2014.

DIVERSITY INITIATIVES IN 2013

Volvo Cars sees diversity as "business as usual". In 2013, there was a strong focus on implementing diversity initiatives throughout the company. Two examples of initiatives are described below.

Disability parenthood network (DIPANET)

DIPANET is an employee-founded initiative with the purpose of increasing awareness within the company about co-workers living with children with disabilities and special needs. The initiative aims to improve policies governing working hours flexibility and prevent employees from feeling inadequate or disqualified from career opportunities. The group currently consists of about 18 people working in many different departments at Volvo Cars.

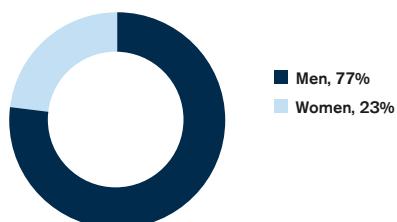
Volvo Experience Programme

The Volvo Experience Programme started on a small scale in 2013 and will develop to full scale in 2014. It is an internship programme which aims to provide useful working experience for young unemployed people between the ages of 18 and 24 in Sweden. The aim is to support young people in eventually getting a job or entering education. Interns under this programme will make up one per cent of Volvo Cars' workforce (approximately 150 people). In this initiative, Volvo Cars works in close collaboration with the Swedish Public Employment Service, Arbetsförmedlingen.

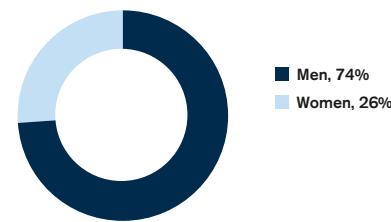
INTERNSHIPS

Volvo Cars offers other internship programmes. For example, Volvo Cars China offers internships on every site and in almost all functions including finance, human resources, research and development and purchasing. During 2013, Volvo Cars China offered full-time employment opportunities to 15 white collar interns and 208 blue collar interns. All interns recruited from China's vocational schools are over 17. Volvo Cars offers full-time employment opportunities when they turn 18.

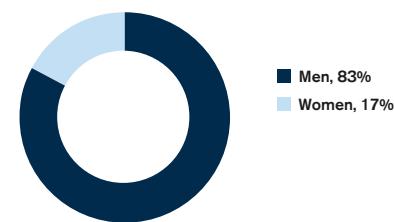
PROPORTION OF WOMEN IN LEADING POSITIONS



GENDER DISTRIBUTION WHITE COLLAR



GENDER DISTRIBUTION BLUE COLLAR



DEVELOPING EMPLOYEES

VOLVO CARS' WORK SHOULD BE CHARACTERIZED BY RESPECT FOR HUMAN BEINGS AND BY EMPLOYEE EMPOWERMENT – WITH THE OPPORTUNITY FOR CONSTANT DEVELOPMENT.

Volvo Cars invests in the continuous development of its employees to create value for the company. The overall learning vision is to enable employees to be active in driving their own development, while the company moves from being a learning provider to being a learning enabler and promoter of knowledge sharing. With public funding such as the European Social Fund, the company has had the opportunity to allocate more resources to training and competence development in recent years. In future Volvo Cars will continue to work with public funding through partnerships with suppliers and other companies, with the aim of making available even more resources for competence development and improving collaboration and cooperation with other players in the same market.

TRAINING MANAGERS

During 2013, approximately 200 people participated in a training programme for new managers in Belgium, China and Sweden. The programme included courses on diversity, discrimination law and psychosocial work environment. During the year, the company continued the Aspired Leadership Programme (ALP) for its Global Leadership Team. ALP received good reviews and provided participants with insights and concrete actions to support the transformation in the company.

TRAINING EMPLOYEES

Every employee within Volvo Cars has a personal development plan, developed in dialogue with his or her immediate superior. The purpose is to ensure the employee's continuous development and a match with the business needs. Development plans may lead to training or other forms of competence development.

During 2013, Volvo Cars offered approximately 500 different courses in 3,000 sessions, with a total of almost 39,000 participants. The main training areas included: product-related issues (engineering); IT systems and tools; leadership and organizational development; process-related manufacturing; and safety, health and environment.

Volvo Cars offers blended learning solutions, communication tools and resources that enable the employee's self-directed learning. The above-mentioned figures do not include other efforts, such as competence development activities like mentoring, project work, job rotation and literature studies which are an important part of the learning model.

Volvo Cars China has in place group-level employee development structures. Besides classroom training, employees have opportunities to participate in exchange programmes between Volvo Cars China and Sweden. In 2013, a number of employees from the Marketing & Sales and Purchasing & Manufacturing departments participated in this

exchange programme. The plan for 2014 is to extend the exchange programme to Finance, Research and Development and the Human Resource functions.

THE VOLVO CAR ACADEMY

The Volvo Car Academy was established in 2013. The Academy is a virtual organization and develops new learning activities with a special focus on cross-functional and global needs, taking into account the latest trends and solutions. The Academy provides learning opportunities, enables synergies between functions through transparency and selection of suppliers, boosts internal trainers and spreads best practices. The activities are developed in partnership with business schools, technical schools and universities in order to give employees relevant training of high quality. The Volvo Car Academy cooperates closely with Volvo Cars' line organizations to support prioritized needs.

PERFORMANCE MANAGEMENT

The Volvo Cars corporate culture is the foundation on which its performance management framework is based. Every employee is responsible for defining personal goals and development activities in order to support the business and prepare themselves for future challenges. The manager's responsibility lies in enabling this process by leading, managing and coaching with relevant feedback and support. During 2013, a new method of performance rating was launched. In addition to objective fulfilment and behaviours, fulfilment of the short- and long-term expectations of the job (sustainable performance) was added as evaluation criterion.

INCENTIVE PROGRAMMES

Volvo Cars has two global incentive programmes: a global cash-based short-term incentive programme (STI) for all employees and a long-term incentive programme (LTI) for executives and senior managers. The design and pay-out of these programmes are subject to the Board of Directors' annual approval. The purpose of the STI programme is to strengthen global alignment among employees around Volvo Car's vision, objectives and strategies and to encourage all employees to achieve and exceed the business plan targets in order to reach the long-term targets. The purpose of the LTI programme is to attract, motivate and retain key competence within Volvo Cars. The LTI programme is based on calculated market value of Volvo Cars.

PENSION AND INSURANCE POLICIES

Against the background of the aspiration to be the employer of choice and being a responsible company, Volvo Cars started a project to develop a global pension and insurance policy in 2013. The policy was approved at the end of 2013 and will be launched in 2014. The policy states that employees at Volvo Cars shall be sustainably and respectfully insured and that all employees shall:

- Have financial security in cases of disability, work injury and during company travel.
- Know that there is an existing survivor's policy in case of death.
- Know that occupational pensions are long-term and sustainable.
- Know that the company's old age pension benefits are competitive in the market and in the country of residence.

The Swedish corporate pension fund (Volvo Personvagnars Pensionsstiftelse VPPS) is a separate legal entity. VPPS has incorporated ethical considerations regarding environment, consumers, employees and communities in its investment policy. These considerations are derived from Volvo Cars' Code of Conduct and will be further developed during 2014.



PRODUCT RESPONSIBILITY

TO VOLVO CARS, THE ESSENCE OF AUTOMOTIVE SAFETY IS PUTTING PEOPLE AT THE HEART OF EVERYTHING WE DO.

Volvo Cars keeps pushing the limits of what is technically possible, refining safety every day, with the future vision to build cars that do not crash.

SAFETY VISION: TOWARDS ZERO CRASHES

Despite massive improvements in traffic safety, 1.2 million people are still killed in traffic every year. Therefore, every year is a safety year at Volvo Cars. Volvo Cars works continuously on enhancing safety, not only for the occupants of its cars, but also for those in their vicinity. At Volvo Cars, safety has been a founding principle and living philosophy since 1927. Volvo Cars' history is full of world-leading safety innovations – from the three-point safety belt and rear-facing child car seat, to active safety solutions such as City Safety and Pedestrian & Cyclist Detection with full auto brake. The company is dedicated to keep on creating innovative and smart safety solutions that interact with each other and also address other road users such as pedestrians and cyclists. Volvo Cars' safety vision is to design cars that should not crash. The aim for 2020 is that no one should be killed or seriously injured in a new Volvo car.

Internationally, Volvo Cars is regarded as the role model for traffic safety and the company is proud of that. This perception is based on products as well as on the company's commitment to safety. This has resulted in an extensive range of so-called IntelliSafe technology. The company strives for top performance, in real traffic situations as well as in official safety ratings. All Volvo cars, accessories and relevant services must not only meet, but exceed, customers' expectations when it comes to safety. Volvo Cars will further strengthen this commitment and maintain leadership in safety by:

- creating safety features in an intelligent and innovative way based on real traffic situations
- helping to prevent collisions and reducing injuries when a collision is unavoidable
- maintaining industry-leading competence in safety.

SAFETY GOVERNANCE

Product safety development is incorporated in every phase of a Volvo car life cycle. Volvo Cars' policies stipulate the responsibility to ensure adherence to the company's procedures and to legal requirements. Volvo Cars strives to understand how and why different traffic situations occur. The company's Traffic Accident Research Team, established in 1970, has collected accident data from more than 40,000 accidents involving Volvo cars in Sweden. The Volvo Accident Database shows that the risk of being injured in recent Volvo models has decreased by two-thirds compared to the risk of being injured in old car models. The company's close collaboration with the Swedish insurance company Volvia has also helped provide detailed information about incidents and the outcome of accidents with new Volvo cars in Sweden. Volvo Cars applies this valuable information when designing new cars. Performing accident reconstructions in Volvo Cars' state-of-the-art crash laboratory provides

additional, unique knowledge. This working method helps the company to decide what areas to focus on in a car to further enhance safety for customers.

SAFETY PERFORMANCE

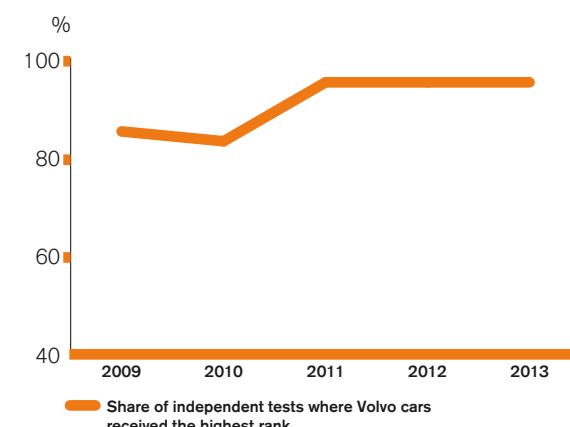
Volvo Cars' customers can monitor their cars' safety performance through independent rating programmes. Laboratory crash tests are executed by rating institutes, and field performance based on real-life accident data is provided by, for example, insurance companies.

In 2013, there were no incidents of non-compliance with regulations and voluntary codes concerning health and safety impacts of products and services which resulted in a fine or penalty.

SAFETY RESEARCH

Volvo Cars bases its research on a variety of parameters, with the ultimate aim of finding new technologies to help fulfil the Volvo Cars' Safety Vision: "Cars should not crash. In the shorter perspective the aim is that by 2020 no one should be killed or injured in a new Volvo car." It is therefore essential to carry on the company's long history of obtaining unique data from investigating actual road accidents and incidents. In the European Field Operational Test on active Safety Systems (EuroFOT) project, for example, Volvo V70 and XC70 cars are equipped with cameras and computers to monitor the driver's behaviour. This is done to gather knowledge on how drivers react in complex traffic situations. The DRIVE C2X research focuses on communication among and between vehicles and roadside and back-end infrastructure system.

INDEPENDENT SAFETY TEST RESULTS^{1,2)}



¹⁾ The figures include test results from the following test bodies: Euro NCAP, US NCAP, China NCAP, NCAP, IIHS, and Folksam.

²⁾ Restated due to change in calculation methodology.

Other examples of safety research areas in focus are:

- autonomous drive
- staying safely in the current lane
- avoiding accidents in more situations such as crossroads and intersections
- avoiding collisions with wild animals
- adaptive occupant protection.

Working with vehicle safety within Volvo Cars requires different type of competences. Among other partners, Volvo Cars works with academia to make sure the company can make use of the best brains available. Within Volvo Cars Research and Development, there is a range of special competencies ranging from PhD students to adjunct professors. They are involved in areas such as driver behaviour, the human-machine interface, biomechanics, automatic control and advanced materials.

Volvo Cars actively disseminates its knowledge to its stakeholders. For example, external competence development campaigns are directed towards Volvo Cars' dealers. The company also organizes seminars and lectures for journalists and government authorities on how Volvo Cars works with vehicle safety.

COLLABORATION FOR ENHANCED SAFETY

Volvo Cars acknowledges that it cannot find solutions in isolation. The company therefore aims to build and nurture open partnerships with a wide range of societal stakeholders. Some examples of Volvo Cars' collaboration with partners on specific projects are listed below.

Drive-Me – Self-driving cars for sustainable mobility

The ground-breaking project "Drive Me – Self-driving cars for sustainable mobility" is a joint initiative between Volvo Cars, the Swedish Transport Administration, the Swedish Transport Agency, Lindholmen Science Park and the City of Gothenburg. The "Drive Me" project is endorsed by the Swedish Government. The aim is to pinpoint the societal benefits of autonomous driving and position Sweden and Volvo Cars as leaders in the development of future mobility. See pages 22 and 48 for more information on this project.

Chalmers University of Technology

Volvo Cars' cooperation with Chalmers University of Technology has the aim of sharing knowledge about car safety and creating a forum where the company can gain knowledge itself. The SAFER project is a platform in which different stakeholders can channel research issues relating to

safety as well as obtain further qualifications in safety research. Volvo Cars' employees, students, researchers and teachers meet here to discuss traffic safety at an academic level.

The China–Sweden Research Centre for Traffic Safety in Beijing

This Research Centre focuses on a number of areas, such as improving traffic safety in Sweden and China and promoting the exchange of technology and knowledge between both countries. The Centre also acts as a platform for research into traffic safety and supporting government decision-making in matters relating to traffic safety.

Apart from Volvo Cars, the other research partners in this project are Volvo Group, Chalmers University of Technology in Gothenburg, the Chinese Ministry of Transport's Research Institute of Highway and Tongji University in Shanghai.

Partnership with China Automotive Technology and Research Centre (CATARC)

In 2013, Volvo Cars and CATARC agreed on joint research and discussions on three key areas: safety, environment, and well-being (cabin air quality solutions), thereby taking into account the environmental situation, traffic conditions and consumer demands in China. In this cooperation, Volvo Cars shares its global experience and knowledge with CATARC in order to promote better understanding of new possibilities in the three key areas. Both parties co-host seminars to discuss common goals and a technology roadmap with regard to new solutions, standards, regulations and policy development in the industry.

FAIR COMPETITION

Volvo Cars is committed to comply with competition and anti-trust laws, and fair competition is vital to the company's success. Volvo Cars wants to compete vigorously and aggressively – but fairly and without any anti-competitive understandings or agreements with competitors. The company also expects its business partners such as dealers and other independent businesses engaged in selling the company's products to comply with competition laws that apply to them. Such competition laws protect the distributors' right to conduct their business independently. The Corporate directive "Compliance with Competition Laws" is Volvo Cars' guiding policy for anti-competitive behaviour, anti-trust and monopoly practices. It summarizes the principles that should guide employee conduct in relationships with competitors, customers and suppliers. The Volvo Cars' Code of Conduct, being an important guiding



SAFETY HIGHLIGHTS 2013

In 2013 new Volvo models are available with the very latest safety technology, such as City Safety as standard equipment, Collision Warning with Full Autobrake and Pedestrian Detection, Adaptive Cruise Control and the activation of Inflatable Curtain (IC) also active in several types of angled frontal collisions.

Drive Me: In 2013, Volvo Cars initiated a Swedish pilot project with self-driving cars on public roads – the first project of its kind in the world. The ground-breaking project "Drive Me – Self-driving cars for sustainable mobility" is a joint initiative between Volvo Cars, the Swedish Transport Administration, the Swedish Transport Agency, Lindholmen Science Park and the City of Gothenburg. The aim is to find answers to all questions related to self-driving cars in order to make implementation a reality.

Top ranked in the Folksam safety report 2013: Volvo Cars' leadership in safety was further supported by a safety report of the Swedish insurance company Folksam in September 2013. The report put four Volvo models – the S60, V60, V70 and S80 – at the top of the ranking by an extensive margin, close to 60 per cent lower injury risk compared to the average modern car in Sweden. The Folksam study evaluates the safety performance of 238 car models involved in 158,000 accidents that were reported to the Swedish police between 1994 and 2013. The information is combined with medical reports about 38,000 injured persons in traffic accidents between 2003 and 2013.

Volvo Cars' third edition of "Children & Cars – a Safety Manual": This award-winning manual provides parents all over the world with guidance on how their children can travel safely in the car. The new child safety manual is available at Volvo dealers globally and can also be downloaded via this link: http://esd.volvocars.com/site/TopNavigation/About%20Volvo/Safety/safetymanual2013_eng.pdf

The Volvo V40 received a five-star rating with an overall score of 58.2 points in the 2013 China NCAP test. The overall result is the best in the passenger car category since the protocol was upgraded in 2012. The Volvo V40, which comes standard equipped with Volvo Cars' ground-breaking whiplash protection system (WHIPS), achieved a top result in this test as well as the side impact test. The V40 was also given a top ranking in the Euro NCAP Autonomous Emergency Brake (AEB) tests. The V40 is the overall record holder in the Euro NCAP programme.

The Volvo S60, XC60 and V40 top results in new front crash prevention ratings: Two new test programmes for rating the Front crash prevention system were introduced: in Europe by Euro NCAP and in the US by US Insurance Institute for Highway Safety (IIHS). Both rating institutes tested different new Volvo models with the standard equipped City Safety system as standalone and also in combination with the optional Collision Warning with Full Autobrake system. The combined Volvo City Safety/Collision Warning with Full Autobrake and the standalone City Safety system received top result in both ratings. The safety systems were tested by Euro NCAP in Volvo V40 & S60 and by IIHS in Volvo S60 & XC60.

Volvo S60, XC60, S80 and XC90 have an IIHS Top Safety Pick+ in the United States in 2013. All four Volvo cars achieved Top Safety Pick+ results including good performance in the Small Overlap Front test, which replicates what happens when the front corner of a vehicle strikes another vehicle or object, such as a tree or a utility pole – a very severe crash situation. In the test, 25 per cent of the front end on the driver's side strikes a 5-foot-high rigid barrier at 40 mph (64 km/h).

Volvo Cars with auto brake technology passed the one million sales in July 2013. The low-speed City Safety system is standard in all new Volvo models on all markets. Most Volvo models are also available with state-of-the-art technologies that detect, warn and brake automatically for the rear end of vehicles as well as, for example, pedestrians and cyclists swerving out in front of the car.

A world first was introduced – Pedestrian and Cyclist Detection with full auto brake, detects and automatically brakes for cyclists swerving out in front of the car. According to accident data, about 50 per cent of all cyclists killed in European traffic have collided with a car. The new advanced software, including more rapid vision processing, has made it possible to extend the present detection and auto brake technology to also cover certain cyclist situations. The technology also covers vehicles driving in front in the same direction.

Car 2 Car communication enables vehicles to communicate with other vehicles and with the traffic environment, opening up fantastic possibilities. Vital information can be shared and exchanged – creating a safer and more comfortable and drive. The technology is based on communication between transmitters in vehicles and the road infrastructure, such as road signs and traffic lights. The technology has been tested and demonstrated successfully.

The new Active Safety Test facility is being built next to Volvo Cars' existing proving ground at Hälleröd, Sweden and operated by the company Active Safety Test Area AB (ASTA). The new facility will open in 2014 and will provide Volvo Cars with tools for the development of tomorrow's intelligent safety and driver support systems. It plays an important role for Volvo Cars' continued leadership in the field of safety.

2013 Global NCAP Innovation Award. Volvo Cars' pioneering work on pedestrian protection was rewarded with the "2013 Global NCAP Innovation Award" in May. The award recognized a number of ground-breaking pedestrian protection systems developed by Volvo Cars in recent years, such as Pedestrian Detection with full auto brake and the world-first Pedestrian Airbag Technology on the Volvo V40.

document for our employees, also explains the company's policy on anti-trust, equal competition and integrity, especially with regard to relations with governments, suppliers, business relations and the use of company information and community involvement and overall non-compliance. No legal actions for anti-competitive behaviour, anti-trust or monopoly practices were initiated against Volvo Cars in 2013. The company has not identified any non-compliance with laws and regulations in 2013.

AUTOMOTIVE REGULATORY COMPLIANCE

Laws and regulations concerning cars and car parts are complex. Requirements can vary by region and market and change within short periods. It is therefore crucial to have a good understanding of the scope and the impact of regulatory requirements in every country a Volvo product can be bought. By managing regulatory requirements the company minimizes the risks of being late to adapt to the market or to suffer the effects of non-compliance. Volvo Cars has the aim of always going beyond regulatory compliance (in particular in the safety area) – the Volvo Standard defines internal requirements for the different parts and functions of its car models.

Volvo Cars manages automotive regulatory compliance along three pillars. The Volvo Regulatory Affairs Department constantly monitors automotive regulatory developments and makes sure that information is made available to all relevant functions within the organization. The Regulatory Compliance Project Team acts as an interface towards R&D to ensure the regulatory compliance of research and development projects. The Certification Group on the other hand handles type approval and homologation processes, during which Volvo cars (and car parts) are approved by authorities in order to be registered for sale.

Volvo Cars is in constant dialogue with authorities and government agencies in all our markets and aims to build strong links with authorities of other markets worldwide. Volvo Cars also participates in different external working groups, which discuss regulatory changes and the implications thereof. Furthermore, Volvo Cars contributes to policy and legislation development on all major markets. For more information see the section on "Public authorities and politicians" on page 55.

In 2013, Volvo Cars did not receive any significant fines for non-compliance with laws and regulations concerning the provision and use of Volvo Cars' products and services.

PRODUCT LABELLING AND OWNER MANUAL

Volvo Cars actively informs customers about risks, hazards and the proper use of its products and services. All car models are required by law to have safety-related labels regarding airbags, fuel type and tyre pressure. Moreover, there are additional labels that are required by specific markets only, such as fuel economy labels for China, the USA and Canada. Besides labelling information, Volvo Cars' website provides extensive technical information for each car model, such as fuel consumption

and CO₂ emissions. Volvo Cars also issues recycling information and comprehensive safety information about the safety rating of its products.

Volvo Cars provides each customer with an owner manual. This includes guides for energy conservation while driving as well as safety information, e.g. about airbags, child seats and safety belts. Labels and information provided in the owner manuals are verified during the product development process by both company audits and government authorities within the homologation process. This is done to ensure that all customers worldwide receive accurate information.

Volvo Cars also publishes information on particular topics. For example, in 2013 the company issued a safety manual "Children & Cars" (downloadable at http://esd.volvcars.com/site/TopNavigation/About%20Volvo/Safety/safetymanual2013_eng.pdf) to help all those who carry child passengers – parents, taxi drivers, or anyone else – gain a better understanding of child safety matters.

MARKETING OF PRODUCTS AND SERVICES

Volvo Cars' in-house guidance states that all products and services shall be marketed and sold in a fair and honest manner. Marketing of products and services, dealer marketing included, should always comply with national legislation and be conducted in an honest and fair manner in relation to the characteristics of the product or service. Volvo Cars' Corporate Marketing Instruction provides guidance on the preparation and documentation of the company's advertising and PR material, such as, but not limited to, press releases and launch material. The instruction reaffirms the commitment of the company that its advertising and PR material shall be accurate, truthful and in good taste. Volvo Cars Corporate Marketing Instructions were produced in accordance with applicable laws and regulations, and in line with its own applicable guidelines.

Volvo Cars continuously reviews its marketing. This responsibility lies within Global Communications and Safety Communication departments supported by Group Legal. Each market worldwide is responsible for its own marketing and for ensuring that marketing initiatives are carried out in accordance with the company's Marketing Instruction. There were no incidents of non-compliance with regulations and voluntary codes concerning marketing communications during 2013.



FUTURE MOBILITY

WE WILL LEAD THE DEBATE AND ACTIVELY INNOVATE SO THAT SUSTAINABLE MOBILITY IS AN ATTRACTIVE, SCALABLE AND TANGIBLE SOLUTION.

OUTLOOK

Motor vehicles and other forms of transport have a significant impact on the environment and on our society. Volvo Cars' overriding objective is therefore to develop cars that are both safe and environmentally sound. Volvo Cars acknowledges that it cannot do this alone. The company is however determined to lead the debate and actively innovate so that sustainable mobility is an attractive, scalable and tangible solution now and in the future. The company is pursuing this by introducing electrification, increasing fuel efficiency and the use of renewable fuels in conventional cars and making its manufacturing processes as efficient and sustainable as possible.

Volvo Cars also aims to offer cars that are safe for all people in all imaginable traffic situations. The company's aim for 2020 is that no one should be killed or severely injured in a new Volvo car. Achieving this will be challenging and the key to success in this respect is to design safety systems that are smart and that interact with one another. Current data

shows that the company is on the right track to fulfil the vision and the short-term aim for 2020.

The new test facility Active Safety Test Arena (ASTA) will provide Volvo Cars with tools for the development of tomorrow's intelligent safety and driver support systems and play an important role for Volvo Cars' continued leadership in the field of safety.

AUTONOMOUS DRIVING

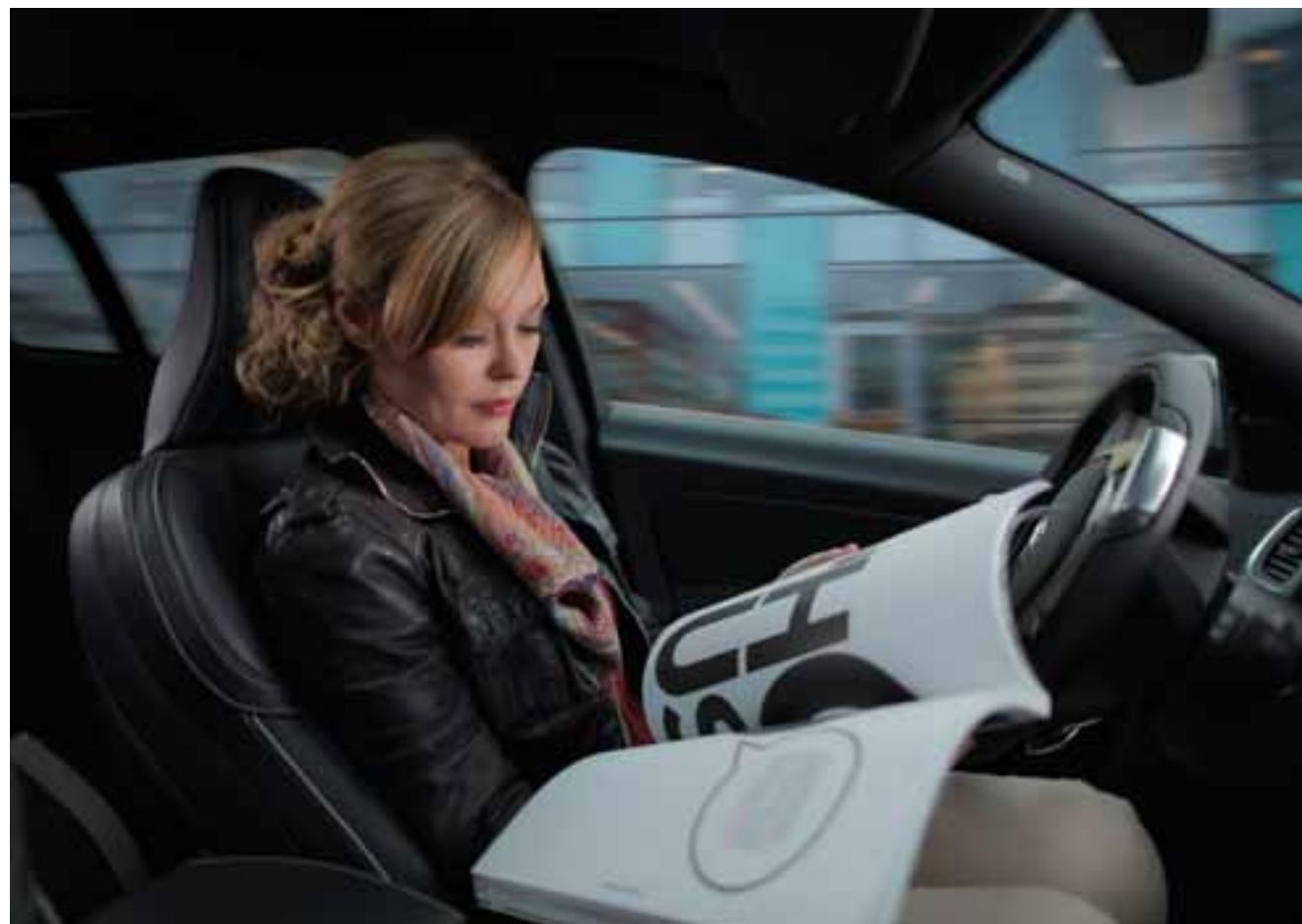
Volvo Cars is working towards developing autonomous driving technologies – not only for the sake of safety, but also because it has positive impacts on customers, society and the environment. The present systems for auto braking, lane keeping aid and adaptive cruise control are examples of the first steps towards autonomous driving. The next step is technology that follows the car in front at higher speeds, allowing the driver to take their hands off the steering wheel while still surveying the drive. This in turn paves the way for the introduction of



Highly Autonomous Cars that hand over responsibility to the vehicle, which handles all driving functions at the driver's discretion.

Pioneering technologies involving extensive use of driver support systems will not only help Volvo Cars realize its safety vision but also bring strong societal and consumer benefits. Modern society faces extensive future challenges to improve safety, and reduce pollution and global CO₂ emissions. Impaired mobility and congestion can be added to the list of challenges. Autonomous driving can cut fuel consumption by up to 20 per cent in certain situations but it will also carry significant consumer benefits. The future Volvo driver will be able to plan their drive with a mix of autonomous and active driving, allowing for efficient use of the daily journey. Drivers could safely interact via phone or tablets or simply relax. Autonomous driving safely thereby paves the way for more efficient time-management behind the wheel.

For more information and a short video on the sustainability of autonomous driving, see: www.media.volvcars.com.



VALUE CHAIN MANAGEMENT

Ongoing and trustful interaction throughout Volvo Cars' value chain is key to providing guidance on how the company will develop and work with sustainability. In this report, Volvo Cars highlights the interaction with the company's suppliers and dealers.

SUPPLIER MANAGEMENT AND KEY FACTS

Volvo Cars has approximately 500 business partners delivering production material for serial production and roughly 3,500 suppliers delivering indirect products and services. Volvo Cars' top 10 direct material supplier countries in 2013 are, in the order of suppliers per country: Sweden, Germany, United States, China, France, Great Britain, Italy, Japan, the Netherlands and Belgium. China has moved up from 6th place to 4th place, from 6 per cent in 2012 to 11 per cent in 2013. The graph below shows Volvo Cars' direct material supplier countries (top 10 supplier countries) for 2013.

Volvo Cars aims to be recognized as among the leaders in the automotive industry for its work with sustainability in the supply chain. The total life cycle of its products and their environmental footprint is very important to Volvo Cars, as is respecting and honouring human rights. The Senior Vice President Purchasing & Manufacturing is responsible for supporting and managing environmental and social responsibility related to the supply chain.

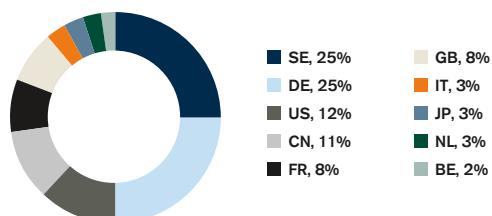
In 2013, the Purchasing Department at Volvo Cars established a new strategy for how Purchasing will integrate sustainability within the supply chain and internally. The foundation of the strategy is to incorporate and adapt sustainability activities into Purchasing's day-to-day processes and tools.

SUSTAINABILITY COUNTRY RISK ASSESSMENT

In 2012, Volvo Cars Purchasing developed a risk country model. This model is used for rating Volvo Cars' supplier countries and countries for potentially new suppliers from a risk point of view. The model is a segmentation model from a Social Responsibility perspective and assesses countries based on four aspects:

- conflict or extreme political instability
- lack of democracy, civil and political rights
- living standard
- corruption.

TOP TEN SUPPLIER COUNTRIES



The model is valid for Direct Material (DM) and Indirect Purchasing (IDP) based on countries. The risk country model assessments are updated annually. They are mainly used to prioritize activities such as supplier training and supplier audits. Because of the extensive variety of purchased commodities in the IDP supplier category, Volvo Cars uses two additional models: a risk rating model related to the suppliers environmental impact at Volvo Cars operations and a social responsible risk rating model on commodity level.

SOCIAL AND ENVIRONMENTAL REQUIREMENTS ON SUPPLIERS

Volvo Cars' sustainability requirements on suppliers are formulated in its Terms and Conditions for suppliers, its Code of Conduct and its Social Responsibility and Environmental web guides. All suppliers and their subcontractors are expected to comply with the parts of the Volvo Cars Code of Conduct applicable for suppliers and business partners.

- In accordance with the Code of Conduct, Volvo Cars' requirement on suppliers is that no child labour or physically abusive disciplinary practices are allowed and suppliers shall not engage in any act or omission that could possibly be construed as giving or taking a bribe, or in any other kind of corruption. (See page 35 for more information on the Code of Conduct.)
- DM suppliers are required to be third party certified according to the environmental management system ISO 14001.
- DM suppliers shall comply with substance use restrictions detailed in the Volvo Cars' Restricted Substance Management Standard (RSMS).
- Suppliers are obliged to adhere to chemical legislations to be able to put substances, preparations or articles on intended markets.
- A self-assessment must also be filled out by each supplier and sent to Volvo Cars upon request.

All requirements on Volvo Cars' suppliers are communicated through Volvo Cars' Supplier Portal. The legal documents and requirements are also distributed in connection with the sourcing process. Since its introduction in 2010, Volvo Cars has registered 1,000 suppliers in its Supplier Portal. During 2013, 120 new suppliers signed up as users.

ASSESSING, EVALUATING AND AUDITING SUPPLIERS

To manage the environmental and social impact of its supply chain, Volvo Cars assesses, evaluates and audits its suppliers.

Assessing suppliers

Volvo Cars' Manufacturing Site Assessment (MSA) evaluates whether a supplier is performing up to customer expectations regarding manufacturing quality requirements. The MSA is performed by the Supplier Quality Management Department and reviews the fundamental areas of the supplier's site's manufacturing processes and metrics. The assessment also includes areas related to health and safety, risk

management and environment. MSA is conducted for new suppliers before sourcing and on a recurring basis for existing suppliers.

Evaluating suppliers

An updated Supplier Evaluation Model was introduced in the fourth quarter of 2013. Aspects concerning working conditions and business ethics were added and the environmental section was extended. The new sections are included as evaluation parameters when considering the selection of new and current suppliers. The model can be performed at all potential or current suppliers. For IDP suppliers, the model shall be performed as a prerequisite for the Volvo Quality Excellence Award (see below).

Auditing suppliers

In 2013, Volvo Cars conducted a pilot project of 15 supplier sustainability audits, consisting of five indirect IDP suppliers (in Sweden) and 10 DM suppliers (eight in China, one in Romania and one in Morocco). The supplier audits assessment criteria are based on Volvo Cars' Working Condition & Environment Audit Checklist. Areas covered in these assessment criteria are labour conditions, business ethics, health and safety (including risk management and emergency preparedness), environment, compliance and management system.

DM suppliers participating in the pilot were selected according to Volvo Cars' risk country model and a variety of aspects such as supplier size, ownership structure and technical commodity. This resulted in a mix of small/large, locally owned/Joint Venture and diverse commodities (electric, interior, exterior, powertrain and chassis). IDP suppliers selected for audits included service suppliers from different commodities with employees working within Volvo Cars premises. These suppliers, located in Sweden (although some are internationally owned), were also part of the SMETA audit conducted in autumn 2012 (see page 54).

During 2014, Volvo Cars' Purchasing Department will focus on further developing the audit processes and closing conducted sustainability audits findings together with the suppliers. This process will involve Purchasing Department employees from around the globe. In 2014, Volvo Cars' Purchasing Department will continue with activities along with suppliers to enhance sustainability in the company's global supplier base.

SUPPLIER AWARDS

Volvo Cars' requirements on quality, product development, cost efficiency, delivery capacity and environmental care are high. To

encourage suppliers to live up to these requirements, the company has initiated two award schemes for suppliers.

Volvo Cars Quality Excellence Award

Quality is one of Volvo Cars' main priorities. To let suppliers understand exactly where they stand in relation to Volvo Cars' requirements and help them achieve continuous improvement, the Volvo Cars Quality Excellence Award (VQE Award) was introduced in 2012. Volvo Cars wants their suppliers to meet the VQE requirements. This means that the suppliers' facilities have to achieve excellence in the following areas: capable systems, capable manufacturing process, ongoing performance, customer plant impact and customer endorsement.

The VQE Award is made up of 11 award performance elements and a 12th complementary element for the final award step: customer endorsements. Fundamental requirements include environmental certification according to ISO 14001 and quality certification pursuant to ISO TS 16949. VQE also comprises quality assurance of suppliers' manufacturing processes, working environment and monitoring suppliers' quality and delivery performance. A total of 212 DM supplier sites and 34 IDP suppliers have been awarded VQE certification since the VQE awards were introduced.

Volvo Cars Award of Excellence

In 2013, Volvo Cars reintroduced the Volvo Cars Award of Excellence; an award that was last handed out in 2011. This award acknowledges top-performing suppliers who have gone the extra mile together with the company. Only the best suppliers are invited to participate in Volvo Cars Award of Excellence. The objective is to reward above-average efforts and encourage further improvements. Winners are named in each of the categories Environmental and Social responsibility, Technology, Quality and Cost competitiveness. Seventy DM and IDP suppliers were nominated to apply for each category. Volvo Cars presented six Volvo Cars Award of Excellence awards in 2013 including a "Special Award" which suppliers could not apply for and is given only to suppliers that have achieved an extraordinary performance during the year.

In 2013, the supplier that won the Volvo Cars Award of Excellence 2013 for outstanding achievements in environmental and social responsibility was recognized for its sustainable operational practices and technical solutions for the fuel emission savings used in Volvo Cars Start-Stop vehicles. Start-Stop vehicle engines power off when the vehicle has come to a stop, reducing fuel consumption by as much as 8 per cent.



SUPPLY CHAIN MANAGEMENT TRAINING

In 2013, Volvo Cars' Purchasing Department reworked the concept for mandatory training of new employees. The new concept includes a high-level introduction combined with separate modules on social as well as environmental responsibility. During the year, 58 new employees participated in social responsibility training. Additional open lunch seminars about social and environmental responsibility were held and approximately 50 employees attended.

During 2013, 150 employees at Volvo Cars' Purchasing Department in China participated in Environmental Care Awareness training. This training focuses on increasing knowledge on the requirements on suppliers and working procedures, tools to use within purchasing processes and highlighting the benefits of environmental responsibility in the supply chain.

No specific supplier training was conducted during 2013. However, sustainability information was presented at supplier town hall meetings, one in Gothenburg, Sweden and one in Chengdu, China. For more information on supplier training see "Industry collaborations and networks" below.

DEALERS

Dealers are the place for selling as well as servicing Volvo vehicles. Besides new and used car sales, Volvo dealers also sell accessories, extended warranties, finance and insurance products. As of 31 December 2013 Volvo Cars had around 2,300 dealers in approximately 100 countries.

Volvo Cars works intensively to make the customers' everyday lives easier and build strong, long-term relationships with dealers. Every dealer must meet the Volvo Cars Dealer Standards, which include environmental issues among other requirements. The dealer must also appoint an environmental coordinator who is responsible for the safe storage of chemicals, recycling and source sorting. In 2011, the Dealer Development Portal (DDP) was launched. The DDP is the platform on which Dealer Standards are managed, monitored and reported. The dealers can access the DDP, study and follow the guidelines and requirements which will then be measured and audited through an independent third party.

At Volvo Cars' global competence centre in Gothenburg, representatives of the national sales companies are trained and issued with information that they then transfer to the dealers of their respective market. The company's training system is well developed and includes everything from new car introductions and repairs to work processes and service issues. For example, when a new car model is being introduced, dealers are informed about the new active safety systems in the car.

INDUSTRY COLLABORATIONS AND NETWORKS

To the extent legally allowed, Volvo Cars works actively together with industry peers and organizations to achieve a more sustainable supply chain for the automotive industry as a whole.

Automotive Industry Action Group

Volvo Cars is a member of the Automotive Industry Action Group (AIAG), a not-for-profit association of companies involved in the automotive industry. Together with other automotive original equipment manufacturers, AIAG has provided "Supply Chain Responsibility training" in previous years. The plan is to carry out such supplier training in China in 2014 in order to increase the focus on sustainability.

European Working Group on Supply Chain Sustainability

The European Automotive Working Group on Supply Chain Sustainability consists of several automotive manufacturers working together – in addition to their own efforts – to enhance sustainability in their supply chains. The working group believes in the benefits of a common approach and common messages towards suppliers, i.e. training and other activities. Every company of the group retains the management of its independent supply chains. In the process of collaboration, the participants acknowledge the importance of being legally compliant and accordingly agree to work together only to the extent permissible under relevant competition laws and regulations.

EXTERNAL AUDITS OF VOLVO CARS

As a holder of ISO 9001 and 14001 certificates, Volvo Cars is audited on regular basis by an independent certification organization. Volvo Cars is also audited regarding conformity of production and products with laws and regulations by various authorities (for more information on homologation see "Automotive regulatory compliance" on page 49).

In 2012, Volvo Cars went through and passed an external audit regarding ethical trade. The audit was requested by a global company, as part of their fleet car procurement procedure. This audit was based on the Sedex SMETA four pillars model, which includes environment, labour standards, health and safety and business practice. Sedex stands for Supplier Ethical Data Exchange. Sedex is a not-for-profit membership organization dedicated to driving improvements in ethical and responsible business practices in global supply chains, and SMETA is Sedex Members Ethical Trade Audit. The audit raised 10 non-conformities, four observations for self-monitoring, and 10 good examples. The non-conformities and observations were handled by responsible functions according to Volvo Cars' procedures and were closed during 2013.

Volvo Cars also participates in independent sustainability ratings and similar platforms assessing sustainability performances. In 2013, for example, Volvo Cars was awarded a Gold Level in the EcoVadis assessment. The results of such ratings are carefully analyzed and implementation measurements are discussed.

SOCIETAL ENGAGEMENT

All units within Volvo Cars communicate directly or indirectly with society as part of their ongoing business processes. As a company, Volvo Cars relates to society through the stakeholder groups that influence and are influenced by its operations, knowhow, products and brand. In this context, Volvo Cars' definition of society is confined to the following main stakeholder groups:

- public authorities and politicians;
- NGOs (non-governmental organizations) and international organizations;
- university and the educational community;
- the media;
- local communities; and
- industry networks.

Volvo Cars continuously exchanges information and ideas with these groups through ongoing dialogue and other forms of communication. But the company aims to do more than exchange information and ideas; it acknowledges that it cannot find solutions in isolation. Volvo Cars therefore aims to build and nurture open partnerships with societal stakeholders. This cooperation is essential if Volvo Cars is to gain the knowledge and understanding it requires to develop the cars that society needs and to act as a responsible company.

PUBLIC AUTHORITIES AND POLITICIANS

As a company, Volvo Cars is affected by political decisions, rules and regulations that are made in all countries in which the company operates. Therefore, Volvo Cars works continuously to establish access to politicians, authorities and institutions through dialogue. This is done in order to obtain information on important legislation and regulations that impact the company's strategic decisions and plans. Through these dialogues, Volvo Cars shares specific knowledge and experiences that the company believes will drive societal developments in a favourable way. In dialogue with public stakeholders, Volvo Cars uses position papers, which are constantly updated to ensure they have a consistent message. Topics covered include safety, mobility, emissions and research.

Volvo Cars has well-established relations with a number of authorities within the EU and various individual countries in order

to promote a good dialogue between the industry and the political arena. Dialogue with the Chinese authorities is focused mainly on identifying solutions to mobility-related problems, with particular reference to aspects involving safety and the environment. Volvo Cars does not make any direct financial or in-kind contributions to political parties or politicians. Volvo Cars is, however, a member of the industry organizations ACEA and the Alliance of Automobile Manufacturers (Auto Alliance), whose goals are to develop and implement constructive solutions to public policy. In this work, membership fees may be used in political contributions.

NGOS AND INTERNATIONAL ORGANIZATIONS

Volvo Cars regards established, independent and credible NGOs and intergovernmental organizations (IGOs) as important drivers for sustainable development. NGOs help to change attitudes by getting involved and moulding public opinion on major societal issues, thus driving sustainable development forward. Volvo Cars' relations with NGOs and IGOs are based primarily on knowledge exchange and partnerships in which the company is responsive to their standpoints and criticism.

Volvo Cars is also a member of a number of trade and interest organizations for car manufacturers in the countries we operate in.

UNIVERSITIES AND EDUCATIONAL COMMUNITY

Volvo Cars believes that in-depth partnerships with both universities and schools offer a fast way to develop knowledge. This is also an important step in ensuring the company attracts future employees with the right competence. During 2013, Volvo Cars was involved in several research programmes with partners. Many of these partners are universities and schools and the knowledge gained from these projects can also be used in other areas outside Volvo Cars. The main external funding comes from projects within the Swedish Strategic Vehicle Research and Innovation programme. For examples of such projects, see pages 24, 44 and 47 and <http://www.vinnova.se/en/FFI---Strategic-Vehicle-Research-and-Innovation/>.

Volvo Experience Programme

The Volvo Experience Programme is a collaboration between Volvo Cars and the Swedish Employment Service aimed at offering work experience to young people aged between 18 and 24. The initiative began when the Volvo Cars CEO, Håkan Samuelsson, began to investigate the possibility of supporting young people.

The first group included 15 young people, and the second group added another 16 in Gothenburg, and 4 in Olofström. The aim is to give 150 young people each year the opportunity to work for Volvo Cars. The initiative began with office-based positions, but eventually it will include all facilities.



The target group includes those who have been unable to complete high school but are eager to start working. The Volvo Experience Programme runs for a period of six months. During the first three months, the young participants are given placements through the Swedish Employment Service, and if everything goes well, their time is extended by a further three months as Volvo Cars employees. This complies with the rules that apply to labour market initiatives and is designed so that the young people involved do not lose any benefits or experience disruption in terms of other types of support.

MEDIA

Since the media are the channels of communication that penetrate furthest into all areas of society, an open and honest relationship with them is important to Volvo Cars. Although the company cannot control the media or influence what is written, it can produce and supply them with accurate information on products, methods and experience. All press releases are publicly available at: <https://www.media.volvcars.com>.

LOCAL COMMUNITIES

In communities where Volvo Cars is a major employer, the company holds regular meetings with local authorities. The company informs the authorities of its plans and learns how the community seeks to develop. Volvo Cars also assesses opportunities for cooperation, such as the partnership with the city of Gothenburg, that was established in 2013.

Apart from authorities, Volvo Cars also aims to communicate with members of the local communities in which its main operations are located. An example is the Volvo Cars Visitor Centre in Gothenburg, Sweden, which welcomes about 30,000 visitors every year.

INDUSTRY NETWORKS

Volvo Cars is involved in a number of industry networks. Volvo Cars' membership of the Swedish Network for Business and Human Rights is an example of such a cross-sectoral network. This network focuses on exchanging best practices when it comes to business and human rights, in order to stay abreast of the rapid developments within this field. Members in the network include some of Sweden's leading companies when it comes to human rights: Alfa Laval, Electrolux, H&M, ICA, Oriflame, SCA, Sandvik, Scania, Stora Enso, TeliaSonera, Vattenfall and Volvo Car Group.

SPONSORSHIP AND DONATIONS

Volvo Cars supports a broad range of projects, initiatives and events in sports, culture and youth development. Volvo Cars aims to build brand ambassadors and apply Good Corporate Citizenship practices by sponsoring initiatives, but avoids long-term endorsements of individuals. The overall intention is to have a long-term approach and commitment towards the initiatives sponsored by Volvo Cars.

Volvo Ocean Race

The Volvo Ocean Race is the world's pre-eminent round-the-world yacht race and one of the most coveted prizes in the sport. The Race is an event jointly organized by Volvo Cars and the Volvo Group. Volvo Ocean Race is an important tool in Volvo Cars' marketing, aiming to develop brand attraction and consideration to buy. During the Ocean Race, Volvo Cars aims to raise awareness on environmental issues by conducting specific communication campaigns and research projects. In previous years, such projects focused for example on clean marine environments,



the protection of albatrosses and avoiding carrying invasive species into ships' ballast.

Volvo In Golf

Volvo Cars, jointly with the Volvo Group, also supports golf through its "Volvo In Golf" programme. For more than a quarter of a century, "Volvo In Golf" has been an ever-growing and powerful presence in world sport. Events organized by "Volvo In Golf" include Volvo China Open – the Open Golf Championship of China.

The Volvo Adventure

In partnership with the United Nations Environment Programme (UNEP), Volvo Cars organized an international competition to encourage teenagers to identify a local environmental problem and come up with creative solutions. The global competition was aimed primarily at young people aged between 13 and 16 who took part in teams of 2 to 5 participants. At its heart, the Volvo Adventure initiative was always about extending the company's sustainability commitments beyond the bottom line and contributing to society, working alongside others.

In 2013 inspiring and creative entries were received from teenagers from over the world. The "eco-garden" initiative by students from Senior High School No. 1, in Sumbawa Besar, Indonesia, was awarded first prize. The students had observed that marine litter and other waste from their island community was damaging nearby coral reefs; an important habitat for some commercial fish species. With dwindling fish numbers, fishing boats were forced to travel longer distances out to sea, raising safety concerns due to an increase in extreme weather in the region. The young people set out to promote alternative, sustainable food sources for local fishing communities. They established an "eco-garden", using organic waste collected during coastal clean-ups to make compost. The garden is open to the public, so that islanders can learn horticultural techniques from the students, and grow and sell their own food. The students picked up a winner's cheque of US\$10,000.

In 2013, however, Volvo Cars took the decision to terminate the Volvo Adventure. The company intends to develop a new employee and community engagement programme that lies even closer to our commitments and core values.



Students from Senior High School No.1, in Sumbawa Besar, Indonesia, were awarded first prize and US\$10,000 from the Volvo Adventure.

GRI INDEX

1. Strategy and Analysis		
Indicator	Description	Page
1.1	Statement from the CEO	2
1.2	Description of key impacts, risks, and opportunities	2
2. Organizational Profile		
Indicator	Description	Page
2.1	Name of the organization	1
2.2	Primary brands, products, and/or services	7
2.3	Operational structure of the organization	6, 8
2.4	Location of organization's headquarters	6
2.5	Number/name of countries where the organization operates	6-8
2.6	Nature of ownership and legal form	6
2.7	Markets served	7
2.8	Scale of the reporting organization	6-8
2.9	Significant changes during the reporting period regarding size, structure, or ownership	6, 33
2.10	Awards received in the reporting period	5, 34
3. Report Parameters		
Indicator	Description	Page
3.1	Reporting period for information provided	Inside cover
3.2	Date of most recent previous report	Inside cover
3.3	Reporting cycle	Inside cover
3.4	Contact point for questions regarding the report or its contents	Inside cover
3.5	Process for defining report content	13
3.6	Boundary of the report	Inside cover
3.7	State any specific limitations on the scope or boundary of the report	Inside cover
3.8	Basis for reporting on joint ventures, subsidiaries, leased facilities, outsourced operations	Inside cover
3.9	Data measurement techniques and the bases of calculations	Inside cover
3.10	Effect of any re-statements of information provided in earlier reports	Inside cover
3.11	Significant changes from previous reporting periods	Inside cover
3.12	GRI Content Index	58-60
3.13	Policy and current practice with regard to seeking external assurance for the report	Inside cover
Social: Labor Practices and Decent Work		
Indicator	Description	Page
4.1	Governance structure of the organization	AR ¹⁾ , inside cover
4.2	Indication whether the Chair of the highest governance body is also an executive officer	AR ¹⁾
4.3	Number and gender of members of the highest governance body that are independent and/or non-executive members	AR ¹⁾ , 42
4.4	Mechanisms for shareholders and employees to provide recommendations or direction to the highest governance body	AR ¹⁾ , 37
4.5	Linkage between compensation for members of the highest governance body, senior managers, and executives and the organization's performance	44
4.6	Processes in place for the highest governance body to ensure conflicts of interest are avoided	AR ¹⁾
4.7	Process for determining the composition, qualifications, and expertise of the members of the highest governance body and its committees	AR ¹⁾
4.8	Statements of mission or values, codes of conduct, and principles relevant to economic, environmental, and social performance and the status of their implementation	9, 35-36
4.9	Procedures of the highest governance body for overseeing the organization's identification and management of economic, environmental, and social performance	AR ¹⁾ , 11
4.10	Processes for evaluating the highest governance body's own performance	AR ¹⁾
4.11	Explanation of whether and how the precautionary approach or principle is addressed by the organization	11, 24
4.12	Externally developed economic, environmental, and social charters, principles, or other initiatives to which the organization subscribes or endorses	11
4.13	Memberships in associations	13, 54-55
4.14	List of stakeholder groups engaged by the organization	12-13
4.15	Basis for identification and selection of stakeholders with whom to engage	12-13
4.16	Approaches to stakeholder engagement	12-13, 55
4.17	Key topics and concerns that have been raised through stakeholder engagement, and how the organization has responded to those key topics and concerns, including through its reporting	13

¹⁾ AR = Annual Report.

Cont. Social: Labor Practices and Decent Work				
Dimension		UNGC Principle	Page	
Management Approach Economic Dimension	●	1, 4, 6, 7	AR ¹⁾	
Management Approach Environmental Dimension	●	7, 8, 9	10, 18-21, 26	
Management Approach People Dimension	●	1, 2, 3, 4, 5, 6	10, 32, 35, 38-45	
Management Approach Societal Dimension	●	1, 8, 10	46, 52-54	
Economic				
Indicator	Description	Coverage	UNGC Principle	Page
EC1	Direct economic value generated and distributed	●	-	AR ¹⁾ , 15
EC2	Financial implications and other risks and opportunities for the organization's activities due to climate change	●	7	18
EC3	Coverage of the organization's defined benefit plan obligations	●	-	AR ¹⁾
EC8	Development and impact of infrastructure investments and services provided primarily for public benefit through commercial, in-kind, or pro bono engagement	●	-	16
Environmental				
Indicator	Description	Coverage	UNGC Principle	Page
EN1	Materials used	●	8	24
EN2	Percentage of materials used that are recycled input materials	●	8, 9	25
EN3	Direct energy consumption	●	8	27
EN4	Indirect energy consumption	●	8	27
EN5	Energy saved due to conservation and efficiency improvements	●	8, 9	27
EN6	Initiatives to provide energy-efficient or renewable energy based products	●	8, 9	21-23
EN8	Water withdrawal	●	8	29
EN11	Land owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value	●	8	31
EN16	Direct and indirect greenhouse gas emissions	●	8	28
EN19	Emissions of ozone-depleting substances	●	8	28
EN20	NOx, SOx, and other significant air emissions	●	8	28
EN22	Waste	●	8	29
EN23	Significant spills	●	8	30
EN26	Initiatives to mitigate environmental impacts of products and services	●	7, 8, 9	21-25
EN28	Fines and number of non-monetary sanctions for non-compliance with environmental laws and regulations	●	8	30
EN29	Significant environmental impacts of transporting products and other goods and materials used for the organization's operations, and transporting members of the workforce	●	8	30-31
Social: Labor Practices and Decent Work				
Indicator	Description	Coverage	UNGC Principle	Page
LA1	Workforce	●	-	6, 33
LA4	Employees covered by collective bargaining agreements	●	1, 3	37
LA5	Minimum notice period regarding significant operational changes	●	3	37
LA6	Workforce represented in formal joint management-worker health and safety committees	●	1	38, 40
LA7	Injuries, occupational diseases, lost days, and absenteeism, and number of work-related fatalities	●	1	39-40
LA9	Health and safety topics covered in formal agreements with trade unions	●	1	38
LA10	Hours of training per year per employee	●	-	44
LA12	Performance and career development reviews	●	-	44
LA13	Composition of governance bodies and breakdown of employees according to indicators of diversity	●	1, 6	AR ¹⁾ , 42
LA14	Ratio of basic salary and remuneration of women to men	●	1, 6	42-43

¹⁾ AR = Annual Report.

Social: Human Rights				
Indicator	Description	Coverage	UNGC Principle	Page
HR2	Significant suppliers, contractors and other business partners that have undergone human rights screening	●	1–6	53
HR3	Employee training on policies and procedures concerning aspects of human rights	●	1–6	35–36, 54
HR4	Incidents of discrimination and actions taken	●	1, 2, 6	37
HR5	Operations and significant suppliers identified in which the right to exercise freedom of association and collective bargaining may be violated or at significant risk, and actions taken to support these rights	●	1, 2, 3	35, 37
HR6	Operations and significant suppliers identified as having significant risk for incidents of child labor, and measures taken to contribute to the effective abolition of child labor	●	1, 2, 5	35, 37
HR7	Operations and significant suppliers identified as having significant risk for incidents of forced or compulsory labor, and measures to contribute to the elimination of all forms of forced or compulsory labor	●	1, 2, 4	35, 37
HR10	Operations that have been subject to human rights reviews and/or impact assessments	●	1–6	35
HR11	Grievances related to human rights filed, addressed and resolved through formal grievance mechanisms	●	1–6	36–37

Social: Society				
Indicator	Description	Coverage	UNGC Principle	Page
SO3	Employees trained in organization's anti-corruption policies and procedures	●	10	35–36
SO5	Public policy positions and participation in public policy development and lobbying	●	1–10	55
SO6	Financial and in-kind contributions to political parties, politicians, and related institutions	●	10	55
SO7	Legal actions for anti-competitive behavior, anti-trust, and monopoly practices and their outcomes	●	–	47
SO8	Significant fines and non-monetary sanctions for non-compliance with laws and regulations	●	–	47

Social: Product Responsibility				
Indicator	Description	Coverage	UNGC Principle	Page
PR1	Life cycle stages in which health and safety impacts of products and services are assessed for improvement	●	1	46
PR2	Incidents of non-compliance with regulations and voluntary codes concerning health and safety impacts of products and services	●	1	46
PR3	Product and service information required	●	8	49
PR4	Incidents of non-compliance with regulations and voluntary codes concerning product and service information and labeling	●	8	49
PR5	Practices related to customer satisfaction, including results of surveys measuring customer satisfaction	●	–	16–17
PR6	Programs for adherence to laws, standards, and voluntary codes related to marketing communications	●	–	49
PR7	Incidents of non-compliance with regulations and voluntary codes concerning marketing communications	●	–	19
PR9	Value of significant fines for non-compliance with laws and regulations concerning the provision and use of products and services	●	–	49

GLOSSARY

ACEA: The European Automobile Manufacturers Association, founded in 1991, represents the interests of the 15 European car, truck and bus manufacturers at EU level.

Code of Conduct: Principles, values, standards, or rules of behaviour that guide the decisions, procedures and systems of an organisation in a way that (a) contributes to the welfare of its key stakeholders, and (b) respects the rights of all constituents affected by its operations.

Chlorofluorocarbons (CFCs): Gases formed of chlorine, fluorine and carbon. CFCs cause the breakdown of the ozone layer that protects the earth from the sun's ultraviolet (UV) radiation.

CO₂ emissions: Carbon dioxide emissions are those stemming from the burning of fossil fuels and the manufacture of cement. They include carbon dioxide produced during consumption of solid, liquid, and gas fuels and gas flaring.

Electric cars: Automobiles that are propelled by one electric motor or more, using electrical energy stored in batteries or another energy storage device.

EuroFOT: European Field Operational Test on Active Safety Systems.

EUTS system: EU emissions trading system. The system works by putting a limit on overall emissions from high-emitting industry sectors which is reduced each year.

Flexifuel cars: Alternative fuel vehicles with an internal combustion engine designed to run on more than one fuel, usually gasoline blended with either ethanol or methanol fuel, and both fuels are stored in the same common tank.

Greenhouse gas emissions other than CO₂: water vapour, methane, nitrous oxide, hydrofluorocarbons (HFCs), perfluorocarbons (PFCs) and sulphur hexafluoride (SF6).

Global Compact: The United Nations' Global Compact is a strategic policy initiative for businesses that are committed to aligning their operations and strategies with ten universally accepted principles in the areas of human rights, labour, environment and anti-corruption.

The Global Reporting Initiative: The Global Reporting Initiative (GRI) is a non-profit organisation that promotes economic, environmental and social sustainability. GRI provides all companies and organisations with a comprehensive sustainability reporting framework that is widely used around the world.

Hazardous waste: Any waste or combination of wastes with the potential to damage human health, living organisms or the environment. Hazardous waste usually requires special handling and disposal procedures which are regulated by national and international laws.

HCFCs: Hydrochlorofluorocarbons (HCFCs) are a large group of compounds whose structure is very close to that of Chlorofluorocarbons (CFCs), but including one or more hydrogen atoms. The most significant releases of HCFCs occur as leakage from cooling appliances which contain them, both during their manufacture, use and disposal. HCFCs cause the breakdown of the ozone layer that protects the earth from the sun's ultraviolet (UV) radiation.

International Energy Agency (IEA): The IEA is an autonomous organisation which works to ensure reliable, affordable and clean energy for its 28 member countries and beyond.

ISO 14001 standard: International standard for an environmental management system that can be certified to.

LCA: Life Cycle Analysis or Life Cycle Assessment (eco balance, or cradle-to-grave analysis) is a technique to assess environmental impacts associated with all the stages of a product's life.

Natura 2000 areas: The European Union has built up a vast network of 26,000 protected areas in all the Member States with a combined area of more than 750,000 square kilometres, which makes up 18% of the EU's land area. This network is called Natura 2000 and is the largest network of protected areas in the world.

Nitrogen oxides (NOx): Nitrogen oxides refers to nitric oxide gas (NO) and nitrogen dioxide gas (NO₂) and many other gaseous oxides containing nitrogen. The main sources of these gases in urban areas are motor vehicle exhaust and indoor gas stoves and kerosene heaters. These gases are also partly responsible for the generation of ozone, which is produced when nitrogen oxides react with other chemicals in the presence of sunlight.

OECD guidelines for multinational companies: A far-reaching set of recommendations for responsible business conduct that 44 adhering governments encourage their enterprises to observe wherever they operate.

Plug-in-hybrid cars: Vehicles that utilise rechargeable batteries, or another energy storage device, that can be restored to full charge by connecting a plug to an external electric power source (usually a normal electric wall socket).

REACH: Registration, Evaluation, Authorisation and Restriction of Chemicals - a European Union Regulation addressing the production and use of chemical substances, and their potential impacts on both human health and the environment.

SARTRE (Safe Road Trains for the Environment) project: SARTRE, funded by the European Commission, aims to encourage a step change in personal transport usage through the development of safe environmental road trains (platoons).

Sulphur oxide (SO_x): An oxide of sulphur, for example sulphur dioxide or sulphur trioxide. They are formed primarily from the combustion of fossil fuels and are major air pollutants and causes of damage to the respiratory tract as well as vegetation.

Scalable Product Architecture (SPA): SPA is Volvo's new mother platform, which will allow it to manufacture cars with different size, body style and specifications on the same production line. The largest benefit arising from this set-up would be lower costs due to parts sharing across different models and lower production costs due to a common production line.

UN Global Compact: The UN Global Compact is a strategic policy initiative for businesses that are committed to aligning their operations and strategies with ten universally accepted principles in the areas of human rights, labour, environment and anti-corruption.

VEA (Volvo Engine Architecture): Volvo-developed engine family of the Volvo Engine Architecture (VEA) – four-cylinder petrol and diesel engines that reduce both carbon dioxide emissions and fuel consumption. The engine is approximately 40 kg lighter than today's engine and improves fuel economy by 15–35%, depending on the model. The VEA engines combine high performance with lower emissions and are an excellent alternative for the future.

Volatile hydrocarbons (VOCs): Organic chemicals that have a high vapour pressure at ordinary, room-temperature conditions. Some VOCs are dangerous to human health or cause harm to the environment.

